

2011 SENATE EDUCATION

SB 2281

2011 SENATE STANDING COMMITTEE MINUTES

Senate Education Committee
Missouri River Room, State Capitol

SB 2281
January 24, 2011
13262

☐ Conference Committee

Committee Clerk Signature



Explanation or reason for introduction of bill/resolution:

Relating to concussion management program requirements.

Minutes:

See attached testimony

Chairman Senator Freborg opened the hearing on SB 2281; fiscal note attached.

Senator Berry, District 27 introduced SB 2281 relating to concussive head injuries. He also produced amendments to the bill for consideration (Attachment #1) (Testimony by Senator Berry #2) Sections 1 & 2 are very similar; Section 1 addresses student athletics and Section 2 has to do with athletic activities for children. The Superintendent of Public Instruction shall ensure that any athletic activity that is sponsored or sanctioned by a school or school district in a state and which requires participation of students who regularly practice train and compete, is subject to the terms of a concussion management program. The program is a *crucial* part of this legislation. This will be left to be determined by DPI and also have found they work very closely with the NDHSAA in developing rules and regulations; they see no difference in this. Would hope they work together for the goal of the program to make it easily accessible and uniform no matter where the student athlete resides in the state. Should be easily attainable and readily administered.

A concussive management program will define signs and symptoms of concussion, and will require athletic trainers, coaches, or officials to remove athletes from training, practice or competition if they begin to exhibit those signs and symptoms. Would like to have a licensed health care provider assess them as soon as practical after removal to determine whether a concussion has actually occurred. Then provide that any student that has been removed may only return to practice, training or competition with written authority from a licensed health care provider who has proven abilities to manage concussive head injury.

Coaches to receive biannual trainings, because concussive and mild traumatic brain injury is evolving; seeing the effects of it now and there is ongoing study. Continuing education and update is important.

The NDHSAA already has guidelines set up and there is a website with a course available. This is a 20 minute on-line course (Concussion and sports; what you need to know) that

can be administered free to student athletes and their parents. The course is accredited through the CDC (Centers for Disease Control), and is used by NDHSAA. Feel that is the easiest way for this to be administered. Hope that by using DPI it would provide consistency and continuity that is needed to get information disseminated and everyone involved can be aware.

Section 3: added for clarity; refer to amendments.

His hope and purpose for submitting the legislation is that in his medical practice, has seen head injuries that are received during competition handled in many different ways. Many times the guidelines have evolved and changed over time. He would like to see a more uniform way the brain injuries are handled. For the record, he wants noted that he is a HUGE supporter of team and youth sports, and athletics. Just wants to note that the students have to live in their bodies for the rest of their lives and few will go on to become professional athletes and actually make a living in sports. Want for them to be able to move with their life and schooling in a good fashion on when finished with sports. Also thinks that the legislation will take some of the pressure off the coaches, parents, and players themselves.

Senator Freborg: page 2, line 3—is it possible that every parent won't have the opportunity to view this information electronically. **Senator Berry:** With the internet, the parents should be able to view it at or through the local school. If they don't have a computer at home or access to it, the school could make it available.

Senator Gary Lee: Answered one question where the authorization to return to play by the physician, and think you covered that. Next question would be mom and dad coaching the 4th grade soccer team; what if they don't comply—what if the kid goes back in and they don't follow this protocol? What sanctions are applied or who stands the risk of sending the child back into play? Are there penalties that apply somewhere to the coach that sends the student back in to play? Who determines whether the protocol was followed appropriately?

Senator Berry: Good question; going to leave that for a subsequent testifier that may be able to clear that issue up better than he could.

Senator Heckaman: On line 13 "define the signs and symptoms and require them to remove a student"; are the signs and symptoms always immediately observable? **Senator Berry:** Many of the symptoms that relate to concussive head injury are very readily available, very soon. There is an evolution in concussion as there is any other injury to an organ or portion of the body, and certain symptoms tend to be more acute and occur early on. Some come later. It's not always readily apparent; but usually and mostly. The purpose of this bill is to try and educate all parties as to what those symptoms may be so that when something occurs it is properly dealt with. Goal is to recognize it as early as possible.

Senator Heckaman: Section B requires the coach, trainer and an official to remove a student; you stated that this would probably put those persons at ease. To me it would almost cause more liability for them when it is put into Code the way it is written here. Could see problems when the symptoms are not immediately apparent, that this could cause liability issue for those three—your thoughts? **Senator Berry:** That is a great

question and specifically addressed it by the way this legislation is written. The way it is proposed it is for education and awareness; in fact they have talked to school administrators, coaching associations, NDHSAA, and most coaches are thrilled that this removes from that responsibility of deciding if the athlete should play or not. Most coaches think it is great; let someone who is certified to make the decision to tell them. (Gives an example of how it could relate to a football game).

Senator Heckaman: So then, does this require all of the smaller schools to have a trainer; most of the schools don't have someone to do that. **Senator Berry:** No, that's why they included in the training specifically—officials, coaches and trainers. Coaches & officials should always be at a sanctioned event. Have them evaluated as soon as practical.

Senator Heckaman: Define who is considered a physician under the bill—PA, NP, etc. What does the term mean? Part D—that is a pretty broad term for me. **Senator Berry:** That is addressed in the amendments; the word “physician” throughout the document will be changed to “licensed health care provider”. That means registered, certified, licensed, or otherwise statutorily recognized by the state of North Dakota to provide medical treatment, and trained and experienced in the evaluation, management and care of concussions. If someone weren't trained, advice would be that they become trained, or for the benefit of the student, you would not want them evaluating that individual. Training is not extensive and is something a nurse practitioner would be able to obtain. Would not want to lower the standard of who writes that authority for the player to return to competitive action.

Senator Heckaman: This would then have to be written in to the scope of practice to all positions in this section then? **Senator Berry:** Not quite sure of the question? **Senator Heckaman:** If I have a NP in my area and in order for him/her to see this individual, he/she would have to have that before he/she could see the person or should he/she see them and refer on? **Senator Berry:** Yes, they could see the patient and refer on, or if they felt comfortable in the management, and it was part of their scope of practice they would take care of the patient.

Senator Freborg requests a show of hands of those waiting to testify and request that they keep testimony and questions brief to close the hearing at 11:30.

Representative Grande, District 41, has a degree in sports medicine and spent over 12 years working in the different schools and 7 years in the inner city schools of Minneapolis. While there, a key thing was the follow-up and care. A lot of time the games were early afternoon and parents were still working; wasn't anybody really there to follow up with the kids. Would have been nice to know that she had a way to contact and follow through. The understanding of the parents to know what to watch for as far as symptoms and procedure thus far. Being able to go to the coach and say these types of things have to take place before the child can practice, the trainer may not see the child again for 2-3 weeks. This gets everyone on the same page with the same type of information. Can line up in the scope of care and assure the follow-up with a medical professional.

Small schools that don't have line of care, this will lend to that consistency where the professional steps in. Would offer that the school districts have the 20 minute DVD of

training film and the handouts to it. When the schools have that athletic seasonal meeting with athletes and parents, they can show it, the parents can sign off, get the information in hand, etc. When in doubt, sit them out!

Senator Flakoll, District 44, spoke in support of the bill. Keyed in on the part regarding returning to play, returning to action. Need to provide professional checks and balances to ensure and protect student athletes. The bill is limited to K-12 and don't foresee it being expanded. Likened it to a race horse and how they won't quit running even when injured in a race, and also to his experience as a minor professional baseball manager. There will need to be more amendments for clarification or properly define some sections. Bottom line is that there has to be more in mind than winning the game.

Dr. Jeff Lystad, Sanford Medical Health, Fargo is a physical therapist and a board certified emergency physician; also the primary care provider of Sports Medicine. Have every public and private school, NDSU, MSU-M, etc. as athletes under their care. Sees a lot of kids with concussions; five last week with concussive issues.

The bill is not asking for a diagnosis; symptoms are usually readily available--some subtle, some more complex. It can take up to 10 days for evolution of the injury to occur. Amnesia for the event is common. He has some good testing tools that aren't available everywhere; they use computerized testing (Impact) that they try to pre-test all athletes with. If they have a concussion they can post test to compare the results. He realizes that in many rural areas these tools aren't available, but medical personnel have been diagnosing concussions without a computer for a long time. There are hand based tests that can be done; word or memory recall, numbers backward—a number of things that can be done to get a score on how they are doing. There is no actual test out there—CT scan, MRI, no blood test—right now that will say this is a concussion, other than a bleed that would show up. Consequences of not recognizing concussions and keeping them out are huge; mainstay of treatment is mental & physical rest—from school, practice, play. It can take up to two weeks in about 80% of the cases. Extreme would be post concussive syndrome with migraines, concentration, emotional, etc.

Second impact syndrome is the most serious to deal with; the brain will swell, blood supply interrupted, coma, death, chronic traumatic encephalopathy or punch drunk syndrome. Can see the changes in the brain by dissection after they pass away—this was the forefront with the National Football League. Not a single event is more important than safety of the student athlete.

Bruce Levi, Executive Director of the North Dakota Medical Association testified in support of SB 2281. (Testimony #3 and Attachment #4)

Bev Nielson, North Dakota School Board Association testified in favor of SB 228 but has a couple of concerns from a policy and implementation perspective she has some concerns. It needs to be very clear on line 14 when a coach, trainer or official is "required" to immediately remove; those are pretty strong legal words and want to be sure it is understood that the student either has to have told somebody or they have to literally be exhibiting symptoms before that requirement would go into effect. The NDHSAA has an extensive policy on concussion management which was passed early this fall; they are

here to explain that. There has to be consistency in what schools are required to do for the NDHSAA and by statute.

Section 3, the amendment that Senator Berry had, feel we have to be sensitive to the fact that in the rural communities in North Dakota they are lucky if they have a nurse practitioner or a general practitioner, and don't know what they mean by a certified or trained in head injury management. Difficult for small schools to have someone in the community or even 100 miles that will qualify to make those decisions.

North Dakota School Boards Association supports having something in code if it is consistent and made consistent with the NDHSAA, and it is realistic to implement throughout the state.

Richard Ott, Executive Director, Head Injury Association testified in favor of SB 2281 (Testimony #5); hopefully the committee will attend to issues brought up in earlier testimony. Most important thing in all of this is the youngsters that the bill is trying to serve. Prevention is a major thrust of his organization as a traumatic brain injury is devastating.

Pamela Mack, Protection and Advocacy Project (Testimony #6) testified in support of SB 2281. Need to ensure that all school districts comply with concussion management program. Returning to play is an important issue.

Sherman Sylling, Executive Secretary, North Dakota High School Activities Association (NDHSAA) provided the current procedures for concussion management that was passed by the organization. (Attachment #7) He is also on the board of the National Federation of State High School Associations and they worked on the language to place in all of the rulebooks. The National Federation is in charge of establishing the playing rules for the various sports they have, and the language placed in the rulebooks as shown by the handout. The NDHSAA governs all activities grades 7 – 12 that are under their control. The board of directors recognize that there is a variation all over the state regarding available care for athletes. The school is responsible to have an appropriate health care provider make the determination regarding return to play. As he understands the bill, the health care provider is now going to be determined by statute; not sure how the schools will feel about that, but they are not opposed to having guidelines concerning concussions.

Senator Heckaman: What happens when a student/parent doesn't have health insurance and the school is requesting they seek care-who is responsible for the bill? **Sherman Sylling:** Have not had that problem; with the risk of sports, the liability rests with the parents.

Jerry Jurena, President, North Dakota Hospital Association, testified in support of SB 2281 (Testimony #8) Reviewed amendments and are in favor of those also.

Senator Schaible: Explain the criteria to be a qualified physician to evaluate head injuries? What's the difference between that and any other health care provider? **Jerry Jurena:** Have to defer that to the medical association as we are the hospital association, and don't make that determination.

Blaine Steiner, Certified Athletic Trainer, President of the North Dakota Athletic Trainers Association, testified in support of SB 2281. CAT feel this is a step in the right direction; protecting the health of the youth athletes 18 & under that are participating in sports in the state of North Dakota. Heard that NDHSAA passed a concussion management procedure; this is very similar to the legislation that is being introduced here. Believe it is a good policy and the legislation adds education to the students, parents, and coaches prior to participation. Believe this is a good bill because it addresses all athletics for those 18 & under.

Senator Flakoll: Are there any materials out there that are readily accessible so they don't have to recreate and start from scratch in terms of DVDs, electronically, etc. for the student, parent, coaches, trainers? **Blaine Steiner:** A number of educational materials are available out there; National Federation of High School Activities has a very good presentation on their website that can be viewed for free; quiz at the end and certificate for completion. **Senator Flakoll:** Cost for that is? **Blaine Steiner:** No cost, just log in and become a member of the website.

John Vastag, Director, Legislative Affairs, Sanford Health, testified in support of SB 2281. (Testimony #9) Also presented letters of support from the following:

Roger Goodell, National Football League Commissioner (#10)

Michael Bergeron, Ph.D., Director, National Institute for Athletic Health & Performance (#11)

Phil Hansen, former NDSU and NFL football player (#12)

Ed Lockwood, Certified Master Athletic Administrator, Fargo Public Schools (#13)

No further testimony in favor of SB 2281. *Opposition:*

Gwyn Marback, Assistant Director, School Approval & Accreditation Unit, Department of Public Instruction (#14) testified in opposition of SB 2281. Their opposition is solely due to the huge administrative burden it would have on the Department. As a parent, she has had to attend seminars at the schools for each sports season; this could be incorporated in with the other information shared at those meetings. DPI does not feel it falls within the realm of their duties and responsibilities, and they are concerned that administration of the bill be done correctly.

Senator Gary Lee: Fiscal note was prepared by DPI; would the fiscal note be much easier in terms of accomplishing and cost to other groups—NDHSAA or State Health Department? **Gwyn Marback:** Yes, the NDHSAA has accessible a large amount of medical and sportsman like conduct; a class for coaches and parents. Not sure, since this is new this fall, whether parents are mandated to sign off on it.

Senator Flakoll: If the NDHSAA takes this over, what teeth do they have? **Gwyn Marback:** As a parent and administrator, I know that if an athlete doesn't follow the eligibility regulations they have to forfeit the game or can't play. If the student and parent don't partake in the athletic meetings, the child can't play. Physicals, etc.

Senator Flakoll: who authorizes or denies if a home school student participates in a sport? Is that the NDHSAA, DPI, the school—that make sure the student meets all the requirements to be able to participate? **Gwyn Marback:** The school district itself; all home school students may partake in any athletics or fine arts in the school. They need to show proof of eligibility to that school.

Senator Flakoll: If another school district believes that child is ineligible, and the school district took them on in a illegal manner, who monitors—who do they appeal to? **Gwyn Marback:** Believes it is with the NDHSAA.

Just a point of clarification; there are high school activities that are not covered by the NDHSAA—high school rodeo, AAU, etc. This bill would do that.

No other testimony in opposition to SB 2281.

Steven Spilde, CEO, North Dakota Insurance Reserve Fund appeared to present neutral testimony regarding SB 2281. (#15)

Senator Gary Lee: As this bill is presented, does this add an additional liability to the political subdivisions that they don't currently have? **Steven Spilde:** Obviously establishes a requirement that the policy be adopted and then hopefully the policy be followed; in the Century Code itself he is not aware of other language like this. **Senator Gary Lee:** The political subdivision is the section you are trying to address here; would this bill affect them differently than they are affected now in terms of mom & dad coaching the soccer team that they do for the park board or whatever? **Steven Spilde:** Thinks he would approach it with some trepidation; thinks a tenor of this is that training is going to be provided. If that is done properly, have a good situation. If it is not done, could end up with a claim that is more difficult to defend. If the student is injured and brought back in to play, and something bad happens it could add more liability.

No further testimony; hearing closed.

2011 SENATE STANDING COMMITTEE MINUTES

Senate Education Committee
Missouri River Room, State Capitol

Committee Work SB 2281
January 24, 2011
13293

☐ Conference Committee

Committee Clerk Signature



Minutes:

No attachments

Senator Flakoll: Senator Berry will draft amendments for early next week. Should do a number of things, including removing the fiscal impact, among the many things they hope to have amendments do.

Chairman Freborg: Assume that is the same amendments the sponsor was just visiting with me about? Not anticipating another amendment? **Senator Flakoll:** No; visited with Dr. Berry after the floor session today about the proposed amendments, so it would be one amendment from Senator Berry and Senator Flakoll that would encompass a variety of issues that were discussed, including what he proposed for amendments, some language that may transfer the duties out of the Department of Public Instruction, and to allow whomever administers to receive grants if necessary to make this move forward. Think there was a couple of technical things in there. Really to try and clean up some of the things that have been talked about. Will visit with the North Dakota School Boards Association representative and the North Dakota High School Athletics Association (NDHSAA) to try to get it in an order that is doable. Need to get rid of the fiscal note. It would also include the provision that you asked about during testimony to allow both electronic and/or written version of training; DVD, on-line, etc.

Senator Luick: As far as DPI having the burden of overseeing this; does it make more sense for the Athletic Association to handle this, or is it fine where it's at? **Chairman Freborg:** Doesn't think anyone wants to administer the program. **Senator Luick:** Would think this would be something that would be on the local level; why would it even go to the state level—just for monitoring or? **Chairman Freborg:** Concerning the bill, hoping that the Flakoll amendment will alleviate those problems that we think we have.

Senator Flakoll: When the bill sponsors/authors were originally looking at this, they did have it with the NDHSAA; as sometimes happens when it gets to Legislative Council, they do some things that they feel is appropriate. The challenge with the NDHSAA would be that they don't cover, as an example, rodeo. Thinks that in the right language, there would be a willingness by the school districts to take that on or the NDHSAA.

Senator Gary Lee: In terms of the North Dakota High School Activities Association, they only monitor grades 7 through 12 sports and activities; does not cover youth sports, etc. Maybe they could amend their charter or whatever to make that happen.

Senator Schaible: He was a board member of the NDHSAA, and he is exactly right but it also would not cover PE or other instructional type classes. They would not be the authority body over those also, or any of the other sports events not in the regular season. If it's summer league basketball, open gym, etc. None of that is governed by NDHSAA.

Senator Flakoll: We all recognize there are problems out there and have to figure out how to best manage it. The situation with the NDHSAA is they are a private entity, and so that creates a problem. Would have to put in language that DPI or the school districts could designate or select someone to manage the program if they choose. We would require that somebody in charge of it; certainly NDHSAA would be a logical place—not sure who else it would be. Two options are to leave it with the school district or NDHSAA.

Senator Luick: Would there be any benefit of going through the REA's (Regional Education Association) and their health programs? **Senator Heckaman:** Not all districts belong to REA's; they wouldn't get this information then.

Senator Gary Lee: Section 2 of the bill; talks about the political sub activities. It doesn't look like there is a reporting mechanism involved with that one. Am I reading it correctly? The first section says the Superintendent of Public Instruction shall; Section 2 just says the political subs will do this in terms of concussion management. No real reporting relationship that exists with that subset?

Senator Heckaman: Would like to see some real amendments to take Section 2 out of there and do something else with it right now. Think that's going to be a reporting nightmare when talking about park boards, Jaycees, non profits holding Saturday/weekend tournaments. Don't know that anybody can get a handle on where those are all coming from! Have some problems with parts of Section 1 if still talking about schools. Think Section 2 is going to be a headache.

Also have concerns on the first part; already have gotten e-mails on this bill. They talk about Part B adding a lot of liability on a coach, trainer or an official to immediately remove the student. Thinks they are right now, but if it is put in Code, to her puts more of a liability on those individuals. It is getting harder to get coaches and officials in a lot of rural areas, and they don't have trainers. If there is an added liability, don't want that to be any more stringent than it is right now. She reads a LOT of liability in it, where Senator Berry read less liability into it.

Senator Flakoll: Spoke with Bev Nielson, North Dakota School Board Association, about taking out the "immediately" word on page 1, line 14 and maybe add something like "in a timely manner" as far as the liability. Don't know if the gentleman from the Insurance Reserve felt it added any liability per say, did he?

Senator Heckaman: Also in there, if you take out immediately, says if the student exhibits any signs or symptoms. What if they report any signs or symptoms that isn't seen?

Senator Flakoll: We could check with the Code folks on it, but would think exhibits would include reporting—that is evidence if you are explaining those symptoms. Will check on that. **Senator Gary Lee:** Mr. Spilde thought the section being referred to where that would

belong that was referenced in Section 32.2 is the wrong place to put that. Also seemed to think it would offer additional liability that political subs don't currently have, if I recall his testimony correctly. **Senator Flakoll:** Where does he want it moved to? It is in Section 32.2, not Chapter 15. **Senator G. Lee:** Thought he just felt it was an orphan to Section 32, didn't really fit—although he didn't have another section. He just suggested we take a look to see if we could find some place that was more appropriate.

Senator Gary Lee: Still struggling with Section 2; there are summer programs, parks programs; just seems like it is a statement they are making, not realistic practice. No method of reporting, no sanctions, no anything if you don't do it, other than the outcomes that could happen if the kid is not removed. Not sure what this does at all? What happens if they don't do it? Nothing that penalizes or sanctions them. Increases the level of awareness, but should it be in state law?

Senator Flakoll: The evolution of this bill has sharpened in focus over the last month or so. The bill as originally proposed included all teachers, bus drivers, all school employees. Asked for a redraft that it be taken out. The most important thing to him is Section 1; focus on high school kids where the greatest chance of serious injury could occur. Strongest and fastest kids; more chance of injury and possibility of reinjury if not removed from competition or practice. Would like feedback; just limit to the portions in Section 1 that deal specifically with the sanctioned athletic activities, like football, hockey, soccer?

Senator Schaible: Agree with him; in favor of Section 1 completely. Think Section 2 is not possible with all the entities that have other sports. Only question regarding Section 1—evaluation of a head injury; a lot of times the signs and symptoms don't show up right away. If they want to be completely safe, consider the mechanism of injury. Football for example: if a player has a head on collision, that alone would be enough to take them out of a game or practice. Someone has to make a judgment call when the kids no longer play; they were talking a couple days to two weeks. Being a coach and on the school board, could end up with a disgruntled parent, maybe family doctor, etc. See this as an issue. Real concern from a liability standpoint; if you want to be 100% safe, the kid does not play. Need to have some criteria to take the decision out of the coaches' hands.

Chairman Freborg: Senator Flakoll should have enough input to know how the committee feels and need something, but not a million dollar fiscal note. Should be able to work from comments to work on amendments.

Senator Flakoll: Think no matter what happens, we will never be able to get away from a situation where there could be some litigation brought—that's the world we live in.

Chairman Freborg: Do you think that a coach is safer without any of these regulations than with them? **Senator Flakoll:** No, do not believe. These help provide for them and the families and the student athletes. More safeguards to recognize the problem and to deal with it in a timely fashion. **Chairman Freborg:** Whatever you do, try to minimize the possibility of litigation. Protect all the people involved if you can.


Senator Heckaman: kids are faster, stronger, and bigger today. Whole different level of high school players so we have to address that.

2011 SENATE STANDING COMMITTEE MINUTES

Senate Education Committee
Missouri River Room, State Capitol

Committee Work on SB 2281
January 26, 2011
13418

☐ Conference Committee

Committee Clerk Signature 

Minutes:

See attached amendments

Senator Flakoll handed out copies of proposed amendments and reviewed them (Attachment #1B) Deleted Section 2 to simply that problem. Page 1, line 14 to take out the word immediately, and line 15 added "or reports". Page 2, line 3 changed "electronically" to "in written or electronic form". Page 2 after line 5, taking away any liability and allow a district to contract out for help if they so choose.

Chairman Freborg: Assume that taking our Section 2 will take no money? **Senator Flakoll:** Taking DPI out of the bill should take the fiscal note out; there are free materials available. School districts could seek grants or other funding if needed.

Senator Heckaman: With Section 2 removed, why leave the Superintendent of Public Instruction in the bill? **Senator Flakoll:** These were not drafted by the intern or legislative council so have a different look. The first line of the amendment should remove the line of concern; page 1, line 8 will be replaced and remove that language.

Senator Flakoll made a motion for a Do Pass on the amendments (Flakoll amendments) for SB 2281; second by **Senator Gary Lee**. Motion carried 7-0-0.

No further discussion.

Motion by Senator Flakoll for a Do Pass as Amended to SB 2281; second by Senator Gary Lee. Motion carried 7-0-0.

FISCAL NOTE

Requested by Legislative Council
01/29/2011

Amendment to: SB 2281

1A. State fiscal effect: *Identify the state fiscal effect and the fiscal effect on agency appropriations compared to funding levels and appropriations anticipated under current law.*

	2009-2011 Biennium		2011-2013 Biennium		2013-2015 Biennium	
	General Fund	Other Funds	General Fund	Other Funds	General Fund	Other Funds
Revenues	\$0	\$0	\$0	\$0	\$0	\$0
Expenditures	\$0	\$0	\$0	\$0	\$0	\$0
Appropriations	\$0	\$0	\$0	\$0	\$0	\$0

1B. County, city, and school district fiscal effect: *Identify the fiscal effect on the appropriate political subdivision.*

2009-2011 Biennium			2011-2013 Biennium			2013-2015 Biennium		
Counties	Cities	School Districts	Counties	Cities	School Districts	Counties	Cities	School Districts
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

2A. Bill and fiscal impact summary: *Provide a brief summary of the measure, including description of the provisions having fiscal impact (limited to 300 characters).*

Student athletics - Administration of Concussion management programs.

B. Fiscal impact sections: *Identify and provide a brief description of the sections of the measure which have fiscal impact. Include any assumptions and comments relevant to the analysis.*

Amendment to SB 2281 removes oversight responsibilities from the Department of Public Instruction. Since the school districts will not be under the administration of DPI, no funds are required. In light of this fact, there may be a minimal or no cost effect to school districts for semi-annual training for coaches.

3. State fiscal effect detail: *For information shown under state fiscal effect in 1A, please:*

- A. Revenues:** *Explain the revenue amounts. Provide detail, when appropriate, for each revenue type and fund affected and any amounts included in the executive budget.*
- B. Expenditures:** *Explain the expenditure amounts. Provide detail, when appropriate, for each agency, line item, and fund affected and the number of FTE positions affected.*
- C. Appropriations:** *Explain the appropriation amounts. Provide detail, when appropriate, for each agency and fund affected. Explain the relationship between the amounts shown for expenditures and appropriations. Indicate whether the appropriation is also included in the executive budget or relates to a continuing appropriation.*

Name:	Gwyn Marback	Agency:	Public Instruction
Phone Number:	328-2295	Date Prepared:	01/31/2011

FISCAL NOTE

Requested by Legislative Council
01/21/2011

Bill/Resolution No.: SB 2281

1A. State fiscal effect: *Identify the state fiscal effect and the fiscal effect on agency appropriations compared to funding levels and appropriations anticipated under current law.*

	2009-2011 Biennium		2011-2013 Biennium		2013-2015 Biennium	
	General Fund	Other Funds	General Fund	Other Funds	General Fund	Other Funds
Revenues	\$0	\$0	\$0	\$0	\$0	\$0
Expenditures	\$0	\$0	\$168,640	\$0	\$173,072	\$0
Appropriations	\$0	\$0	\$0	\$0	\$0	\$0

1B. County, city, and school district fiscal effect: *Identify the fiscal effect on the appropriate political subdivision.*

2009-2011 Biennium			2011-2013 Biennium			2013-2015 Biennium		
Counties	Cities	School Districts	Counties	Cities	School Districts	Counties	Cities	School Districts
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

2A. Bill and fiscal impact summary: *Provide a brief summary of the measure, including description of the provisions having fiscal impact (limited to 300 characters).*

Student athletics - Administration of Concussion management programs.

B. Fiscal impact sections: *Identify and provide a brief description of the sections of the measure which have fiscal impact. Include any assumptions and comments relevant to the analysis.*

If this bill were to pass as laid out in Section 1, the Department of Public Instruction would be required to insure all participating student athletes regularly practice or train, and complete concussion management programs before they take part in their perspective athletic event. Presently, the Department of Public Instruction does not provide oversight for athletic activities sponsored or sanctioned by a school or school district, therefore staffing and data collection of such a requirement would have a significant impact on our Department. If the Department of Public Instruction were required to oversee the concussion management program, additional funds would be required for administration, employment of one FTE, ITD services and travel.

3. State fiscal effect detail: *For information shown under state fiscal effect in 1A, please:*

A. Revenues: *Explain the revenue amounts. Provide detail, when appropriate, for each revenue type and fund affected and any amounts included in the executive budget.*

-0-

B. Expenditures: *Explain the expenditure amounts. Provide detail, when appropriate, for each agency, line item, and fund affected and the number of FTE positions affected.*

FTE: \$87,640

ITD Services: \$60,000.00

Travel: \$14,000.00

Administrative Costs: 7,000.00

C. Appropriations: *Explain the appropriation amounts. Provide detail, when appropriate, for each agency and fund affected. Explain the relationship between the amounts shown for expenditures and appropriations. Indicate whether the appropriation is also included in the executive budget or relates to a*

continuing appropriation.

There are no appropriations identified to fund the proposed bill.

Name:	Gwyn Marback	Agency:	Public Instruction
Phone Number:	328-2295	Date Prepared:	01/24/2011

PROPOSED AMENDMENTS TO SENATE BILL NO. 2281

Page 1, replace line 8 with "Each school district that sponsors or sanctions any athletic activity"

Page 1, line 9, remove "sponsored or sanctioned by a school or school district"

Page 1, line 14, after "coach," insert "athletic" and remove "immediately"

Page 1, line 15, after "exhibits" insert "or reports"

Page 1, line 18, replace "physician" with "licensed health care provider"

Page 1, line 21, replace "physician" with "licensed health care provider"

Page 1, line 22, after "or" insert "athletic"

Page 1, after line 23, insert:

"e. Require that all coaches receive biennial training to educate them about the nature and risk of concussion, including continuing to play after a concussion or head injury."

Page 2, line 1, replace "superintendent of public instruction" with "school district"

Page 2, line 2, after "parent" insert "or guardian"

Page 2, line 3, replace "electronically" with "in written or electronic form"

Page 2, after line 5, insert:

"4. This section does not create any liability for, or create a cause of action against a school district, its officers or employees.

5. In order to carry out its duties under this section, any school district may contract for and accept private contributions, gifts and grants-in-aid from the federal government, state government and other sources."

Page 2, remove lines 6 through 27.

#1B-SB 2281
Committee Work¹

Page 2, after line 27, insert:

"SECTION 3. A new section to chapter 15.1-18.2 of the North Dakota Century Code is created and enacted as follows:

Definition. For the purpose of this Act, "licensed health care provider" means a person who is:

1. Registered, licensed, certified or otherwise statutorily recognized by North Dakota to provide health care services or treatment within their scope of practice, and
2. Trained and experienced in the evaluation, management and care of concussions."

Renumber accordingly

#16-SB 2281, Committee Work

Date: 1-26-11
Roll Call Vote # 1A

2011 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2281

Senate Education Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number Flakoll Amendment

Action Taken: ☒ Do Pass ☐ Do Not Pass ☐ Amended ☐ Adopt Amendment
☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By Sen. Flakoll Seconded By Sen G. Lee

Senators	Yes	No	Senators	Yes	No
Chairman Layton Freborg	X		Senator Joan Heckaman	X	
Vice Chair Donald Schaible	X		Senator Richard Marcellais	X	
Senator Tim Flakoll	X				
Senator Gary A. Lee	X				
Senator Larry Luick	X				

Total (Yes) 7 No 0

Absent 0

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Date: 1-26-11
Roll Call Vote # 1B

2011 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2281

Senate Education Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number Flakoll Amendment

Action Taken: ☒ Do Pass ☐ Do Not Pass ☒ Amended ☐ Adopt Amendment
☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By Sen. Flakoll Seconded By Sen. G. Lee

Senators	Yes	No	Senators	Yes	No
Chairman Layton Freborg	<input checked="" type="checkbox"/>		Senator Joan Heckaman	<input checked="" type="checkbox"/>	
Vice Chair Donald Schaible	<input checked="" type="checkbox"/>		Senator Richard Marcellais	<input checked="" type="checkbox"/>	
Senator Tim Flakoll	<input checked="" type="checkbox"/>				
Senator Gary A. Lee	<input checked="" type="checkbox"/>				
Senator Larry Luick	<input checked="" type="checkbox"/>				

Total (Yes) 7 No 0

Absent 0

Floor Assignment Sen. Flakoll

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

SB 2281: Education Committee (Sen. Freborg, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (7 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). SB 2281 was placed on the Sixth order on the calendar.

Page 1, line 1, remove "and a new section to chapter 32-12.1"

Page 1, line 8, remove "The superintendent of public instruction shall ensure that any athletic activity that is"

Page 1, line 9, replace "sponsored or sanctioned by a school or school district" with "Each school district that sponsors or sanctions any athletic activity"

Page 1, line 14, after the first underscored comma insert "athletic"

Page 1, line 14, remove "immediately"

Page 1, line 15, after "exhibits" insert "or reports"

Page 1, line 18, replace "physician" with "licensed health care provider"

Page 1, line 19, remove "and"

Page 1, line 21, replace "physician" with "licensed health care provider"

Page 1, line 22, after "or" insert "athletic"

Page 1, line 23, after "trainer" insert "; and"

- e. Require that each coach receive biennial training to educate the coach about the nature and risk of concussion, including the risk of play after a concussion or head injury

Page 2, line 1, replace "superintendent of public instruction" with "school district"

Page 2, line 2, after "parent" insert "or guardian"

Page 2, line 3, replace "electronically" with "in written or verifiable electronic form"

Page 2, after line 5, insert:

- "4. This section does not create any liability for, or create a cause of action against, a school district, its officers, or its employees.
- 5. To carry out its duties under this section, a school district may contract for and accept private contributions, gifts, and grants, or in-kind aid from the federal government, the state, or any other source.
- 6. For the purposes of this section, "licensed health care provider" means an individual who is registered, licensed, certified, or otherwise statutorily recognized in this state to provide health care services or treatment within the individual's scope of practice and who is trained and experienced in the evaluation, management, and care of concussions.

Page 2, remove lines 6 through 27

Renumber accordingly

2011 HOUSE EDUCATION

SB 2281

2011 HOUSE STANDING COMMITTEE MINUTES

House Education Committee
Pioneer Room, State Capitol

SB 2281
03/23/11
15890

☐ Conference Committee

Committee Clerk Signature



MINUTES:

Chairman RaeAnn Kelsch: We will open the hearing on SB 2281.

Sen. Spencer Berry: sponsor. I can make some opening comments as to the emphasis behind this bill. This was something that focuses on head trauma and as it relates to concussions which is considered minor traumatic brain injury and it being recognized as something that has immediate and ongoing effects. I mentioned that this bill basically begins and ends with our North Dakota youth and that is our primary emphasis. These individuals will be living in that body and using that brain for the rest of their lives and when they are in sports which is an extracurricular activity this is something that is meant to enhance their education and to help them with their overall development. This bill in no way diminishes that role. I myself am an extreme supporter of extracurricular sporting activities and this bill does not in any way diminish that. It is simply trying to recognize that during the course of those events things can happen. We treat things like sprained ankles, separated shoulders and other injuries appropriately and when it relates to concussions, over the years I have seen concussions treated in various ways. There have been studies in terms of how to handle concussions and none of these have ever really been formalized or followed by institutions. What we end up with is a mismatch on how someone is evaluated and then when do we return these students to activities. The best way to think of a concussion is like a bruised brain. That is essentially what happens. The bottom line is to recognize the symptoms that might indicate that an individual has a concussion. You want to help coaches, officials, trainers, the athletes, and the parents to recognize those symptoms so those kids can be properly evaluated, identified and treated so those individuals don't return to play before that brain is ready to go. Studies definitely show that if you return to play before a concussion is healed appropriately, you are at greater risk to sustain another concussion and in fact those concussions may be worse. There are long term issues associated with those injuries. The genesis of the bill is to help these kids. We know that concussions sustained in our youth take longer to heal and possibly have a longer lasting impact. We need to set the appropriate guidelines in place to our athletes get that appropriate evaluation and treatment.

Vice Chair Lisa Meier: What would be the immediate symptoms of a concussion?

Sen. Spencer Berry: There are many different things like confusion, headache, loss of memory, or what we call para-amnesia and confusion, occasional discoordination, and

those would be the most common things. Sometimes it is so mild it can be a feeling of irritability or not feeling well.

Vice Chair Lisa Meier: What is an adequate amount of return time after an athlete has been diagnosed with a concussion?

Sen. Spencer Berry: It varies on the individual. In following athletes that have been diagnosed with a concussion we look for those symptoms to persist. Usually you will see provocation which usually involves them running up and down the sidelines or some kind of physical activity because we know physical activity will bring those symptoms back faster. . We watch for that. Generally we grade concussions on grade 1, grade 2, and grade 3. First and foremost if someone loses consciousness for any length of time they are immediately moved to the highest level even if it is a brief loss of consciousness. The grade 1 is a minor one in which someone experiences those symptoms and they aren't going away so they are held out of competition and then you wait for them to return to their normal status at rest. They are then evaluated and can gradually start increasing their activity to see if it brings any of the symptoms back. Right now the rule of thumb is after a first concussion we would like the individual to be withheld from activity for 1 week. That is something we are finding isn't being followed because if the student feels better they put them in the game that night when in fact they aren't actually ready to go that night. Studies suggest withholding that individual for 1 week and after that if they aren't having any signs or troubles during activity you can turn them out. Sometimes after a second concussion they say 2 weeks and 3 weeks for a third. Sometimes after a third they recommend not playing any longer that year.

Rep. Bob Hunsakor: In many of our smaller and rural schools in order to have enough coaches they have to hire someone in the community. My question has to do with those folks that may be there. Are they also subject to the training that is covered? It says require each coach receive biannual training. Would those folks be included in this?

Sen. Spencer Berry: The short answer is no. If you look at the bill as it is now it is based on athletic activities or events that are sponsored by the school. If it is something that has to do with the American Legion or something of that nature, at that point that is not included. Initially there was a broader reach having to do with political subdivisions and the thought there was things like F-M football or the hockey organizations which come through the county or something of that nature. At this point this has to do with the school district.

Chairman RaeAnn Kelsch: I do have an amendment. The way it was crafted on the senate side is it was in the wrong section of code. It dealt with the insurance section in political subdivisions. I have had several individuals contact me and say they would like this to include those sporting activities that require a fee such as YMCA programs and those types of programs. They would have to have awareness and those amendments will be offered to address an issue that a lot of people are concerned about.

Rep. Bob Hunsakor: I'm talking about just school and not outside of the school. If a school has a team and they hire someone from the community to come in and coach that team, does that individual need to take the training that other coaches would have to?

Sen. Spencer Berry: If it is involved with the school, then anybody that is involved in coaching or initiating the athletic trainers would be included in this. Again this is for the benefit of our youth in North Dakota. There are some amendments out there but I haven't had a chance to look them over. I would accept and be in favor of any amendments that would help strengthen the bill.

Chairman RaeAnn Kelsch: There is no fiscal effect to it the way the amendments are drafted.

Rep. Lyle Hanson: Does this cover both public and private?

Sen. Spencer Berry: My understanding is that this has to do with just public school systems.

Rep. Corey Mock: In subsection 5 it talks about school districts being able to receive private contributions, gifts, grants, and in-kind contributions. Is that intended to cover the expenses of the training or is that also intended to cover the expenses that is laid out in subsection 2C where it lists the requirement for students to be examined by a physician? Is that an obligation of the school district or is that not part of this?

Sen. Spencer Berry: My understanding is the in-kind contributions and gifts were put in there as a matter of setting up the program as far as the evaluation. My understanding is that the evaluation is subsequent which can be done by an athletic trainer with the team or anything beyond that, but that in itself was not the responsibility of the school district.

Rep. Karen Rohr: Who will administer the training to the coaches and who will keep track that the training actually occurs?

Sen. Spencer Berry: The school district will be who is in charge of that portion of the program in making sure it is available and then documenting it.

Rep. David Rust: I have a question about the licensed healthcare provider. Does that mean doctor, PA, nurse practitioner, or who else would that include?

Sen. Spencer Berry: If you look on the back portion of the bill it defines what that practitioner is. Basically you have enumerated a number of positions and individuals that are licensed such as registered EMTs and individuals that have experience in the recognition and treatment of concussions. As part of what they do we want them to be familiar with the management of concussions.

Chairman RaeAnn Kelsch: We are seeing a lot more of that verbiage put into law this legislative session in particular. The reasoning behind it is in some circumstances you don't have access to a physician at that point so it may be that the person that needs to do the assessment is a nurse practitioner which there are three different levels of those. We are seeing a lot more of that. It is kind of becoming the new terminology given the fact that in our rural areas we sometimes don't have access to physicians.

Rep. David Rust: I was just curious for myself about what is involved. Is it an RN? I am guessing it would be.

Chairman RaeAnn Kelsch: They are licensed so they would be included. It would include the closest healthcare provider that you could probably get to assess the child at that point and an athletic trainer is certified and trained to know the symptoms of a concussion so they would be one that could assess and say that child should not go back in and should be seen by a physician. It is not to have them taking the place of physician's diagnosis.

Rep. Bette Grande: co-sponsor. I want to speak on behalf of this bill. As a certified athletic trainer who has been licensed for many years, these are issues we have dealt with quite often. The fact that advancements in technology and diagnostics for concussions is so prevalent in our society today and with kids participating in higher levels of athletics at a younger age, this is a critical piece that is a protective piece for the children. That is why this bill comes before you. I thought it was interesting watching the hockey tournament this last weekend and watching a lot of the NHL games. The NHL and NCAA are picking up on this exact issue and they are doing large programs geared toward the diagnosis and treatment of these concussions and I think we are at the forefront of information on this as we want to really have our hands on this so that we can protect the children.

Chairman RaeAnn Kelsch: We are going to talk about the amendments next. I don't think that they are matching up exactly the way I wanted them to. We will talk about them and then I think we can probably amend it to include the other sections that seem to be missing.

Rep. Bette Grande: That was really my only concern and also when we talk about examination on section 1, number 2, letter c, it got changed to physician instead of licensed.

Chairman RaeAnn Kelsch: We are going to change that back again.

Rep. Bette Grande: That would be my only concern I will leave that for you to address. We do have problem the rural areas if we don't allow for the full licensing there.

Rep. Bob Hunsakor: What I read is that this covers students involved in some type of athletic event or program but this can also happen in recess play and other activities in school. Does that need to be addressed?

Rep. Bette Grande: It would be great to be all encompassing but I think right now we need to get a handle on what we are doing with organized sports. Recess play is going to include a whole different gamete of things for the school district. Right now we want to hold on to the athletic portion of it where we have some control.

Chairman RaeAnn Kelsch: Further questions? Thank you.

Sen. Tim Flakoll: cosponsor. (Testimony attachment 1).

Rep. Brenda Heller: Was this bill patterned after another state and are you aware of any other state that has this law and how it is working?

Sen. Tim Flakoll: This is early on in the process and things are still being added. I want to add a couple things. Rep. Bob Hunsakor asked about recess play. The reason why we really focused on athletics is we because we were in the process of having death by fiscal note. If we would have had to provide training for 9,000 teachers and the like we would have that fiscal note tied to that and we really wanted to focus initially on those students that are involved in head to head activity and are in many instances the quickest and strongest. We had to pull back from the early discussions. This bill was brought in late so we were still having those discussions early on. We initially decided to limit the scope and I think originally there was a fiscal note on it from DPI.

Chairman RaeAnn Kelsch: Did you address the nonpublic schools in your discussions? The only reason I ask this is because we have Trinity, Shanley, and Shiloh. We have a number of nonpublic schools that do have athletic teams. Do they not get concussions so we don't need to worry about those kids or how does that work?

Sen. Tim Flakoll: I don't remember any discussion about the nonpublics to be honest. I don't know that it would be a problem for me to add those in.

Chairman RaeAnn Kelsch: Those kids are playing in sports just like everyone else and if we are trying concerned about our athletes in our state, I sense that we should be including all athletes in the state and not excluding some.

Rep. Karen Rohr: Is it your intent that once this becomes a standard that this law would be sunset?

Sen. Tim Flakoll: No. There was a question about the dollars and that was more for doing the training and having people being able to identify. The intent was not taking care of the athlete after a situation has occurred with things like medical expenses. That was the intent because there was talk about base training. We also know that the North Dakota Trainers Association has some videos/DVDS/online material that provides training and continued training.

Chairman RaeAnn Kelsch: To respond to Rep. Karen Rohr's questions, if it is not in law I can tell you that it won't be done. Whether it becomes a standard or not, if it is not something they are told to do, the school districts won't do it.

Rep. Karen Rohr: I appreciate that.

Rep. David Rust: Item 4 says it does not create any liability for creating cause of act against a school district, its officers, or its employees. In the back of my mind I don't think that is working. It is hard for me to think that if something happened to a student that my attorney would still be untouched. How do you see that section? Can you delve into that a little bit?

Sen. Tim Flakoll: It was more so that it doesn't increase the liability or add to it. By adding this program it doesn't increase their liability.

Chairman RaeAnn Kelsch: Student athletes and their parents sign the waivers and there are all those documents that the kids have to sign before they participate in sports. I do have to say, being married to an attorney, that even though you have signed those things you can still have a lawyer.

Sen. Tim Flakoll: On page 2, line 6, it does not create any new liability. They can certainly be sued for the same things they could before but it doesn't add to those things.

Rep. David Rust: I am not so sure that is what will happen. In all reality if you pass a law and everyone is supposed to be aware of this, but if you didn't quite take care of business like you should have, I think because of the additions in law and so forth that you have just increased your chances of beings sued. That is my personal opinion. The threats of lawsuits are there and we have seen in the last couple of decades that schools are just a wonderful thing to sue.

Rep. Mike Schatz: I'm thinking about when I was coaching football. I think number one, with any kind of injury they were out of the game and they weren't let back in. I was very successful with that. I never really had anybody get hurt. When I'm looking at this bill I'm thinking about motocross, car racing, rodeo and other things that our adolescents are involved in that are more dangerous than what is going on in our school systems. Are there any laws governing these activities?

Sen. Tim Flakoll: I'm not aware if there is or isn't. Some of those have their own rules and regulations. I think the North Dakota High School Rodeo Associations has some rules governing them that are unique to their sport which is arguably the most dangerous sport there is. I think this would help if we have the students trained and in some cases the parents trained that if they do delve into other activities outside school activities that they would be better able to understand the symptoms of the concussions. This doesn't go to those things like motocross because we had to reign back and limit our scopes. The CDC estimates that there is about 135,000 sports and recreation traumatic brain injuries including concussions per year among children ages 5 – 18.

Rep. Bob Hunsakor: In my early years we had a sixth grade girl run across the playground and get hit with a shot put. It hit her head and it caved her head in slightly. She was flown to Mayo Clinic and I went with her into the emergency room and they screwed a corkscrew into that and popped that out again. She was young enough that they could do that. That is just my story. My question has to do with recess. It would seem if this bill is passed, superintendents would talk to their staff and their teachers that if something would happen on the playground then they should be talking to the coaches that are trained to look at that student. Wouldn't the schools want to take care of that?

Sen. Tim Flakoll: I think there will be transference of knowledge beyond those that are required to be trained in here.

Chairman RaeAnn Kelsch: I believe some schools have policies regarding their recess and if a child is hit in the head, the child's parents are called and the child is to be assessed by a physician. I know in Mandan we have a policy that if a child is hit in the head or hits

their head, the parents or guardians are called to have that child assessed. Further questions? Further testimony?

John Vastag – HPC/Sanford Health: This bill was actually written and modified from a bill in Washington State which is the first in the country to be passed. Since then, prior to coming to session, there were nine states that had passed very similar legislation. Just last week South Dakota signed very similar legislation and I believe Colorado signed theirs earlier this week. (Refer to testimony attachment 2). I have a couple comments on the amendments. The intent of the amendment was in essence to add section 2 to chapter 23-12. When we had it on the senate side it was inadvertently placed in the wrong chapter of state law. The other change would be wherever the term physician is used, we would continue to use the term licensed healthcare provider.

Chairman RaeAnn Kelsch: What it looks like is that it was stopped after number 3.

John Vastag – HPC/Sanford Health: After 3D yes because 3E was totally eliminated which required biennial training.

Chairman RaeAnn Kelsch: So 2E needs to be put back in.

John Vastag – HPC/Sanford Health: The reason we added the biennial training is because that corresponds directly with what coaches are already required to do for CPR and First Aid. It matches up with that perfectly and that is what they requested for the biennial training. If you look at the amendment in 2C where it says after the student provides to the student's coach, that amendment piece was put in there to keep us from the HIPPA laws. If you look at the original bill on 2D, it says written authorization for the student's return to the student's coach or athletic trainer. Our folks from the medical associations thought that it would violate HIPPA laws so that piece of language needs to be transferred into the original bill where the written authorization comes back to the student and not to the student's coach or trainer.

Chairman RaeAnn Kelsch: I think we are going to have to ask Anita Thomas about the amendment because it really isn't making sense to me because first of all E should be included on the first page.

John Vastag – HPC/Sanford Health: After number 6 we should basically have section 2 of the amendment.

Chairman RaeAnn Kelsch: She doesn't have the liability part in here and she doesn't have licensed healthcare provider in here versus physician so we will get her down here to talk about those issues because it would seem to me that those would be important to be included. Basically committee members this piece becomes the bill because it is a hog house.

John Vastag – HPC/Sanford Health: Correct and that is not what we want. We want the original bill with a couple of amendments that you recommend.

Chairman RaeAnn Kelsch: Any questions?

Rep. Phillip Mueller: Has Sanford Health been involved in training and if not will they involved in helping achieve the requirements that section E is talking about?

John Vastag – HPC/Sanford Health: Yes. Actually the North Dakota Athletic Administrators Association is holding a conference on April 4, in Fargo and they will be providing concussion management to those athletic administrators. We are also developing a center of excellence for sports medicine.

Chairman RaeAnn Kelsch: Further questions? Further support?

Jack McDonald – State Association of Nonpublic Schools: First of all we do support the bill. One of the problems you have with the amendments is that the amendments were made to original bill and not the engrossed bill. The engrossed bill contained the changes that we discussed about licensed healthcare provider. That would be very important to physical therapists. Physical therapists work with these students athletes everyday as part of their training. In the engrossed bill the language was such that it would be the licensed healthcare provider who would become eligible for this with some additional training or continued education. That would be very important on the engrossed bill on section 6 that it would stay in the bill. Secondly we testified on the senate side that while the nonpublic schools are not included in the definitions, as the chairman has noted the nonpublic schools are doing this now. They all have concussion programs now and they would certainly go along with this program if you included the public and nonpublic schools. We intend to do the same for our athletes that the public schools are doing for their athletes. We do ask you to be especially careful that there are licensed healthcare provisions in there. As far as the YMCAs are concerned, we have had some discussions already about this and they are going to start a program very similar to this. I am not sure how you would include that in this bill since they are not governed by any state agency. There was a discussion before about including any program for which a student athlete would pay a fee. If you did that of course you would pick up the park board programs.

Chairman RaeAnn Kelsch: That is what the amendment says.

Jack McDonald – State Association of Nonpublic Schools: I think that is what the amendment was aimed at. I think the problem with the amendment is that it wasn't done on the engrossed bill.

Chairman RaeAnn Kelsch: It was not on the engrossed bill but it needs to be done on the engrossed bill. The changes that were done in there are good changes we want to make sure those changes are included. We will make sure we get the bill done correctly.

Jack McDonald – State Association of Nonpublic Schools: If your choice was to include nonpublic schools you could just take the word district out. That would cover the nonpublic schools.

Chairman RaeAnn Kelsch: Questions? Further Support?

Jerry Jurena – President, North Dakota Hospital Association: We want to be on record for supporting this bill.

Chairman RaeAnn Kelsch: Thank you. Further support?

Courtney Koebele – North Dakota Medical Association: We are also in support of this. We were concerned in the engrossed bill on page 1, line 20, that the written authorization should be given to the student and not the trainer or coach for HIPPA.

Chairman RaeAnn Kelsch: Is it written correctly now?

Courtney Koebele – North Dakota Medical Association: No. The engrossed bill is not.

Chairman RaeAnn Kelsch: It is written correctly on the amendment though.

Courtney Koebele – North Dakota Medical Association: Yes it is on the amendment.

Chairman RaeAnn Kelsch: That is contained in subsection D. It is only after the student provides to the student's coach. Further Questions? Further Support? Opposition? Neutral?

Rep. Brenda Heller: I have a question for John. How difficult is it for the coaches to get to a training seminar and will they be required to pay their expenses to go?

John Vastag – HPC/Sanford Health: They can do it on the computer. There is a fee online session. It takes about a half hour and it is very thorough.

Chairman RaeAnn Kelsch: It is my understanding that the referees have meetings where they get together and have specific training sessions so you would pick up the referees doing that. The coaches also get together but it is nice to know about the free online session. Could you tell us that website?

Rep. Mike Schatz: It is on the High School Activities Association website.

John Vastag – HPC/Sanford Health: If you look through Mr. Hanson's testimony one of the things he comments on is the high school official's standpoint as well. As high school officials they need to be more educated as well. On ESPN there is a new survey that they just did and the numbers were astounding. It asked a couple key questions and one was if you are in a championship game, would you pull your star athlete. It asked it of the coaches, the parents, and the athletes and the percentages that said yes were incredible. The next question was if your son or daughter had a chance to become a pro would you allow them to play knowing that he/she had a severe concussion. Those percentages were all above 10% and 20% for the parents and athletes. One of the athletes in that survey commented that it is a wealth or health question and said he would take wealth any day. We have a tremendous amount of education we need to do out there.

Rep. Karen Rohr: I have a similar story. When my son was old enough to play football I asked the coach specifically what he would do if my son had a head injury or broke his neck. He told me if you give me a boy I will give you a man.

John Vastag – HPC/Sanford Health: Unfortunately that type of thing is out there.

Chairman RaeAnn Kelsch: Further questions? We will close the hearing on SB 2281.

2011 HOUSE STANDING COMMITTEE MINUTES

House Education Committee
Pioneer Room, State Capitol

SB 2281
03/29/11
16130

☐ Conference Committee

Committee Clerk Signature



MINUTES:

Chairman RaeAnn Kelsch: We will open on SB 2281. I have amendments that have been drafted but I am not really satisfied with them. The approach that was taken was more of a hog house and I think the approach we were looking at was probably a little bit more aligned. I think we will walk through this and if this is the way we want to go with the amendments then we can deal with them.

John Vastag – Sanford Health: (Attachment). The document you have before you is the original bill as passed by the senate with the amendments highlighted in yellow. The amendments that were sent down from Legislative Council were basically hog housed and left out specific things like athletic trainer, they changed the word defined to list, they changed licensed healthcare provider back to physician, took out some definitions and it kind of messed the whole thing up. One thing I did note as I was going through this, if you remember in our testimony last week one of the questions was how we cover private schools. If you look at line 8, page 1, it says each school district. What we would have to do is strike the word district and just say each school. The highlighted part on page 1 was the same as passed by the senate except we expanded that definition and added 2.b.3.1. and 2.d.3.2. Basically what that does is it allows if there is licensed healthcare provider in the stands and is notified of something, that individual can help. On line 5, of page 2, we would have to take out a. The highlighted part is the HIPPA where we deleted where it said licensed healthcare provider provides written authority. That violated HIPPA rules so we changed that to state that the student has to provide that authority back to the coaches. That was just a clarification to make sure we are on line with the HIPPA regulations. On lines 13, 19, and 20 we would have to take out district and that would allow it to also cover the private schools. Section 2 was the new section that basically duplicates section 1 except that there is a non-school sanction for youth activities.

Chairman RaeAnn Kelsch: That was basically the information that we had seen in the amendment that was drafted by Legislative Council.

John Vastag – Sanford Health: Correct.

Rep. Lyle Hanson: Do you have to take district out on line 9 on the last page?

Chairman RaeAnn Kelsch: Yes you would and it would say that it does not apply to schools.

John Vastag – Sanford Health: I apologize for not catching that earlier.

Rep. Phillip Mueller: The new yellow section really deals with YMCA and park boards and all that. I guess I didn't know we wanted to go that way.

Chairman RaeAnn Kelsch: There were a number of individuals that came to me and said this needs to be addressed because that is where more of these incidents happen. The senate tried to address it with the way the bill was introduced initially. It was put into the political subdivisions section so that amendment was removed because they didn't know which way to go. If you look at the last pages, it does not apply to schools that are governed by section 1 of this act or any other political subdivisions. Park districts are exempt from this because that was their concern but if you pay a fee to belong or to participate that is where this came from. I had several different medical groups come to me and say it was introduced for a reason that they felt this was something else that needed to be addressed if we are going to address concussion management.

Rep. David Rust: What happens if you have a park district that requires fees because there are park districts that require fees?

John Vastag – Sanford Health: My understanding is that they would be exempt because political subdivisions and park districts would be exempt.

Rep. Phillip Mueller: Who are we talking about then?

John Vastag – Sanford Health: We would be talking about, for an example in Fargo it could be the youth hockey groups, the youth soccer, there is a lacrosse team, and groups like that.

Rep. Lyle Hanson: Do both teams have to have a trainer there or just one?

John Vastag – Sanford Health: Just one. In fact there doesn't have to be a trainer at all. It could be a coach. A lot of the small schools don't have trainers and that is why we went with a licensed healthcare professional so they could have somebody other than the athletic trainer there. The larger schools have the luxury of an athletic trainer.

Chairman RaeAnn Kelsch: If we decide we want to go this direction we will just adopt and we will get the amendments later. John brought up one issue with me and I do want to bring it up to the committee and see what your thoughts are regarding this. If you go to the last page in subsection 6, the first time I read it I didn't have that much of an issue with it but the more I read it the more of an issue I have with it. That is on line 7 where it says or treatment with an individual scope of practice and who is trained and experienced in the evaluation management in care of concussions. I am not sure that is something that we want to put into code. I think you could put a period after practice and that would probably be just fine.

Rep. David Rust: You would certainly be limiting the number of individuals. That does decrease the pool.

Rep. Karen Rohr: I think the key is in the first part of the statement where it says licensed. Anytime you are licensed the scope of practice generally includes the evaluation management in care of concussions. Specifically which profession are you addressing there?

Chairman RaeAnn Kelsch: All I'm saying is that if you are a licensed healthcare provider and you meet all of those requirements, is it necessary to add the language that says who is trained and experienced in the evaluation management in care of concussions? Is it ok to say or treatment within the individual's scope of practice which would include that?

Rep. Karen Rohr: Who made the recommendation to include that and do we know what their intent was?

John Vastag – Sanford Health: It was included as a recommendation from our Sports Medicine Director and his intent was we didn't want to have a dermatologist, OBGYN, or someone like that being the one that signs off. In fact we have had one incident in Fargo already where a young man was pulled in the first quarter of football and the family knew a doctor and that doctor signed off and sent the kid in. That is why we were trying to avoid that. At this point it really isn't a definable term. I personally have a problem with putting in something we can't clearly define in the law.

Rep. Karen Rohr: I guess I would agree with you to put a period after practice.

Rep. Mike Schatz: I'm not sure I like this bill. First of all there are a lot of words here. To analyze each one of them as a coach, if I'm out coaching I'm not sure what some of these things mean. On the second page it says provided that any student who is removed in accordance with this subsection may be allowed to return to practice. Can they come watch the practice? As a coach I wanted my kids out there watching what we were doing no matter what. Can they come to practice and run around and do conditioning? I'm not sure what that means. There are a lot of things in here that without studying this thoroughly, I am not sure I would want to vote for it. Are all kids that play extracurricular activities involved in this? Is this everything from first grade on up?

Chairman RaeAnn Kelsch: It would be school activities both public and nonpublic and then it would not cover park district sports but it would cover some of the youth associations.

Rep. Mike Schatz: Some schools start in first grade with some kind of organized activities. So you are saying that the coach or whoever is supervising them has to have concussion management?

Chairman RaeAnn Kelsch: Yes. And I think the majority of them already have it because it is my understanding that most are taking that now as part of their training.

Rep. Mike Schatz: I would disagree because some are volunteers. For those younger grades a lot of small schools are short of people so if someone will come and coach them they will be welcome. One thing I want to point out is that as a coach one thing that used to bother me was my pay and the amount of responsibility that is thrown on me. If I am going to be the doctor, that requires a lot of responsibility. You are making some real judgments here. I'm just throwing these things out there as concerns.

Rep. David Rust: I'm going to piggy back off of Rep. Mike Schatz's comments. I have a granddaughter in kindergarten and they have a basketball program. They are short of some people so my son-in-law is helping out and he probably hasn't gone through the training. I think in smaller schools it is going to be difficult to find people and I still think you are setting yourself up for lawsuits. I think if something goes wrong and there is a law, my attorney will be in touch. It is probably the unintended consequences of the bill but it is probably more significant than what meets the eye.

Rep. Karen Rohr: I would have to say that you impose just as much of a risk by doing nothing.

Rep. Lyle Hanson: On page 1, line 8, it says any athletic activity. Would that include tennis, golf, and things like that?

Chairman RaeAnn Kelsch: It does include those. It included any athletic activity.

Rep. Lyle Hanson: So if Bismarck is the host team, would they be responsible for having a doctor or a trainer there?

Chairman RaeAnn Kelsch: The way that high school activities work right now is that the host team always has an athletic director available. That has been policy for a long time. I know in Mandan when my kids were playing that they contracted with one of the hospitals or groups and had them there. I don't know what they do out in the rural areas but I know that is what they do for tournaments and class A.

Vice Chair Lisa Meier: What about gym class?

Chairman RaeAnn Kelsch: It is not a high school activity. It is a class. I am sure you could get a concussion in class as well.

Vice Chair Lisa Meier: So this doesn't apply to gym class?

Chairman RaeAnn Kelsch: No. I'm guessing it would be the same as any class. I suppose you could get a concussion in any class. I don't know how they handle that.

Rep. Bob Hunsakor: I think any time there would be a concussion there is always the risk of a lawsuit but the benefits of this legislation are much greater than the negative side of it. I think it is a good thing.

Rep. Karen Rohr: I also think it is a reasonable attempt to make a difference in these kids.

Rep. Phillip Mueller: While I don't disagree with anyone, I am certainly more comfortable with the first section of the bill. I have some difficulty with the highlighted areas. The reason for that is the small community. There is a group of kids that play t-ball in Wimbledon and I don't know who sponsors them or if the parents line it up but I can guarantee you that those folks don't have training or that they are going to have a brain concussion expert there. What will that part of this bill do for that and those folks that want to do those activities?

Chairman RaeAnn Kelsch: Do they pay a fee to do it?

Rep. Phillip Mueller: No.

Chairman RaeAnn Kelsch: Is it part of the park board?

Rep. Phillip Mueller: No.

Chairman RaeAnn Kelsch: There wouldn't be any responsibilities for them. That looks to me like it is just a group of people getting together and having their kids play t-ball. It does lie that out in the amendment.

Rep. Joe Heilman: I have a question for John about the online courses referenced in testimony. Have you ever taken one and how long does it take?

John Vastag – Sanford Health: I did take it and it is about a half hour course. It is free of charge through the CDC and it is also available on the High School Activities Association's website.

Rep. Joe Heilman: Is there a certification that you print off when you are done for a record of it?

John Vastag – Sanford Health: Yes.

Rep. Joe Heilman: I guess a 30 minute course isn't too much to ask.

Vice Chair Lisa Meier: How often are those courses updated?

John Vastag – Sanford Health: What we did here was we put it in as biennial so it would tie into the coaches' training for CPR and First Aid. It would tie into their normal training program that they already have to do.

Vice Chair Lisa Meier: So every two years you are updated and current?

John Vastag – Sanford Health: Correct.

Rep. Mike Schatz: In section 4, page 3, at the bottom it says this section doesn't create any liability for, or create a cause of action against the activity's sponsoring body. What about the coach? Are there any liability immunities in there for the coach? If there isn't, I really have to look at that because it is hard enough to get volunteers to coach things as it is and if they are finding out they could be sued, that is going to make it even harder.

John Vastag – Sanford Health: We did not duplicate because North Dakota has some of the best volunteer provisions in statute that protect volunteer coaches already. We did not choose to duplicate that in this bill. When South Dakota passed this bill they adopted North Dakota's statutes for volunteer coaches. It is already covered in statute. Our coaches are covered.

Chairman RaeAnn Kelsch: Further discussion?

Rep. Karen Rohr: Motion for a do pass on the amendments.

Rep. Karen Karls: Second.

Chairman RaeAnn Kelsch: I want to be clear. Is your motion to also include taking out district, placing a period after practice on line 7, and then deleting the rest of the language?

Rep. Karen Rohr: Yes.

Chairman RaeAnn Kelsch: Committee discussion?

Rep. Lyle Hanson: On line 8 where it says any athletic activity, why do you have to have someone there for a tennis match?

Chairman RaeAnn Kelsch: Do class B schools have tennis?

Rep. David Rust: They have golf and track.

Chairman RaeAnn Kelsch: We in golf you can get hit in the head with a golf ball or golf club.

John Vastag – Sanford Health: Line 26, page 2, has that same terminology we want to take out just so we are consistent.

Chairman RaeAnn Kelsch: Further discussion on the amendment? We will try a voice vote.

Voice vote: motion carries.

Chairman RaeAnn Kelsch: We now have amended SB 2281 before us. What are the wishes of the committee?

Rep. Karen Rohr: I move a do pass as amended.

Rep. Joe Heilman: Second.

Chairman RaeAnn Kelsch: Committee discussion?

Rep. David Rust: For reasons stated earlier I do not support the bill.

Rep. Phillip Mueller: I had my reservations but I am going to support the bill. We often times get accused around here of doing a little more micromanaging than we should. Certainly brain injury concussions are a big deal but I think we are getting on the edge of where we ought not to be.

Chairman RaeAnn Kelsch: Further discussion? Seeing none we will take the roll on a do pass as amended on SB 2281. Motion carries. We will close on SB 2281.

**11 YEAS 3 NAYS 1 ABSENT
CARRIER: Rep. Karen Rohr**

DO PASS as Amended

March 29, 2011

VR
3/30/11
103

PROPOSED AMENDMENTS TO ENGROSSED SENATE BILL NO. 2281

Page 1, line 1, after "15.1-18.2" insert "and a new section to chapter 23-12"

Page 1, line 7, remove "district"

Page 1, line 8, remove the first underscored comma

Page 1, line 13, remove "that student exhibits or reports any sign or symptom of"

Page 1, replace line 14 with ":

- (1) That student reports any defined sign or symptom of a concussion;
- (2) The coach, athletic trainer, or official determines that the student exhibits any defined sign or symptom of a concussion;
- (3) If the coach or official is notified that the student has reported or exhibited any defined sign or symptom of a concussion by:
 - (a) A licensed, registered, or certified medical practitioner operating within the individual's scope of practice; or
 - (b) Any other licensed, registered, or certified individual whose scope of practice includes the recognition of concussion symptoms."

Page 1, line 16, after "after" insert "reporting or"

Page 1, line 19, remove "a licensed"

Page 1, replace lines 20 and 21 with "the student provides to the student's coach or athletic trainer written authorization from a licensed health care provider; and"

Page 1, line 22, after "coach" insert "or official"

Page 1, line 22, replace "to educate the coach about" with "regarding"

Page 2, line 1, remove "district"

Page 2, line 7, remove "district"

Page 2, line 8, remove "district"

Page 2, line 13, replace "and" with an underscored period

Page 2, replace lines 14 and 15 with:

"**SECTION 2.** A new section to chapter 23-12 of the North Dakota Century Code is created and enacted as follows:

Athletic activities - Children - Concussion management program - Requirements.

- 203
1. Each person sponsoring or sanctioning an athletic activity that requires a child under the age of eighteen to pay a fee in order to regularly practice or train and compete is subject to the terms of a concussion management program.
 2. The concussion management program must:
 - a. Define the signs and symptoms of a concussion;
 - b. Provide that a coach, athletic trainer, or official shall remove a student from practice, training, or competition if:
 - (1) That child reports any defined sign or symptom of a concussion;
 - (2) The coach, athletic trainer, or official determines that the child exhibits any defined sign or symptom of a concussion;
 - (3) If the coach or official is notified that the child has reported or exhibited any listed sign or symptom of a concussion by:
 - (a) A licensed, registered, or certified medical practitioner operating within the individual's scope of practice; or
 - (b) Any other licensed, registered, or certified individual whose scope of practice includes the recognition of concussion symptoms;
 - c. Require that any child who is removed in accordance with this subsection must be examined by a licensed health care provider as soon as practicable after reporting or exhibiting any listed sign or symptom of a concussion;
 - d. Provide that any child who is removed in accordance with this subsection may be allowed to return to practice, training, or competition only after the child provides to the child's coach or athletic trainer written authorization from a licensed health care provider; and
 - e. Require that each coach receive biennial training to educate the coach about the nature and risk of concussion, including the risk of play after a concussion or head injury.
 3. The sponsoring body of the activity shall ensure that before a child is allowed to participate, the child and the child's parent or guardian shall document that they have viewed information, made available in written or verifiable electronic form by the activity's sponsoring body, regarding concussions incurred by children participating in athletic activities.
 4. This section does not create any liability for, or create a cause of action against, the sponsoring body of an activity.
 5. To carry out its duties under this section, the sponsoring body of an activity may contract for and accept private contributions, gifts, and grants, or in-kind aid from the federal government, the state, or any source.
 6. For the purpose of this section, "licensed health care provider" means an individual who is registered, licensed, certified, or otherwise statutorily

recognized in this state to provide health care services or treatment within the individual's scope of practice.

7. This section does not apply to schools that are governed by section 1 of this Act or to any other political subdivision."

Renumber accordingly

Date: 03-29-11
Roll Call Vote #: VOICE VOTE

2011 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2281

House EDUCATION Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken: ☐ Do Pass ☐ Do Not Pass ☐ Amended ☒ Adopt
Amendment

☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By REP. ROHR Seconded By REP. KARLS

Representatives	Yes	No	Representatives	Yes	No
Chairman Kelsch			Rep. Hanson		
Vice Chairman Meier			Rep. Hunsakor		
Rep. Heilman			Rep. Mock		
Rep. Heller			Rep. Mueller		
Rep. Johnson					
Rep. Karls					
Rep. Rohr					
Rep. Rust					
Rep. Sanford					
Rep. Schatz					
Rep. Wall					

Total (Yes) _____ No _____

Absent _____

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

VOICE VOTE: MOTION CARRIES

Date: 03-29-11
Roll Call Vote #: _____

2011 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2281 engrossed

House EDUCATION

Committee _____

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken: ☒ Do Pass ☐ Do Not Pass ☒ Amended ☐ Adopt
Amendment

☐ Rerefer to Appropriations ☐ Reconsider

Motion Made By REP. ROHR Seconded By REP. HEILMAN

Representatives	Yes	No	Representatives	Yes	No
Chairman Kelsch	X		Rep. Hanson	X	
Vice Chairman Meier	X		Rep. Hunsakor	X	
Rep. Heilman	X		Rep. Mock	X	
Rep. Heller		X	Rep. Mueller	X	
Rep. Johnson					
Rep. Karls	X				
Rep. Rohr	X				
Rep. Rust		X			
Rep. Sanford	X				
Rep. Schatz		X			
Rep. Wall	X				

Total (Yes) 11 No 3

Absent 1 - REP. JOHNSON

Floor Assignment REP. ROHR

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

SB 2281, as engrossed: Education Committee (Rep. R. Kelsch, Chairman) recommends AMENDMENTS AS FOLLOWS and when so amended, recommends **DO PASS** (11 YEAS, 3 NAYS, 1 ABSENT AND NOT VOTING). Engrossed SB 2281 was placed on the Sixth order on the calendar.

Page 1, line 1, after "15.1-18.2" insert "and a new section to chapter 23-12"

Page 1, line 7, remove "district"

Page 1, line 8, remove the first underscored comma

Page 1, line 13, remove "that student exhibits or reports any sign or symptom of"

Page 1, replace line 14 with ":

- (1) That student reports any defined sign or symptom of a concussion;
- (2) The coach, athletic trainer, or official determines that the student exhibits any defined sign or symptom of a concussion;
- (3) If the coach or official is notified that the student has reported or exhibited any defined sign or symptom of a concussion by:
 - (a) A licensed, registered, or certified medical practitioner operating within the individual's scope of practice; or
 - (b) Any other licensed, registered, or certified individual whose scope of practice includes the recognition of concussion symptoms."

Page 1, line 16, after "after" insert "reporting or"

Page 1, line 19, remove "a licensed"

Page 1, replace lines 20 and 21 with "the student provides to the student's coach or athletic trainer written authorization from a licensed health care provider; and"

Page 1, line 22, after "coach" insert "or official"

Page 1, line 22, replace "to educate the coach about" with "regarding"

Page 2, line 1, remove "district"

Page 2, line 7, remove "district"

Page 2, line 8, remove "district"

Page 2, line 13, replace "and" with an underscored period

Page 2, replace lines 14 and 15 with:

"SECTION 2. A new section to chapter 23-12 of the North Dakota Century Code is created and enacted as follows:

Athletic activities - Children - Concussion management program - Requirements.

1. Each person sponsoring or sanctioning an athletic activity that requires a child under the age of eighteen to pay a fee in order to regularly practice

or train and compete is subject to the terms of a concussion management program.

2. The concussion management program must:
 - a. Define the signs and symptoms of a concussion:
 - b. Provide that a coach, athletic trainer, or official shall remove a student from practice, training, or competition if:
 - (1) That child reports any defined sign or symptom of a concussion;
 - (2) The coach, athletic trainer, or official determines that the child exhibits any defined sign or symptom of a concussion;
 - (3) If the coach or official is notified that the child has reported or exhibited any listed sign or symptom of a concussion by:
 - (a) A licensed, registered, or certified medical practitioner operating within the individual's scope of practice; or
 - (b) Any other licensed, registered, or certified individual whose scope of practice includes the recognition of concussion symptoms;
 - c. Require that any child who is removed in accordance with this subsection must be examined by a licensed health care provider as soon as practicable after reporting or exhibiting any listed sign or symptom of a concussion;
 - d. Provide that any child who is removed in accordance with this subsection may be allowed to return to practice, training, or competition only after the child provides to the child's coach or athletic trainer written authorization from a licensed health care provider; and
 - e. Require that each coach receive biennial training to educate the coach about the nature and risk of concussion, including the risk of play after a concussion or head injury.
3. The sponsoring body of the activity shall ensure that before a child is allowed to participate, the child and the child's parent or guardian shall document that they have viewed information, made available in written or verifiable electronic form by the activity's sponsoring body, regarding concussions incurred by children participating in athletic activities.
4. This section does not create any liability for, or create a cause of action against, the sponsoring body of an activity.
5. To carry out its duties under this section, the sponsoring body of an activity may contract for and accept private contributions, gifts, and grants, or in-kind aid from the federal government, the state, or any source.
6. For the purpose of this section, "licensed health care provider" means an individual who is registered, licensed, certified, or otherwise statutorily recognized in this state to provide health care services or treatment within the individual's scope of practice.

7. This section does not apply to schools that are governed by section 1 of this Act or to any other political subdivision."

Renumber accordingly

2011 SENATE EDUCATION

CONFERENCE COMMITTEE

SB 2281

2011 SENATE STANDING COMMITTEE MINUTES

Senate Education Committee
Missouri River Room, State Capitol

SB 2281, CC#1

April 13, 2011

16543

☒ Conference Committee

Committee Clerk Signature



Explanation or reason for introduction of bill/resolution:

Relating to concussion management program requirements.

Minutes:

No "attached testimony."

Chairman Flakoll called the meeting to order; **Senators Freborg & Heckaman; Representatives Wall, Rohr, & Hanson** present.

Representative Wall reviewed all of the changes in the bill that the House made. Line 2, page 3 has an age (fourth word) of 18; doesn't believe it appears anywhere else so would like to discuss later in the committee.

Chairman Flakoll: Any other House conferee comments?

Representative Hanson: page 1, line 13 should have a definition of official; does that mean a referee, a superintendent, principal—who does that mean? **Chairman Flakoll:** Has heard that question being posed.

Representative Hanson: Page 3, line 18 the Activities Association eligibility to be eligible for an athletic contest or any contest in high school is up to 20; may want to change 18 to 20. **Representative Rohr:** Three of them did discuss the changes that both Representatives Wall and Hanson have discussed. She does concur with that.

Chairman Flakoll: The change with the overstrike of "district", so are going from the publics to non-publics also included? **Representative Wall:** Correct. **Chairman Flakoll:** Does it extend past that in any way? We are limited to K-12 and nothing beyond? **Representative Wall:** Believes in their discussions it stopped at K-12. **Chairman Flakoll:** Part of his question is that some of the amendment language they've been getting is more along the lines of public or non-public schools, so wondering? **Representative Rohr:** It is for K-12, public and nonpublic.

Chairman Flakoll: The other thing we may want to look is (.02004 at marked up version) on page 1, line 13-14 about requiring any coach, athletic trainer, official to remove a student from the practice, training or competition. Is there any kind of priority there? Guessing it takes only one of them; so it is not as if the coach can block the athletic trainer from taking someone out of the game or the referee from doing so. Doesn't require two out

of the three; does anyone disagree? **Representative Rohr:** It is not identified in a priority at all; its coach, athletic trainer or official. Doesn't mean that one can negate the other.

Chairman Flakoll: That question has come up; want to be clear on it. Page 2, a couple of sections about who has specific training in the area of concussions. Wondering as far as the justification for removing that language? **Representative Wall:** Believe the committee made the change based on the fact it might not always be easy to have a licensed health care provider available that could do it, and there were other people within the realm and scope of practice who could say that a student was again eligible for practice for play, etc. Just expands the number of people that can make the decision. Probably will defer to Representative Rohr as she has the medical expertise that he lacks. **Representative Rohr:** Believes that was changed because of the confidentiality laws; the student would have to get the information to the coach or athletic director from the medical provider. **Chairman Flakoll:** As I read it now, it seems almost like if you have a licensed massage therapist they can write a note for them. **Representative Rohr:** It has to be within their scope of practice.

Chairman Flakoll: May still may be the case because they deal with people that have head and neck problems. Other question that may come up is (page 3) if a child has any of the defined symptoms of a concussion. Are we comfortable with that "any" language? Feel we all have a common mission or vision of what we want, but many students exhibit those symptoms—headache, nausea, etc., some exhibit those symptoms before competition ever starts. Other question--can a student go back into that same event as the bill is drafted. Pull out, test, and send back in? **Representative Wall:** Page 3 line 20 it appears to me it is questionable that they could be put back in. Says any child who is removed in accordance may be allowed to return to practice, training or competition only after the child provides to the child's coach or athletic trainer written authorization from a license health care provider. So it appears to him here, that no they cannot return to the game to competition.

Senator Heckaman: Question on page 2, line 7 where the student is providing the information to the coach. Think it would be more appropriate if the parent or guardian. Same on page 3, line 21; don't know it is the child's responsibility to provide that information and it may be clearer with parent or guardian in there. Did you have any discussion on that? **Representative Wall:** Believe we did not discuss that.

Senator Flakoll: Can you restate the sections again so everyone can find it on their handout. **Senator Heckaman:** It would be on page 2, line 7 and page 3, line 21. Question on Section 2 that they added in. Give an example of what kind of competitions you designed this for, and which ones would be excluded. **Representative Wall:** Believes it was designed on page 3, line 1 each person sponsoring or sanctioning an athletic activity that requires a child under the age of 18 to pay a fee, etc. Think the key here was to pay a fee; so a lot of park board activities would be exempt. **Senator Heckaman:** Summer swimming activities where the child takes lessons; this would have to be followed in the pool? **Representative Wall:** Believe they would because they would be paying a fee for swimming lessons.

Chairman Flakoll: Similar question to that because he wants to know what it does and doesn't pertain to. How about golf or golf practice? Pay a fee to golf; pay a fee to a pro for training or lessons. **Representative Rohr:** it would include golf and swimming competition.

Senator Heckaman: Would that include like a golf course? If a child goes out to a golf course and took lessons from the pro, would the golf course have to follow it?

Representative Rohr: Just for K-12 sanctioned sports, so no. **Senator Heckaman:** Does it say it in Section 2 then? **Representative Rohr:** what line specifically? **Senator Heckaman:** No specific line; don't see in Section 2—very general. It says each person sponsoring so if the golf course has a morning activity on Tuesday and the golf pro gives lessons to children, does the golf club have to follow this? Don't see in Section 2 that it says school. Because it is in Section 2, does that relate back to Section 1?

Representative Rohr: Yes, believe it does. **Chairman Flakoll:** Would also ask in the context of page 4, lines 9 & 10 there is that exclusion about referencing back.

Senator Freborg: On page 3, line 2--does a fee always have to apply? Aren't there activities that have nothing to do with a fee? What about in PE they are playing softball? That is a required class; does that have anything to do with this? **Representative Hanson:** Revert back to page 1, line 8, thinks that each school that sponsors or sanctions probably relates to the same thing. American Legion that has baseball and don't charge, have to follow rules of concussion management.

Senator Freborg: Why do we need the word "fee" in there? **Representative Wall:** We were trying to build in some exclusion is why the word is in there. Park board—t-ball, soccer, etc. Not sure that it shouldn't be there—good point. Physical education (page 1, line 8) each school that sponsors or sanctions any athletic activity. Think it would exclude Phy Ed in this bill, but it perhaps should be. **Chairman Flakoll:** Think we talked earlier that it would be those sanctioned by the NDHSAA but probably to include rodeo, which isn't sanctioned by them.

Representative Hanson: Thinks it goes all the way down to elementary; if you have 5th grade basketball practice, you have to have someone there that can identify a brain injury which probably would include the test that is sponsored by the Activities Association, being that this whole thing is K-12.

Chairman Flakoll: There were two questions brought up that he would like opinions on. We may further amend this bill. Should we work to more clearly define what an official means? Not sure that Legislative Council agrees or disagrees, but we could put the person officiating the event, game, whatever. Think that is our intent—does anyone disagree?

Representative Wall: One thing that was brought up—it could be an administrator that happens to be at the event. May have to further expand it.

Chairman Flakoll: Anyone want to expand the age of 18? Do we want to cover every 19 year old that has graduated from high school?

Representative Hanson: Eligible up to 20 years old in the NDHSAA, then you are out.

Chairman Flakoll: But does this limit it to those who haven't graduated from high school? Not sure I see that in here. Could have someone that is 19 years old engaged in something else. Should we define it for only those who have not completed high school?

Representative Hanson: Up to 18--some people don't graduate by 18 so they would still be eligible. Think that is why the NDHSAA has it up to 20 years old so that if someone fails a grade and is 19 when graduating, you would still be eligible for high school sports.

Chairman Flakoll: Don't have a problem with that part of it; have a problem with what if you have graduated—are you still under these constraints? May need Legislative Council to go through that for us; don't want to have a 19 year old high school graduate abiding by it. **Representative Hanson:** North Dakota High School Activity Association limits it to 8 semesters of high school.

Chairman Flakoll: Is this just limited to those under the NDHSAA? (No) That is where the question comes in.

Representative Wall: Other items to clarify; in two places where the students provide information to the coach—maybe have parents. Section 2 child provides should be parent or guardian maybe.

Chairman Flakoll: Just an aside; seems interesting to him how certain HIPA rules don't seem to apply to sports. Meeting adjourned.

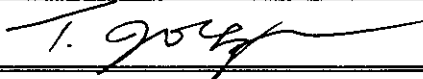
2011 SENATE STANDING COMMITTEE MINUTES

Senate Education Committee
Missouri River Room, State Capitol

SB 2281, CC#2
April 14, 2011
16587

☒ Conference Committee

Committee Clerk Signature



Explanation or reason for introduction of bill/resolution:

Relating to concussion management program requirements.

Minutes:

No "attached testimony."

Chairman Flakoll called the meeting to order; **Senators Freborg & Heckaman; Representatives Wall, Rohr, & Hanson** present. (Meeting held in Senator Conference room so recording is not as clear)

Senator Flakoll: Let's look at Section 2; think some of the Senators had some comments.

Senator Heckman: Section 2—the more she reads through it, the more exemptions or entities could be under this. Think it could be more problem trying to enforce it—what happens, who enforces it. Page 3, line 24, Section 2.e. says that each coach will receive biennial training. Who is going to enforce and handle that? Really see a lot of problems with that section. Did visit with Legislative Council this morning and some others in the room to see if there is a way to work on it. Understand why it is there; to talk about the traveling teams, etc. Unless it is specifically stated that is who it applies to, there are a lot of teams that do competition, lot of teams that go and do activities. Individuals are hired by families to do specific training with children—are they involved in this? See a lot of difficulty with Section 2 all the way around.

Senator Freborg: Move to take Section 2 out; second by **Senator Heckaman**. Think for never having rules and regulations on concussions, we've gone a long ways—maybe too far, and maybe should remove that section and see what happens for a couple of years.

Representative Wall: If we remove Section 2, there was discussion on a study—can we mandate a study of this issue. If so, would be open to removal if we can put in a study.

Senator Flakoll: We can mandate a study as long as it passes both chambers. We can use "shall consider" or "shall". **Senator Heckaman:** Let's remove the study first and then look at other options to do with it. May have some other amendments for Section 1.

Maybe when we look at those we can talk about putting the study in—after we get rid of Section 2. **Senator Flakoll:** Senator Heckaman do you have any resistance to a study?

Senator Heckaman: No, think it would be very acceptable to have a study to look at this issue. Maybe that would help us get our arms around this big issue of who, what, where, when, why and how. When we talk about school programs, that is pretty cut and dried—we can manage that. Don't think that will get resistance; the NDHSAA came in support of the bill. Maybe the study will find some areas we are missing out.

Representative Hanson: Question on the motion? Motion to remove Section 2 carried (6-0-0 Vote 1)

Senator Heckaman: Would like to address the issues from yesterday: line 8 to take District out of there or not, whether to put public and non-public schools, definition on line 13 of an official, also line 7 take student out of there to provide information. Visited with Legislative Council this morning and there was some legal opinions on the bill and what should be in and out.

Senator Flakoll: Think there is a general sentiment that where it says school now, that it would be language more specific to public schools and non-public schools. Would be looking at some type of language suggested for officials would be game officials so it doesn't imply that it is a school official like a superintendent or principal. Would also support page 1 line 13 that we would insert after the word "remove" to overstrike "a" and insert the word "their student" so you can't remove a student from the other team.

Page 1, line 19 add "athletic trainer"; page 1 remove lines 21-24 and have line 20 read "any defined sign or symptom of a concussion by a licensed health care provider".

Page 2, line 7 consideration of "the student, parent or guardian"; whole bunch of official and school district language that would be copied. Remove the overstrikes on lines 24-25-26.

Representative Wall: Concerned with the language we are going to put in to ensure a study to replace Section 2. **Senator Flakoll:** He was just referencing Section 1 from earlier discussion. Seeing if anyone has opposition or additions to that. Technical correction on page 1 lines 1-2; legislative council question.

Representative Rohr: Are we going to add public and non-public? **Senator Flakoll:** Will clean that language up; had it a couple of different ways this session. Need to be more specific as far as publics and non-publics.

Representative Wall: Page 2, line 9 for consistency need to add "coach, athletic trainer, or game official". **Senator Flakoll:** There are a few of those and the school district stuff on page 2, line 12-15-18-19, etc. Have to pick up all of those. Any opposition to having a study? **Senator Heckaman:** Need the study; would there be support if it is mandated? Don't want to lose the bill because of a mandated study, but do support that. House? **Representative Rohr:** Agree with that; support the study. **Senator Flakoll:** Do we want to put "shall" study? **Senator Freborg:** They don't like it but if we are going to be sure it is done, we have to; "shall consider" doesn't mean much. **Senator Flakoll:** Don't think there is that much in the interim related to the committee that would work on this bill—human services or education.

Representative Wall: Unless he is reading it wrong, think the feeling here is that Section 2 is needed—it is important, we need to expand it to cover more children. The problem is that it is confusing now, there are problems and it needs to be cleaned up—needs to be done in a study. Don't see resistance to that in the House. Do think there may be resistance with these questions looming out there that we can't answer.

Anita Thomas feels she has enough information to get amendments together.

Representative Hanson: Can we go back to "official" again? We are putting in "game official"? **Senator Flakoll:** The intent is that an official that is like a referee at the game, not a school official. Anita, what is the language that we'd use. **Anita Thomas:** You could consider defining "official" as perhaps an umpire, referee, judge, or any other individual officiating at an athletic event. **Representative Hanson:** Do we want to bring those people in—the referee? We talked about the blood thing; that is different as you can see the blood. Can a referee identify a brain injury? **Senator Flakoll:** Would say as well as any other people noted; think it is just a safety valve—how he views it. In the event the coaches isn't willing, if some of them would be trained. If you have a medical professional who tells the official that a student has problems and needs to come out—but the coach refuses to, the official could then do that.

Senator Heckaman: Would see the referee is an important person in that; they may see things where the coach missed a certain situation or instance. Without putting liability onto those people—not saying they have to be experts in the field, but if you see something because the coach cannot see everything, every kid, every time. This gives another set of eyes.

Senator Flakoll: Might be particularly true in smaller communities where you have one coach, but have three or four officiating the game.

Adjourn the meeting; we'll have Anita come with the amendments for next meeting.

2011 SENATE STANDING COMMITTEE MINUTES

Senate Education Committee
Missouri River Room, State Capitol

SB 2281 CC #3
April 15, 2011
16636

☒ Conference Committee

Committee Clerk Signature



Minutes:

See attached amendment

Chairman Flakoll called the meeting to order; **Senators Luick & Heckaman; Representatives Wall, Rohr, & Hanson** present. Senator Luick has replaced Senator Freborg as he has extensive flooding in his basement.

Senator Flakoll presented amendment 11.0620.02007 (#1 Attachment); have you had time to review them?

Representative Hanson: Page 1, b & c it lists officials, coach, athletic trainers—was wondering if we shouldn't have athletic trainer listed in #6. **Representative Rohr:** Thinks that was accidentally missed or was there a reason to not include it? **Anita Thomas:** It wasn't in the earlier version there, and they didn't have any firsthand knowledge as to the requirements for athletic trainers. Whether or not they already had this type of training.

Representative Hanson: The bi-annual part might be important there; if the coaches and officials have to take it every two years it would eliminate the bi-annual part for the athletic trainer. **Senator Flakoll:** Are you on a specific section? **Representative Hanson:** Section 6. Move to place athletic trainer in Section 6; second by **Senator Luick**. Remove "and" with a comma and "coach, and athletic trainer". Motion carried 6-0-0 (Vote 1).

Representative Wall: Page 2, Section 2, line 3—wondering where it says the legislative management shall study concussion management with respect to student athletics . . . Wondering if in front of "student athletics" we need "non-school related student athletics" or something to separate it. Section 1 takes care of the school athletics and seems we are trying to define and work on things that happen outside the spectrum of school. Wondering if we need to further define student athletics here as not related to school activities and school athletics. **Anita Thomas:** One suggestion would be to reference "youth athletics" rather than student athletics. **Representative Wall:** This probably broadens it even further—do we need athletics or is this about activities also? Do we need to define that or is athletics what we plan to stay with throughout Sections 1 & 2? **Anita Thomas:** The more you narrow down the study directive, the less flexibility an interim committee has to pursue those issues that might be associated with it. Double edged sword!

Representative Rohr: Just comparing the language from the previous amendment to see if there was a little better clarification between Section 1 & 2. Give me a few minutes. The

only difference between the two was the age requirement (.02004 and .02007). So when Anita says "youth activities" would we have to put a requirement in for age? **Senator Flakoll:** Thinks that would give the interim committee that flexibility if move forward a bill what language would it have for 16 year olds? 18? 20? Thinks that would give it the flexibility to allow them to define if we are going with "youth activities". **Representative Rohr:** Guess the language that we use or the groups—Junior Olympics, traveling teams, etc. That would be understood under that management study section then? **Senator Flakoll:** Correct; you get a fair amount of latitude with it in interim work. And the tighter we narrow the scope; the few things get looked at. If we just say "youth" we should be okay.

Representative Rohr: Thank you for cluing me in, as a freshman Senator, to what goes on with interim committee studies.

Representative Wall: Is this a time for a motion to replace "student athletics" with "youth activities"? **Senator Heckaman:** Just thought we were going to replace the word student with youth. Don't think we should change athletics to activities, maybe. **Representative Wall:** That is fine with him also. **Senator Flakoll:** He is a little worried from an activities standpoint; had kids here yesterday from Washington Elementary that were on a school activity. Think this is more; would be more comfortable if confined scope to athletics because not an easy issue. Want to help guide them; biggest problem happens. **Senator Luick:** Thoughts are around that idea also; student involved with drama and they have a fall or something. We are looking more at the athletics here. **Senator Flakoll:** Heard of incidents where student have done things in other areas and been injured.

Representative Rohr: In the .02004 version Section 1 & 2 it is referred to "athletic activity". Need to clarify. **Senator Flakoll:** Would consider them co-equals—student athletics and student athletic activities.

Representative Wall: Move to amend Section 2 to replace "student" with "youth"; second by **Senator Heckaman**. Motion carried 6-0-0 (Vote 3)

Senator Heckaman: Move to adopt amendments 11.0620.02007 to Engrossed HB 2281; motion withdrawn.

Anita Thomas: What about EMT's? **Senator Flakoll:** Just had a question about EMT's and if they would be able to identify (within their scope of practice) and be engaged in this. Did send this over to Representative Porter (bill sponsor) who has some expertise in this area. Do you want to have time to check; is the intent that EMT's could participate in this?

Representative Wall: Wouldn't they fall under those individuals in the scope of practice?

Representative Hanson: Representative Kramer is an EMT and he thought it would be alright to have it listed in Section 6; they are trained to recognize brain injuries.

Representative Rohr: Not aware that they actually have to define a scope of practice as a healthcare provider. It does in the definition that is provided. **Senator Flakoll:** Let's fix it now before it gets to the floor; in the spirit of not making a mistake we don't intend to make-

Representative Hanson: Do we have a motion? **Senator Flakoll:** No; this is an important issue and we are all trying to do the right thing. Will adjourn for now.

2011 SENATE STANDING COMMITTEE MINUTES

Senate Education Committee
Missouri River Room, State Capitol

SB 2281 CC #4
April 16, 2011
16684

☐ Conference Committee

Committee Clerk Signature



Minutes:

See attachments

Chairman Flakoll called the meeting to order; **Senators Luick & Heckaman; Representatives Wall, Rohr, & Kelsh** present.

Senator Flakoll: Amendment 11.0620.02008 version (#2 Attachment); Representative Kelsh is replacing Representative Hanson for the day since it is a Saturday. Did everyone get it looked over and we're ready to move on?

Representative Rohr: Want your opinion on Representative Porter's e-mail (#3 Attached e-mail and EMT scope of practice) **Senator Flakoll:** There was one that his thoughts are for the EMT's in the .02007 version. It seemed that he felt they could; under their normal conditions provide that service to school districts and non-public schools—that is his opinion of the e-mail. **Representative Rohr:** Would like to go back to the .02007 version.

Senator Flakoll: Want to make sure that everyone has a copy. Also a transmission that went out from Mr. Jack McDonald—not sure who received that. Had some concerns about .02007. We'll have him come to the microphone and explain.

Jack McDonald, Lobbyist for North Dakota Board of Physical Therapy and North Dakota Physical Therapy Association: Concerns about the definitions in .02007; it appears that it made the health care providers, in all instances, have to be someone whose scope of practice included the treatment of concussions. The athletic trainers, physical therapists, people who are likely to be on the field and recognizing these—while their scope of practice includes the recognition and evaluation of concussions, it no way includes the treatment of concussions. In fact, very few physicians actually treat concussions. A dermatologist for instance would not be qualified to do this. Did see the .02008 version just briefly; it appears that is a better way to handle it because it breaks the health care provider into two different categories. One health care provider who recognizes on the field or court and says this person should not compete—evaluation and recognition. To get back on the field you have to be certified by someone who actually treats and deals with concussions. That would be the doctor that specializes in that area. Thinks the .02008 definition solves the problems; allow the EMT's, PT's and athletic trainers to remove from the competition and the specialist to get back into competition.

Senator Flakoll: Also have a health care representative here and maybe will call him up to give his thoughts on .2007 versus .2008 which one he believes would be supported by their organizations to the highest degree.

Joel Gilbertson, Sanford Health, Health Policy Consortium (HPC-organization of four hospitals in the state: Trinity in Minot, Altru in Grand Forks, Sanford in Fargo, MedCenter One in Bismarck) Would say that Jack said it very well; we feel the same way—the .02008 is a better way of analyzing how and when they come out, and how they get to go back in.

Representative Wall: Move that the House recede from the House amendments and amend with 11.0620.02008; second by Senator Luick.

Representative Kelsh: On the back page of .2008, Section 8—does he understand this does not create a liability; does it give a school district immunity for anything that happens, or does this just mean that it is not implied that if they don't have done all this that they are not liable. What is the implication of Section 8? **Senator Flakoll:** Believe that it does not create any additional liability by doing this. Certainly they are required to do this, and if they are negligent in that they could have some problems by not having a program in place.

Motion carried 6-0-0 (Vote 4)

Senator Flakoll: Had some closing comments regarding the bill. **Representative Rohr:** Wants the minutes to reflect that both entities—hospital associations comments about .2008. Did get Jack McDonald's e-mail but want it in the record that it was supported by both entities. **Senator Flakoll:** Again it is a "shall study"; think everyone that wish we could have that other section in there too, but recognize that it wasn't quite ready. This is somewhat template language and would be passed around to other states for use. Good work for those that worked on it.

Adjourn conference committee.

2011 SENATE CONFERENCE COMMITTEE ROLL CALL VOTES

Committee: Senate Education

Bill/Resolution No. 2281 as (re) engrossed

Date: 4-14-11

Roll Call Vote #: 1

Action Taken

- ☐ SENATE accede to House amendments
☐ SENATE accede to House amendments and further amend
☐ HOUSE recede from House amendments
☐ HOUSE recede from House amendments and amend as follows

Senate/House Amendments on SJ/HJ page(s) 1053 - 1054

- ☐ Unable to agree, recommends that the committee be discharged and a new committee be appointed

((Re) Engrossed) SB 2281 was placed on the Seventh order of business on the calendar

Motion Made by: Sen. Freborg Seconded by: Sen. Heckaman

Luick #3 →

Senators	<u>4</u> 13	<u>4</u> 14	<u>4</u> 15	Yes	No		Representatives	<u>4</u> 13	<u>4</u> 14	<u>4</u> 15	Yes	No
Tim Flakoll	✓	✓	✓	✓			John Wall	✓	✓	✓	✓	
Layton Freborg	✓	✓	✓	✓			Karen Rohr	✓	✓	✓	✓	
Joan Heckaman	✓	✓	✓	✓			Kyle Hanson	✓	✓	✓	✓	

Vote Count: Yes 6 No 0 Absent 0

Senate Carrier _____ House Carrier _____

LC Number voice amend. of amendment

LC Number _____ of engrossment

Emergency clause added or deleted

Statement of purpose of amendment

remove sect. 2 of bill

April 14, 2011

PROPOSED AMENDMENTS TO ENGROSSED SENATE BILL NO. 2281

Page 1, line 1, after "A BILL" replace the remainder of the bill with "for an Act to create and enact a new section to chapter 15.1-18.2 of the North Dakota Century Code, relating to concussion management program requirements; and to provide for a legislative management study.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. A new section to chapter 15.1-18.2 of the North Dakota Century Code is created and enacted as follows:

Student athletics - Concussion management program - Requirements.

1. Each school district and nonpublic school that sponsors or sanctions any athletic activity in this state and requires a participating student to regularly practice or train, and compete, is subject to the terms of a concussion management program.
2. The concussion management program must set forth in clear and readily comprehensible language the signs and symptoms of a concussion.
3. The concussion management program must require that an official remove a student from competition and that a student's coach or a student's athletic trainer remove the student from practice, training, or competition if:
 - a. The student reports any sign or symptom of a concussion, as set forth in accordance with this section;
 - b. The official, coach, or athletic trainer determines that the student exhibits any sign or symptom of a concussion, as set forth in accordance with this section; or
 - c. The official, coach, or athletic trainer is notified that the student has reported or exhibited any sign or symptom of a concussion by a health care provider.
4. The concussion management program must require that any student who is removed in accordance with subsection 3 must be examined as soon as practicable by a health care provider.
5. A student who is removed in accordance with subsection 3 may not be allowed to return to practice, training, or competition until the student or the student's parent obtains written authorization from a health care provider and provides that authorization to the student's coach or athletic trainer.
6. The concussion management program must require that each official and coach receive biennial training regarding the nature and risk of concussion.

7. The student's school district or nonpublic school shall ensure that before a student is allowed to participate in the athletic activity described in subsection 1, the student and the student's parent shall document that they have viewed information regarding concussions incurred by students participating in athletic activities. The required information must be provided by the student's school district or nonpublic school and must be made available in printed form or in a verifiable electronic format.
8. This section does not create any liability for, or create a cause of action against:
 - a. A school district, its officers, or its employees; or
 - b. A nonpublic school, its officers, or its employees.
9. A school district or a nonpublic school may contract for and accept gifts, grants, and donations from any public or nonpublic source, in order to meet the requirements of this section.
10. For the purposes of this section:
 - a. "Health care provider" means an individual who is licensed, registered, certified, or otherwise statutorily recognized as being able to provide health care services in this state, within the individual's scope of practice, and whose scope of practice includes the evaluation, management, and treatment of concussions.
 - b. "Official" means an umpire, a referee, a judge, or any other individual formally officiating at an athletic event.

SECTION 2. CONCUSSION MANAGEMENT PROGRAMS - LEGISLATIVE MANAGEMENT STUDY. During the 2011-12 biennium, the legislative management shall study concussion management with respect to student athletics, including the nature, scope, and applicability of programs designed to prevent or eliminate concussions. The legislative management shall report its findings and recommendations, together with any legislation required to implement the recommendations, to the sixty-third legislative assembly."

Renumber accordingly

2011 SENATE CONFERENCE COMMITTEE ROLL CALL VOTES

Committee: Senate Education

Bill/Resolution No. 2281 as (re) engrossed

Date: 4-15-11

Roll Call Vote #: 2

Action Taken

- ☐ SENATE accede to House amendments
☐ SENATE accede to House amendments and further amend
☐ HOUSE recede from House amendments
☐ HOUSE recede from House amendments and amend as follows

☒ Senate House Amendments on (SJ/HJ) page(s) 1053 - 1054

☐ Unable to agree, recommends that the committee be discharged and a new committee be appointed

((Re) Engrossed) SB 2281 was placed on the Seventh order of business on the calendar

Motion Made by: Rep. Hanson Seconded by: Sen. Luick

Senators		$\frac{4}{15}$	Yes	No		Representatives		$\frac{4}{15}$	Yes	No
T. Flakoll		✓	✓			J. Wall		✓	✓	
L. Luick		✓	✓			K. Rohr		✓	✓	
J. Heckaman		✓	✓			L. Hanson		✓	✓	

Vote Count: Yes 6 No 0 Absent 0

Senate Carrier _____ House Carrier _____

LC Number 11.0620 . 02007 of amendment

LC Number _____ of engrossment

Emergency clause added or deleted

Statement of purpose of amendment

#6 add Athletic Trainer to amendment.

2011 SENATE CONFERENCE COMMITTEE ROLL CALL VOTES

Committee: Senate Education

Bill/Resolution No. 2281 as (re) engrossed

Date: 4-15-11

Roll Call Vote #: 3

Action Taken

- ☐ SENATE accede to House amendments
☐ SENATE accede to House amendments and further amend
☐ HOUSE recede from House amendments
☐ HOUSE recede from House amendments and amend as follows

Senate/House Amendments on SJ/HJ page(s) --

- ☐ Unable to agree, recommends that the committee be discharged and a new committee be appointed

((Re) Engrossed) _____ was placed on the Seventh order of business on the calendar

Motion Made by: Rep. Wall Seconded by: Sen Heckaman

Senators				Yes	No		Representatives				Yes	No
T. Flakoll				✓			J. Wall				✓	
L. Luick				✓			K. Rohr				✓	
J. Heckaman				✓			L. Hanson				✓	

Vote Count: Yes 6 No 0 Absent 0

Senate Carrier _____ House Carrier _____

LC Number 11.0620 . 02007 of amendment

LC Number _____ of engrossment

Emergency clause added or deleted

Statement of purpose of amendment (add to amendment)
Section 2 change "student" to "Youth"

April 15, 2011

PROPOSED AMENDMENTS TO ENGROSSED SENATE BILL NO. 2281

That the House recede from its amendments as printed on pages 1053 and 1054 of the Senate Journal and pages 1215-1217 of the House Journal and that Engrossed Senate Bill No. 2281 be amended as follows:

Page 1, line 1, after "A BILL" replace the remainder of the bill with "for an Act to create and enact a new section to chapter 15.1-18.2 of the North Dakota Century Code, relating to concussion management program requirements; and to provide for a legislative management study.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. A new section to chapter 15.1-18.2 of the North Dakota Century Code is created and enacted as follows:

Student athletics - Concussion management program - Requirements.

1. Each school district and nonpublic school that sponsors or sanctions any athletic activity in this state and requires a participating student to regularly practice or train, and compete, is subject to the terms of a concussion management program.
2. The concussion management program must set forth in clear and readily comprehensible language the signs and symptoms of a concussion.
3. The concussion management program must require that an official remove a student from competition and that a student's coach or a student's athletic trainer remove the student from practice, training, or competition if:
 - a. The student reports any sign or symptom of a concussion, as set forth in accordance with this section;
 - b. The official, coach, or athletic trainer determines that the student exhibits any sign or symptom of a concussion, as set forth in accordance with this section; or
 - c. The official, coach, or athletic trainer is notified that the student has reported or exhibited any sign or symptom of a concussion by a licensed, registered, or certified health care provider whose scope of practice includes the recognition of concussion signs and symptoms.
4. The concussion management program must require that any student who is removed in accordance with subsection 3 must be examined as soon as practicable by a licensed, registered, or certified health care provider whose scope of practice includes the diagnosis and treatment of concussion.
5. A student who is removed in accordance with subsection 3 may not be allowed to return to practice, training, or competition until the student or the

student's parent obtains written authorization from a licensed, registered, or certified health care provider whose scope of practice includes the diagnosis and treatment of concussion and provides that authorization to the student's coach or athletic trainer.

6. The concussion management program must require that each official, coach, and athletic trainer receive biennial training regarding the nature and risk of concussion.
7. The student's school district or nonpublic school shall ensure that before a student is allowed to participate in the athletic activity described in subsection 1, the student and the student's parent shall document that they have viewed information regarding concussions incurred by students participating in athletic activities. The required information must be provided by the student's school district or nonpublic school and must be made available in printed form or in a verifiable electronic format.
8. This section does not create any liability for, or create a cause of action against:
 - a. A school district, its officers, or its employees; or
 - b. A nonpublic school, its officers, or its employees.
9. A school district or a nonpublic school may contract for and accept gifts, grants, and donations from any public or nonpublic source, in order to meet the requirements of this section.
10. For the purposes of this section, "official" means an umpire, a referee, a judge, or any other individual formally officiating at an athletic event.

SECTION 2. CONCUSSION MANAGEMENT PROGRAMS - LEGISLATIVE MANAGEMENT STUDY. During the 2011-12 biennium, the legislative management shall study concussion management with respect to youth athletics, including the nature, scope, and applicability of programs designed to prevent or eliminate concussions. The legislative management shall report its findings and recommendations, together with any legislation required to implement the recommendations, to the sixty-third legislative assembly."

Renumber accordingly

#2

2011 SENATE CONFERENCE COMMITTEE ROLL CALL VOTES

Committee: Senate Education

Bill/Resolution No. 2281 as (re) engrossed

Date: 4-16-11

Roll Call Vote #: 4

Action Taken

- ☐ SENATE accede to House amendments
☐ SENATE accede to House amendments and further amend
☐ HOUSE recede from House amendments
☒ HOUSE recede from House amendments and amend as follows

Senate/House Amendments on SJ/HJ page(s) 1053 - 1054

☐ Unable to agree, recommends that the committee be discharged and a new committee be appointed

((Re) Engrossed) 2281 was placed on the Seventh order of business on the calendar

Motion Made by: Rep. Wall Seconded by: Sen. Luick

Senators	#	Yes	No		Representatives	#	Yes	No
T. Flakoll	✓	✓			J. Wall	✓	✓	
L. Luick	✓	✓			K. Rohr	✓	✓	
J. Heckaman	✓	✓			J. Kelsh	✓	✓	

Vote Count: Yes 6 No 0 Absent 0

Senate Carrier Sen. Flakoll House Carrier Sen. Wall

LC Number 11.0620 . 02008 of amendment

LC Number _____ of engrossment

Emergency clause added or deleted

Statement of purpose of amendment

REPORT OF CONFERENCE COMMITTEE

SB 2281, as engrossed: Your conference committee (Sens. Flakoll, Luick, Heckaman and Reps. Wall, Rohr, Hanson) recommends that the **HOUSE RECEDE** from the House amendments as printed on SJ pages 1053-1054, adopt amendments as follows, and place SB 2281 on the Seventh order:

That the House recede from its amendments as printed on pages 1053 and 1054 of the Senate Journal and pages 1215-1217 of the House Journal and that Engrossed Senate Bill No. 2281 be amended as follows:

Page 1, line 1, after "A BILL" replace the remainder of the bill with "for an Act to create and enact a new section to chapter 15.1-18.2 of the North Dakota Century Code, relating to concussion management program requirements; and to provide for a legislative management study.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. A new section to chapter 15.1-18.2 of the North Dakota Century Code is created and enacted as follows:

Student athletics - Concussion management program - Requirements.

1. Each school district and nonpublic school that sponsors or sanctions any athletic activity in this state and requires a participating student to regularly practice or train, and compete, is subject to the terms of a concussion management program.
2. The concussion management program must set forth in clear and readily comprehensible language the signs and symptoms of a concussion.
3. The concussion management program must require that an official remove a student from competition and that a student's coach or a student's athletic trainer remove the student from practice, training, or competition if:
 - a. The student reports any sign or symptom of a concussion, as set forth in accordance with this section;
 - b. The official, coach, or athletic trainer determines that the student exhibits any sign or symptom of a concussion, as set forth in accordance with this section; or
 - c. The official, coach, or athletic trainer is notified that the student has reported or exhibited any sign or symptom of a concussion by a licensed, registered, or certified health care provider whose scope of practice includes the recognition of concussion signs and symptoms.
4. The concussion management program must require that any student who is removed in accordance with subsection 3 must be examined as soon as practicable by a licensed, registered, or certified health care provider whose scope of practice includes the diagnosis and treatment of concussion.
5. A student who is removed in accordance with subsection 3 may not be allowed to return to practice, training, or competition until the student or the student's parent obtains written authorization from a licensed, registered, or certified health care provider whose scope of practice includes the diagnosis and treatment of concussion and provides that authorization to the student's coach or athletic trainer.

6. The concussion management program must require that each official, coach, and athletic trainer receive biennial training regarding the nature and risk of concussion.
7. The student's school district or nonpublic school shall ensure that before a student is allowed to participate in the athletic activity described in subsection 1, the student and the student's parent shall document that they have viewed information regarding concussions incurred by students participating in athletic activities. The required information must be provided by the student's school district or nonpublic school and must be made available in printed form or in a verifiable electronic format.
8. This section does not create any liability for, or create a cause of action against:
 - a. A school district, its officers, or its employees; or
 - b. A nonpublic school, its officers, or its employees.
9. A school district or a nonpublic school may contract for and accept gifts, grants, and donations from any public or nonpublic source, in order to meet the requirements of this section.
10. For the purposes of this section, "official" means an umpire, a referee, a judge, or any other individual formally officiating at an athletic event.

SECTION 2. CONCUSSION MANAGEMENT PROGRAMS - LEGISLATIVE MANAGEMENT STUDY. During the 2011-12 biennium, the legislative management shall study concussion management with respect to youth athletics, including the nature, scope, and applicability of programs designed to prevent or eliminate concussions. The legislative management shall report its findings and recommendations, together with any legislation required to implement the recommendations, to the sixty-third legislative assembly."

Renumber accordingly

Engrossed SB 2281 was placed on the Seventh order of business on the calendar.

2011 TESTIMONY

SB 2281

PROPOSED AMENDMENTS TO SENATE BILL NO. 2281

Page 1, line 14, after "coach," insert "athletic"

Page 1, line 18, replace "physician" with "licensed health care provider"

Page 1, line 21, replace "physician" with "licensed health care provider"

Page 1, line 22, after "or" insert "athletic"

Page 1, after line 23, insert:

"e. Require that all coaches receive biennial training to educate them about the nature and risk of concussion, including continuing to play after a concussion or head injury."

Page 2, line 2, after "parent" insert "or guardian"

Page 2, line 15, after "coach," insert "athletic"

Page 2, line 19, replace "physician" with "licensed health care provider"

Page 2, line 22, replace "physician" with "licensed health care provider"

Page 2, line 23, after "or" insert "athletic"

Page 2, after line 23, insert:

"e. Require that all coaches receive biennial training to educate them about the nature and risk of concussion, including continuing to play after a concussion or head injury."

Page 2, line 25, after "parent" insert "or guardian"

Page 2, after line 27, insert:

"SECTION 3. For the purpose of this Act, a "licensed health care provider" is a person who is:

1. Registered, licensed, certified or otherwise statutorily recognized by North Dakota to provide health care services or treatment within their scope of practice, and

2. Trained and experienced in the evaluation, management and care of concussions."

Renumber accordingly

#2 SB 2281

PROPOSED AMENDMENTS TO SENATE BILL NO. 2281

Page 1, replace line 8 with "Each school district that sponsors or sanctions any athletic activity"

Page 1, line 9, remove "sponsored or sanctioned by a school or school district"

Page 1, line 14, after "coach," insert "athletic" and remove "immediately"

Page 1, line 15, after "exhibits" insert "or reports"

Page 1, line 18, replace "physician" with "licensed health care provider"

Page 1, line 21, replace "physician" with "licensed health care provider"

Page 1, line 22, after "or" insert "athletic"

Page 1, after line 23, insert:

"e. Require that all coaches receive biennial training to educate them about the nature and risk of concussion, including continuing to play after a concussion or head injury."

Page 2, line 1, replace "superintendent of public instruction" with "school district"

Page 2, line 2, after "parent" insert "or guardian"

Page 2, line 3, replace "electronically" with "in written or electronic form"

Page 2, after line 5, insert:

"4. This section does not create any liability for, or create a cause of action against a school district, its officers or employees.

5. In order to carry out its duties under this section, any school district may contract for and accept private contributions, gifts and grants-in-aid from the federal government, state government and other sources."

Page 2, remove lines 6 through 27

#1B-SB 2281
Committee Work¹

Page 2, after line 27, insert:

"SECTION 3. A new section to chapter 15.1-18.2 of the North Dakota Century Code is created and enacted as follows:

Definition. For the purpose of this Act, "licensed health care provider" means a person who is:

1. Registered, licensed, certified or otherwise statutorily recognized by North Dakota to provide health care services or treatment within their scope of practice, and
2. Trained and experienced in the evaluation, management and care of concussions."

Renumber accordingly

#16-SB 2281, Committee Work

TESTIMONY INTRODUCING SENATE BILL 2281

Senator Spencer Berry, MD District-27

Good Morning Mr. Chairman and members of the Senate Education Committee. I am Senator Spencer Berry representing District 27, and I am pleased to stand before you today to introduce Senate Bill 2281.

During this, my first session, I am excited about sponsoring and supporting needed and good public policy, as I believe Senate Bill 2281 to be. This is an issue that is very important to me both personally and professionally. I am currently a physician in Fargo, ND, and have had a wide range of experience in dealing with athletics, athletes, and concerns and issues as it relates to them including concussions, which is the focus of this legislation.

I am, and have been, a team physician. I work with all ages including youth, high school, college and adult athletes. The area of traumatic brain injury (TBI) and concussion has long been a concern and interest of mine as it deals with the prevention, recognition and management of concussive injury to our state's athletes.

Before walking through the bill, I would like to note our absolute top priorities in drafting this legislation, and hopefully crafting it to accomplish those goals:

1. Quite simply, our approach in drafting this bill begins with our North Dakota kids and ends with our North Dakota kids. As a physician, my highest priority is my patient. We have tried to take the same approach with this bill.

2. The second highest priority in the bill, I would say, is the education and awareness component. We are hoping through this bill to increase the focus on the background and causation factors in concussion, training on recognition of concussions, and information on dealing with that situation when it arises.

The key features of this bill directly address these concerns through 1) informing and educating coaches, youth athletes and the athlete's parents or guardians in the nature and risks of concussion, including continuing to play after sustaining a concussion. 2) Immediately removing a youth athlete who is suspected of sustaining a concussion in a practice, game or other training activity, and 3) allowing a youth athlete who has been removed from any athletic activity for a suspected concussion to return only after the athlete is evaluated by a licensed healthcare provider trained and experienced in the evaluation and management of concussion.

This bill helps all children and adolescents who play sports-boys and girls in all sports. This bill appropriately places focus on the health of the children. Importantly, this bill is directly in line with, and responsive to, the most recognized authoritative guidelines on concussion management. This bill is also consistent with the emerging accepted standard of care for concussion in youth sports as defined by similar laws already passed in 9 other states.

Passage of this bill will reduce the risk and incidence of severe brain injuries, as well as liability and healthcare costs related to concussion and premature return to athletic activities. The health and safety of our youth will be improved.

Medical researchers have determined that children and teenagers whose brains still are developing are more susceptible to concussions than adults, and they recover more slowly. Recognizing and responding to concussions when they first occur help to aid recovery and to prevent prolonged concussive symptoms, chronic impairment and even death.

This legislation provides better protection for North Dakota's youth athletes by mandating a more formal, aggressive and uniform approach to the treatment of concussions.

We have received broad support throughout the state from multiple stake holders and interest groups that are involved with this issue. You will hear from some of them subsequently, and you will receive general letters of support from others including, but not limited to, Dr. Michael Bergeron, the director of the National Institute for Athletic Health and Performance, a Certified Master Athletic Administrator in the Fargo Public School System, and the Commissioner of the National Football League, Roger Goodell.

If I may, I would like to take a few moments to briefly walk through Senate Bill 2281. The bill is being proposed as are several proposed amendments, which I have copies here for you of those amendments.

#2 SB 2281



**NORTH DAKOTA
MEDICAL
ASSOCIATION**

1622 East Interstate Avenue
Post Office Box 1198
Bismarck, North Dakota
58502-1198

(701) 223-9475
Fax (701) 223-9476
www.ndmed.org

Kimberly T. Krohn, MD
Minot
President

A. Michael Booth, MD
Bismarck
Vice President
Council Chair

Steven P. Strinden, MD
Fargo
Secretary-Treasurer

Debra A Geier, MD
Jamestown
Speaker of the House

Robert A. Thompson, MD
Immediate Past President

Gaylord J. Kavlie, MD
Bismarck
AMA Delegate

Robert W. Beattie, MD
Grand Forks
AMA Alternate Delegate

Bruce Levi
Executive Director and
General Counsel

Leann Benson
Director of Membership
Office Manager

Annette Weigel
Administrative Assistant

**Testimony in Support of SB 2281
Senate Education Committee
January 24, 2011**

Chairman Freborg and Committee Members, I'm Bruce Levi and I serve as executive director of the North Dakota Medical Association. The North Dakota Medical Association supports SB 2281.

Recently, both the (AMA) House of Delegates and American Academy of Neurology (AAN) adopted policy statements in support of recommendations consistent with SB 2281.

The AMA policy is straight forward (attached background article):

Our AMA: (1) promotes the adoption of requirements that athletes participating in school or other organized youth sports and who are suspected by a coach, trainer, administrator, or other individual responsible for the health and well-being of athletes of having sustained a concussion, should not return to play or practice without the written approval of an MD or DO; and (2) encourages educational efforts designed to improve the understanding of concussion by athletes, their parents, coaches, and trainers. (Res. 910, I-10)

The American Academy of Neurology recently issued a policy statement on sports concussion (attached). Members of the AAN specialize in treating disorders of the brain and nervous system. The AAN supports the implementation of policy that supports the following recommendations:

1. Any athlete who is suspected to have suffered a concussion should be removed from participation until he or she is evaluated by a physician with training in the evaluation and management of sports concussions
2. No athlete should be allowed to participate in sports if he or she is still experiencing symptoms from a concussion.
3. Following a concussion, a neurologist or physician with proper training should be consulted prior to clearing the athlete for return to participation.
4. A certified athletic trainer should be present at all sporting events, including practices, where athletes are at risk for concussion.
5. Education efforts should be maximized to improve the understanding of concussion by all athletes, parents, and coaches.

Thank you for the opportunity to present the views of the North Dakota Medical Association. NDMA urges the Committee to vote "DO PASS" on SB 2281.

#3 SB 2281

amednews.com

— American Medical News —

OPINION

Young athletes need closer watch after concussions

New AMA policy requires written physician approval before a youth suspected of such an injury can return to play or practice.

Editorial. Posted Dec. 6, 2010.

On football fields across the country, from the National Football League to high school, renewed scrutiny is being given to the impact that hits have on players -- specifically, the lasting effects of concussions.

Last year, the NFL strengthened its return-to-play rules for players and recently decided to impose fines and suspensions for dangerous hits. The league also is examining ways to improve helmets to provide players with greater safety from head injuries.

Along with the NFL, the National Collegiate Athletic Assn. prevents athletes diagnosed with concussions from returning to a game the same day. Meanwhile, the National Federation of State High School Associations calls for removing a player suspected of having a concussion until cleared by a health professional.

Lawmakers also have tried to lessen the damage from concussions, approving or considering related legislation in at least a dozen states. For example, in 2009, Washington enacted the Zackery Lystedt Law, named for a teen who had a serious head injury while playing football. In part, the law requires parents to sign an informed consent form acknowledging the risk of head injury before their child can participate in sports.

Research shows that these and other steps are needed, not only in football but also in many other sports, including hockey, boxing and baseball. A study in the July 2009 *Journal of Neuropathology & Experimental Neurology* found progressive, degenerative brain disease in retired football players, wrestlers and boxers who had sustained repeated head trauma such as concussions. The Centers for Disease Control and Prevention estimates that more than 400,000 young athletes get concussions each year. Four in 10 high school athletes with concussions return to play too soon, according to the Center for Injury Research and Policy.

The medical community has taken steps to protect against the health effects of concussions by offering guidance to physicians who deal with concussions, both on the field and in the office. In 2006, the American College of Sports Medicine published guidelines to help physicians diagnose and treat concussions in athletes. In October, the American Academy of Neurology issued a position statement that players who may have a concussion should be kept from returning to action until evaluated by a physician.

The American Medical Association is calling for more protection of young athletes from the impact of concussions. At its Interim Meeting in November, the AMA House of Delegates adopted policy that youths suspected of sustaining a concussion need written approval by a physician before they can return to play or practice.

The AMA will promote adoption of this requirement for school and other organized youth sports. The Association also will encourage educational efforts to improve understanding of concussions among coaches, trainers, athletes and parents.

Delegates also took steps to protect youths from sustaining head injuries while snow skiing or snowboarding. They adopted policy that the AMA support legislation requiring the use of helmets by youths 17 and under during both sports activities. The policy encourages adults to use helmets, too.

Physicians should educate their patients about the importance of using helmets while skiing and snowboarding, the policy says. Rental helmets should be available at commercial skiing and snowboarding areas, it adds.

The AMA has added its voice to the important public health issue of ensuring the safety of pro athletes, school players and weekend warriors from injuries such as concussions.

Physicians play a vital role in limiting the health effects of concussions, and it stands to reason that the doctor has the final word on a player's well-being before any return to play is allowed. With doctors keeping an eye on the action from the sidelines, fields of play across the nation will be safer for everyone.

The print version of this content appeared in the Dec. 13 issue of *American Medical News*.

Copyright 2010 American Medical Association. All rights reserved.

RELATED CONTENT

- » **AMA meeting: Policy tackles head injuries in young athletes** Nov. 22
- » **Put me In, Doc: When doctors must say no to athletes** Oct. 18
- » **International registry aims to round up rodeo injuries** Aug. 20, 2007
- » **Medical time out: Physicians keep the teams playing** April 9, 2001

HOME - LATEST ISSUE - SITE GUIDE - ABOUT - CONTACT - AMERICAN MEDICAL ASSOCIATION

#3 SB 2281

POSITION STATEMENT ON SPORTS CONCUSSION

October 2010

The American Academy of Neurology (AAN)—an association of more than 22,500 neurologists and neuroscience professionals dedicated to providing the best possible care for patients with neurological disorders—is an advocate for policy measures that promote high quality, safe care of individuals participating in contact sports.

Concussion is a common consequence of trauma to the head in contact sports, estimated by the Centers for Disease Control and Prevention to occur three million times in the United States each year. Among people aged 15 to 24 years, sports are now second only to motor vehicle accidents as the leading cause of traumatic brain injury. While the majority of concussions are self-limited injuries, catastrophic results can occur and the long-term effects of multiple concussions are unknown.

Members of the AAN specialize in treating disorders of the brain and nervous system, and some members have particular interest and experience caring for athletes and are best qualified to develop and disseminate guidelines for managing athletes with sports-related concussion. Based on the clinical experience of these experts, the AAN supports the implementation of policy that supports the following recommendations:

Recommendations

1. Any athlete who is suspected to have suffered a concussion should be removed from participation until he or she is evaluated by a physician with training in the evaluation and management of sports concussions
2. No athlete should be allowed to participate in sports if he or she is still experiencing symptoms from a concussion.
3. Following a concussion, a neurologist or physician with proper training should be consulted prior to clearing the athlete for return to participation.
4. A certified athletic trainer should be present at all sporting events, including practices, where athletes are at risk for concussion.
5. Education efforts should be maximized to improve the understanding of concussion by all athletes, parents, and coaches.

Position Statement History

Approved by the AAN Sports Neurology Section, Practice Committee, and Board of Directors
October 2010 (AAN Policy 2010-36).

#3 SB2281

*In 1997 the AAN published a guideline titled "The Management of Concussion in Sports," which is available at www.aan.com; it defines concussion grade levels and provides recommendations. This guideline is currently being updated.

 www.aan.com/advocacy

 (651) 695-1940

 1080 Montreal Ave., St. Paul, MN 55116



SPORTS CONCUSSION

Jeffrey S. Kutcher, Christopher C. Giza, Anthony G. Alessi

ABSTRACT

Concussion is an injury to the brain occurring as the result of biomechanical forces, generally characterized by the rapid onset of a constellation of symptoms or cognitive impairment, which is typically self-limited and resolves spontaneously. Concussion as the result of playing sports is particularly common, estimated to occur up to 3.8 million times each year in the United States.¹ Although most concussions can be considered benign, the symptoms are often severe enough to interfere with daily function. A small percentage of concussions can be more serious, resulting in a prolonged symptom course, significant morbidity, or even death. The management of concussion in the athlete presents a unique set of challenges for the clinician, requiring not only a detailed neurologic history and examination, but also careful consideration of an athlete's risk of further injury and possible long-term sequelae.

Continuum: Lifelong Learning Neurol 2010;16(6):41-54

KEY POINT

- Between 1.6 and 3.8 million sporting concussions occur each year in the United States.

INTRODUCTION

Because of the violent nature of many popular sports, concussion has long been considered to be "part of the game." Even in many of the so-called noncontact sports, such as soccer, baseball, and field hockey, the velocities of the athletes and the presence of multiple ballistic objects or fixed impediments make concussion a common injury on the playing field. The Centers for Disease Control and Prevention estimate that between 1.6 and 3.8 million sporting concussions occur each year in the United States alone.¹ In the high school population, concussion is estimated to account for almost 9% of all athletic injuries.²

Despite their long-standing high prevalence, sports concussions have only recently garnered significant public attention. Over the past few months, both

frequent media reports as well as beginning governmental attempts to regulate certain aspects of sports concussion management have resulted in an increasing public awareness of the possible serious manifestations of concussion. **Table 3-1** presents the states that have enacted or proposed legislation specific to sports concussion within the past 2 years. An increasing interest from the scientific community can be demonstrated as well by performing a PubMed search that crosses the terms sports and concussion. The results of this search, stratified by decade, are shown in **Figure 3-1**. The heightened awareness in public, government, and scientific sectors highlights the need for neurologists to increase their involvement in sports concussion clinical care, education, and research. At the same, the need to include sports-specific issues

41

Relationship Disclosure: Drs Kutcher and Alessi have nothing to disclose. Dr Giza has received or plans to receive personal compensation for speaking engagements at academic centers and hospitals and for medicolegal consulting. Dr Giza is a recipient of the Thrasher Research Foundation grant.

Unlabeled Use of Products/Investigational Use Disclosure: Drs Kutcher and Alessi have nothing to disclose. Dr Giza discusses the use of advanced neuroimaging and computerized neuropsychological testing but does not mention them by proprietary name.

#4 5B2281 Copyright © 2010, American Academy of Neurology. All rights reserved.

Copyright © 2010 Lippincott Williams & Wilkins. Unauthorized reproduction of this article is prohibited.

KEY POINT

- Loss of consciousness may be a manifestation of concussion but is not required for diagnosis.

TABLE 3-1 States or Other Jurisdictions With Sports Concussion-Specific Legislation Enacted or in Process

► Legislation Passed

Maine
Oregon
Texas
Washington

► Legislation Pending

California
New Mexico

► Legislation Introduced

Connecticut
Florida
Howard County, Maryland
Massachusetts
Missouri
New Hampshire
North Carolina
Oklahoma
Pennsylvania
Rhode Island
Suffolk County, New York
Virginia

classified into three “grades” based on the duration of symptoms and the presence of LOC.³ This document also made recommendations regarding the management of concussed athletes by suggesting return-to-play timing based on this grading system. Clinical practice has shown, however, that predicting the course of any one concussion based on its initial presentation is extremely difficult.⁶⁻⁸ More recent consensus efforts have concluded that little clinical value can be ascribed to classifying concussion in the acute setting.⁹ Current clinical trends favor treating each concussion individually, further highlighting the value of a clinician’s experience in managing sports concussion over the availability of a written management protocol. Understanding this, the AAN has formed a multidisciplinary panel that is currently working to produce a new evidence-based guideline on sports concussion.

DEFINING CONCUSSION

Concussion is a biomechanically induced brain injury resulting in neurologic dysfunction.³ It is most commonly characterized by the rapid onset of a constellation of symptoms or cognitive impairment that is self-limited and resolves spontaneously.

LOC may be a manifestation of concussion but is not required for diagnosis. Concussions have been defined as injuries that do not produce an abnormality on standard structural neuroimaging.⁹ With that in mind, it should be noted that a concussion can also be present in the setting of other, more structural injuries such as fracture or hemorrhage.

CONCUSSION IN THE ATHLETE

For several reasons, the neurologist needs to be aware that providing concussion care for athletes presents a unique set of challenges. In contrast to concussions seen in the general population, the insulting force is not always

in traditional neurologic training is brought to the fore.

TRENDS

In order to improve sports concussion management and outcomes, several attempts have been made to establish a clinically relevant classification system for concussion.³⁻⁵

Early efforts focused on classifying the injury based on the presence or absence of a loss of consciousness (LOC). In 1997, the AAN published the recommendation that concussions be

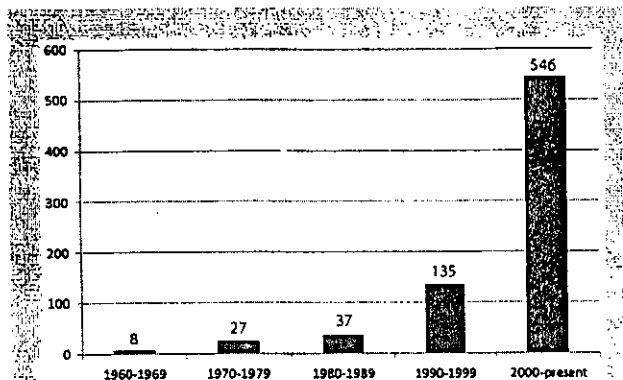


FIGURE 3-1 Number of publications returned for the PubMed search crossing the terms sports and concussion, by decade.

obvious. In contact sports, such as football, ice hockey, or wrestling, the athlete may experience dozens of impacts during the course of a game or practice. There may not always be one obvious extraordinary hit, but several routine hits, and it may be difficult at times to clearly diagnose a concussion. **Case 3-1**

illustrates this point. When a football player reports a headache after a full-contact practice, for example, it may be the result of a concussion, an exertional migraine headache, or the effect of an ill-fitting helmet. In the general population, the impacts are unintended and, therefore, much more obvious, such

Case 3-1

A 21-year-old college football player sustained a blow to the left side of the neck and body during a game. He developed paresthesias in the left arm and leg with no objective deficits on examination. The symptoms resolved completely over several hours. Imaging studies of the neck were normal. The following week, he suffered a head injury on the opening kickoff. He then reported a severe headache, left lower extremity paresthesias, and visual changes. Paresthesias and visual symptoms resolved in 3 hours, but the headache persisted for 2 days. Neurologic examination, MRI of the brain, and CT angiogram of the head and neck were normal.

Comment. Further investigation reveals a previous event in high school during which the athlete lost part of his visual field followed by a severe throbbing headache. A family history of migraine headache is also confirmed. With these additional pieces of history, it becomes more likely that the traumatic events described triggered a migraine headache. Not all reports of headache in the setting of contact sports are the direct result of concussion. Migraine headache presents with many of the typical symptoms of concussion, putting emphasis on the importance of careful neurologic history. Previous headache and family history can help establish the diagnosis, but the most telling aspect may be the pattern of the symptom timing that emerges after multiple events.

KEY POINTS

- Concussion symptoms and deficits are often more notable when the patient is trying to perform at a high level, either physically or cognitively.
- The return-to-play decision presents a unique array of challenges that may be foreign to the neurologist.
- The signs and symptoms of concussion typically begin immediately or within a few minutes of the impact in question. They may be maximal at onset or worsen over minutes to hours.

as a motor vehicle accident or a slip and fall.

Another difference is the presence of third-party influences or the motivation of a patient to be less than forthright about the history. In cases of concussion in the general population, one can expect, for the most part, that patients are providing an accurate history to the best of their ability, or if they are not, they are much more likely to be exaggerating rather than minimizing their symptoms. Conversely, athletes are more likely to possess the unique motivation to hide or minimize their symptoms in order to return to participation sooner. This same motivation often exists in the patient's family, coach, and teammates, making the history extremely difficult to ascertain.

Neurologists should also be aware that many athletes are looking to return to a level of physical activity and performance that would be considered extraordinary in the general population. Concussion symptoms and deficits are often more notable when the patient is trying to perform at a high level, either physically or cognitively. Exertion in either realm may also be a risk factor for symptom exacerbation and a prolonged injury course.

Perhaps the most important difference, however, lies in the nature of the return-to-play decision. In the general patient population, it is typically the case that the insulting biomechanical force is the result of an accident that would not be expected to recur in a short period of time. In sports, and in contact sports particularly, the risk of recurrence is significantly higher. The clinician must become familiar with the nature of the patient's chosen sport and the possible implications of a recurrent concussion, such as a worsening symptom complex, prolonged symptom course, postconcussion syndrome, or even the possibility of a devastating, life-threatening injury.

Clinical Presentation

In the acute setting, the signs and symptoms of concussion typically begin immediately or within a few minutes of the impact in question. They may be maximal at onset or worsen over the minutes to hours following the injury. In some cases, symptom onset may be delayed completely for up to several hours, especially when the athlete has continued with physical exertion after the impact or if a second impact occurs.¹⁰ Because of the possibility of a delay in symptom onset or symptom worsening, it is extremely difficult to clearly define a minimum duration of symptoms required to make a diagnosis of concussion. As noted earlier, LOC is not a requirement for diagnosis. The common acute signs of concussion include headache, disorientation, confusion, amnesia, dizziness, and incoordination. A more complete list of the acute signs and symptoms is presented in **Table 3-2**. Continued symptoms are likely caused by the neuronal metabolic mismatch described in the article "Mild Traumatic Brain Injury Update." This relationship may explain why continued participation and physical exertion are sometimes felt to result in a delayed presentation of symptoms or symptom worsening. It is widely held that in up to 90% of concussions, signs and symptoms are short-lived, resolving completely between 7 and 10 days.⁸

Acute Assessment and Management

When a concussion is suspected, the first consideration should always be for the athlete's safety. A careful assessment of airway, breathing, and circulation (ABCs) and the possibility of cervical spine injury should be closely followed by estimating the need for emergency medical services. It is essential that athletes who are suspected to have had a concussion be removed from the contest or practice until a certified health

TABLE 3-2 Common Signs and Symptoms of Concussion

► **Signs**

Amnesia prior to or after injury
 Behavior or personality change
 Confabulation
 Delayed verbal and motor responses
 Disequilibrium
 Disorientation
 Emotional lability
 Loss of consciousness
 Slurred/incoherent speech
 Vacant stare

► **Symptoms**

Blurry vision/double vision
 Confusion
 Dizziness
 Excessive drowsiness, sleep difficulty
 Feeling hazy, foggy, or groggy
 Headache
 Inability to focus, concentrate
 Nausea and/or vomiting
 Not feeling right
 Photophobia/phonophobia

mechanism of injury as well as the presenting signs and symptoms. The athlete should not be left alone for the subsequent 3 to 4 hours in case of clinical worsening. A significant change in mental status, especially level of consciousness, within this time frame may be an indication of a developing intracranial hematoma. In these cases, emergent evaluation with CT is required, along with the appropriate neurosurgical consultation.

The hallmark of concussion diagnosis lies in a thorough history and physical examination. The history should include a detailed account of the injury, the symptom and deficit course, and the athlete's physical and cognitive exertion levels between impact and presentation. The physical examination is critical, with many of the findings in concussion being subtle and dynamic. The mental status portion of the physical examination is particularly important, with deficits in attention span and memory being most pertinent. Disturbances in mood and affect are also common. These potentially subtle mental status examination findings speak to the value of the clinician having at least some preinjury knowledge of the concussed individual. A team physician, for this reason, is in a unique position to manage the concussed athlete. More objective physical findings may also include incoordination, nystagmus, or even subtle weakness demonstrated by a pronator drift. It can be very difficult to attribute such findings to a concussion alone, versus a more malignant injury, such as an intracranial hematoma. The timing of these findings in relation to the injury and how the findings themselves may be changing over time are both extremely important concepts to keep in mind. Any worsening of the clinical presentation should be considered carefully and in the first few hours following the impact should be considered an emergency until proven otherwise.

KEY POINT

- Any athlete with a suspected concussion should be removed from the contest or practice until evaluated by a certified medical caregiver.

care professional or physician knowledgeable in concussion evaluates them. If a concussion is diagnosed, the most prudent management is to remove the athlete from participation for the remainder of that day, with further evaluation to be performed on subsequent days prior to making a return-to-play decision. At the time of the injury, it is important to document the time and

In the acute setting, or even on the sidelines, several assessment tools can be used to help document the clinical presentation or, in some cases, aid in the diagnosis. The most recently published tool, the Sport Concussion Assessment Tool 2 (SCAT-2), is a product of the consensus statement from the 3rd International Conference on Concussion in Sport held in Zurich, Switzerland, in the fall of 2008.⁹ The SCAT-2 includes aspects that track concussion symptoms, cognitive performance, and balance. Several other assessment tools exist, with none having clear superiority or a data-driven evaluation that provides a quantitative estimation of its clinical value.¹¹ Whatever assessment tool is used, it is more valuable to have a preinjury baseline score for the athlete for reasons of comparison. These tools should be used with care, noting that environmental factors can act as significant distractions and affect performance. It is also important that no one tool be used in isolation, but rather as part of a comprehensive concussion management program, which is discussed in greater detail later in this article.

Once a concussion is diagnosed, attention should turn to symptom management. It is typically obvious to the clinician that environmental variables, such as bright lights, loud noises, and movement, are all exacerbating factors. In this way, the typical concussed patient is very similar to a person suffering from migraine headache. The concussed patient should be instructed to avoid physical and cognitive exertion as much as possible. Acetaminophen can be used immediately following the injury for headache control. A few hours after the injury, when the possibility of an undiagnosed intracranial hemorrhage has been minimized, the use of anti-inflammatory medications is reasonable. The patient should be instructed to maintain oral intake, sleep

liberally, and avoid any exacerbating activities, which may include television, video games, computer use, or texting.

Return-to-Play Decisions

As previously noted, it is important for the neurologist to understand the complex nature of the return-to-play decision. The clinician is essentially deciding that it is reasonable for the patient to resume the same high concussion risk activity that caused the injury in the first place. This "return-to-risk" decision is complicated by several factors, including the athlete's desire to compete and, therefore, misrepresent symptoms. Additionally, one needs to consider the increased risk of worsening or additional injury if the athlete returns too quickly. One study showed that collegiate football players who had suffered one concussion were 3.4 times more likely than uninjured teammates to sustain a subsequent concussion during the same season.¹⁰ This same study showed that prolonged symptom recovery may be associated with a history of prior concussion, although eventual full recovery to baseline is expected.

The underlying management principle is not to allow a concussed athlete to return to participation until it is reasonably certain that the physiologic effects of the concussion have abated. This process is anchored by a rigorous, artful, and, if necessary, serial history to elucidate the athlete's symptom burden. Perhaps no area of concussion management is better suited to the particular skill set of the neurologist.

If the athlete is felt to be symptom free without the use of medications, and the physical examination is completely normal, the neurologist should inquire as to the presence of any preinjury objective data that may have been collected as part of a comprehensive concussion management program. Athletic programs at all levels are increasingly utilizing differing modalities, including

computerized neurocognitive testing, scored balance systems, and reaction time mechanisms, in order to better estimate an athlete's neurologic baseline preconcussion. These tests are then repeated, typically after the patient is symptom free, for comparison. The use of these objective tests is covered in greater detail later in this article.

If an athlete's performance on objective testing is similar to that seen in the preinjury setting and the athlete is completely symptom free and has a normal neurologic examination, the moratorium on physical activity can be lifted. Physical activity should be reintroduced, however, in a very careful and graded manner. The purpose of this approach is to increase the demand on the brain in a stepwise fashion, giving the clinician the opportunity to determine whether the concussion's physiologic mechanism is still present, without exposing the brain to unnecessary risk. This process typically begins with a

simple cardiovascular challenge, such as 30 minutes on a stationary bike. The level of exertion should be enough to induce an obvious increase in metabolic demand. If the concussive symptoms recur, the trial should be stopped and the athlete should not attempt another trial until the next day, assuming that he or she is symptom free again at rest. If that challenge is tolerated, the athlete can proceed to increasing levels of exertion as presented in **Table 3-3**.

When considering the current injury alone, the return-to-play decision requires close and careful monitoring of signs and symptoms as the athlete progresses along this paradigm of graduated exertion, but a clear path to participation exists. When the injury is placed in the larger context of the athlete's overall sports and concussion experience, as well as the complete medical history, additional factors may still complicate the decision.

TABLE 3-3 Graduated Return-to-Play Protocol

Rehabilitation Stage	Functional Exercise at Each Stage of Rehabilitation	Objective of Each Stage
(1) No activity	Complete physical and cognitive rest	Recovery
(2) Light aerobic exercise	Walking, swimming, stationary bike	Increase heart rate
(3) Sport-specific exercise	Running drills in soccer, skating drills in hockey, etc	Add movement
(4) Noncontact drills	More complex training drills, may start resistance training	Coordination and cognitive load
(5) Full-contact practice	With medical clearance, participate in normal training activities	Restore confidence and assess functional skills by coaching staff
(6) Return to play	Normal game play	

Adapted with permission from McCrory P, Meeuwisse W, Johnston K, et al. Consensus statement on Concussion in Sport 3rd International Conference on Concussion in Sport held in Zurich, November 2008. Clin J Sport Med 2009;19(3):185-200.

The most common complicating factor is the presence of previous concussive injuries. No accepted absolute number of concussions that any one individual must experience before retiring from sports can be set. Each concussion is unique, and therefore each concussion history should be carefully fleshed out and judged on its own. For each previous concussion, the clinician should attempt to ascertain the details of the injury, including the mechanism, degree of force, and symptom duration. It is also very important to understand any subtle changes in cognition or personality that may be occurring over time. It is extremely difficult to appreciate these types of changes during the typical clinic visit; thus the clinician should be sure to ask about academic or job performance and the presence of social difficulties.

In some cases, it is clear that with each subsequent concussion, the athlete is experiencing a greater symptom burden for a longer period of time. A typical example is presented in **Case 3-2**.

In these situations, it is important to approach the return-to-play decision more conservatively, perhaps elongate the period of time that the athlete spends at each exertional level of the graded exercise paradigm, strongly con-

sider adding further diagnostic evaluation with a formal neuropsychological evaluation, and possibly consider specialized neuroimaging, such as diffusion-tensor imaging (DTI). At some point, the symptom burden may be significant enough to recommend that the athlete retire from sports, thus hoping to avoid the next concussion and minimize the potential for chronic sequelae.

Other cases can be complicated by additional intracranial pathology. Intracranial hemorrhage and skull fracture as the result of head injury add a layer of complexity to the decision-making process. Given the tremendous variability in the size and possible locations of these structural lesions, no single well-established guideline to follow exists. Each case should be considered individually. The governing principle is to best estimate the increased risk that any additional variable adds. **Case 3-3** discusses how the presence of a previous head injury resulting in a small hemorrhage might affect the return-to-play decision. If a hemorrhage is discovered as part of the evaluation of a mild traumatic brain injury (mTBI), it is worth investigating the possible presence of a structural lesion, such as an arteriovenous

48

Case 3-2

A 23-year-old hockey player presented after his fourth career concussion. Each of the first three concussions was related to hockey, included symptoms that resolved after 7 to 14 days, and did not involve LOC. The fourth and most recent event resulted in chronic and persistent dizziness, headache, and insomnia. Neurologic examination and imaging studies of the brain remained normal. Symptoms gradually resolved, and neuropsychometric scores returned to baseline over a period of 6 months. The patient never resumed his hockey career.

Comment. This case emphasizes one of the possible effects of multiple concussions, the prolonged symptom course. In these cases, it is essential to understand any additional factors that may be adding to the symptom burden. It is certainly possible that preexisting pathologies, including mood and sleep disorders, might also be at play. Alternatively, these ongoing problems may be the direct result of the injury itself. In either case, each symptom should be addressed and treated individually while alternative explanations are sought. Sleep difficulties, including insomnia and excessive fatigue, are especially common in individuals with a history of concussion. Adequate amounts of sleep are a crucial element to concussion recovery. Insomnia must be addressed as part of the treatment plan and may require medications, such as tricyclic antidepressants, which can address both the headache and sleep issues.

Case 3-3

A 15-year-old boy suffered a head injury as the result of a motorcycle accident, causing a small bleed in the left caudate head that is noted with CT. Headache and ataxia persisted for 2 weeks. Two years later, he suffered a concussion during a basketball game. Symptoms included anterograde amnesia lasting seconds, ataxia lasting minutes, and a headache that persisted for 2 weeks. Neuroimaging was negative, and he was able to resume running and lifting weights without symptoms. Should this athlete return to contact sports and, if so, when?

Comment. The question of when it is safe for an athlete to return to contact sports after neurologic injury is always a challenge. No specific formula has been determined, and many variables must be considered. In this case, it is worth noting that the second head injury produced a relatively typical concussion with normal neuroimaging. Given the remote history of the small caudate bleed, one can assume that this patient does have some increased risk from subsequent injury. However, considering that this bleed may not have been unexpected given the circumstances (motorcycle accident), no preexisting underlying structural abnormality is present, and the second injury did not cause hemorrhage, the actual increased risk of complicating a subsequent concussion with repeat hemorrhage is likely quite low. It is also important to note the lack of a skull fracture in the initial injury, which would have added another layer of increased, although difficult to quantify, risk.

Some consideration should also be given to the fact that this patient has had two concussions. Given the appropriate time to heal and a careful return to exertion with a graded paradigm, however, this patient may not have any long-term sequelae or suffer from a more complicated course if he were to sustain a third concussion. Estimating this risk is extremely difficult, and particular attention should be paid to family history variables, such as intracerebral hemorrhage, frequent concussions, and dementia. Close attention should also be paid to the patient's baseline cognition and personality. Future return-to-play or retirement decisions could be aided by the presence of objective baseline data, which should only be obtained once the patient is asymptomatic from the current injury.

malformation, that may have been the origin of the hemorrhage.

NEUROIMAGING

mTBIs that result in concussion typically do not cause abnormalities on traditional neuroimaging studies—CT and standard MRI. While some structural injury may occur in the setting of concussion, it is beyond the sensitivity of these modalities.¹² As such, most concussions do not lead to neuroimaging studies. Given that concussion management is still based primarily on clinical measures, such as symptom checklists, physical examination, and computerized neurocognitive testing, tremendous interest exists in investigating more advanced neuroimaging techniques that may better quantify the functional disturbances of the concussed brain. These include

DTI, fMRI, MR spectroscopy (MRS), and PET.

Each of these modalities has potential advantages and disadvantages for use in concussion. Both MRS and PET provide images that demonstrate functional cerebral metabolism and could potentially be used to delineate the physiologic changes seen in concussion, while fMRI provides real-time feedback on cerebral metabolism during specific cognitive or motor tasks. DTI provides a modality for measuring white matter integrity and connectivity. Each of these technologies requires relatively long collection times, and other than PET, they all require post-imaging data processing. PET involves the injection of a radioisotope and the need for not only a PET scanner but also a cyclotron to produce radioisotopes.¹²

While none of these modalities has a widespread clinical role in the current management of sports concussion, continued investigation into their sensitivity and specificity for concussion, their ability to estimate injury severity, and their role in documenting long-term sequelae are important aspects of improving sports concussion care.

SECOND-IMPACT SYNDROME

Second-impact syndrome (SIS) is a rare form of re-injury that occurs prior to the complete resolution of a previous concussion.¹³ SIS diagnoses have been described in a series of case reports involving a second, sometimes minor, head trauma that leads to a devastating injury or death. In such cases, diffuse cerebrovascular dysregulation is thought to lead to massive cerebral edema and subsequent herniation. Some disagreement exists, however, about the prevalence of this diagnosis and the accuracy of the proposed mechanism. Cases of delayed-onset diffuse cerebral edema following relatively minor head traumas, without a previously documented injury, have also been described.^{14,15} An attempt to investigate the similarities among 17 of the published case reports of suggested SIS found that none fulfilled all four diagnostic criteria that were proposed by the author and only five could be classified as "probable" SIS.¹⁶ It is certainly possible that all of these cases, regardless of their terminology, have a common pathophysiology. Recently, a mutation in the CACNA1A calcium channel subunit gene that is associated with familial hemiplegic migraine was linked to cases of fatal malignant brain edema.¹⁷

Interestingly, almost all of the suspected cases of SIS have occurred in athletes younger than age 20, with most being 18 years old or younger. This may implicate an, as yet undefined, unique quality of the still-developing brain that significantly determines the risk of these types of injuries. It may also be an epi-

demologic phenomenon driven by the low prevalence of a particular genetic trait, such as a mutation in a calcium channel gene, and the age structure of the athletic population. Given that, as of this writing, fewer than 30 cases of suspected SIS or malignant cerebral edema have been described, it may not be surprising that all of the cases have been described in the age group that has the highest head trauma exposure risk.

CHRONIC CUMULATIVE EFFECTS

It is widely accepted that the symptomatic effects of up to 90% of concussions are short-lived, lasting only 7 to 10 days.⁹ This viewpoint puts sports concussion in the light of being a transient phenomenon with little or no long-lasting effects. There is increasing concern, however, that this may not be the case. On the extreme side of the sports concussion spectrum, professional boxers are well known to have a risk of developing permanent alterations in brain function.¹⁸ A growing body of literature is now raising concern, however, that cumulative effects may also be occurring in athletes who sustain more "routine" injuries as a function of playing a contact sport such as football or ice hockey.^{19,20} Possible long-term effects include chronic motor and neuropsychological deficits.^{21,22} Recently, de Beaumont and colleagues found that former ice hockey and football players who had a remote history of concussion, up to 30 years prior to testing, showed cognitive and motor deficits when compared to those without a concussion history.²² Conversely, a separate study found no such association in college athletes.²³

A separate concern is the possibility that repetitive concussion may be a risk factor for, or lead directly to, a dementing illness. Termed chronic traumatic brain injury, dementia pugilistica, or chronic traumatic encephalopathy (CTE), this relationship has been classically described

in retired boxers.^{24,25} More recent work has shed light on the possibility that a similar relationship may be seen in retired football players. Guskiewicz and colleagues described retired professional football players with a history of three or more concussions who were 5 times more likely to have mild cognitive impairment.²⁶ Speaking more directly to possible tau-related dementing pathology, McKee and colleagues reviewed the autopsy findings of three professional athletes as well as the published reports of 48 cases of suspected CTE and concluded that CTE is a "neuropathologically distinct...tauopathy with a clear environmental etiology."²⁷

BASELINE TESTING

The management of sports concussions remains highly dependent on clinical information and is particularly dependent on subjective symptom reporting. Any objective data that can be used to help diagnose concussion and, more importantly, manage it appropriately, can be very helpful. Objectively measuring brain function can be an extremely difficult task, given the wide range of what one would consider to be normal functional output. Consequently, a large portion of concussion management is not about detecting a truly abnormal finding but being able to quantify the change that is seen in the concussed athlete's functional abilities.

Baseline data typically come from three domains: cognitive, balance, and motor reaction time. Although potentially useful, baseline data can be difficult to obtain and use correctly. The first significant hurdle is in obtaining baseline data that are a true reflection of the athlete's ability. Several factors, including motivation, environmental conditions, and poor effort can produce abnormally low baseline scores in any domain. Practice effects and expected test-retest differences are other variables to keep in

mind. As much as possible, the baseline and postinjury testing environments should be free of distraction and similar to each other. Finally, any additional physiologic variables, such as sleep deprivation, medication use, or illness, should be noted. Whatever modality is used, the clinician should make an informed judgment as to the value of the data that are being presented.

As difficult as this process may be, especially for a large team or athletic program, the data can be invaluable when making return-to-play decisions. We suggest that the sports medicine staff responsible for performing these tests become very familiar with the particular nuances of their chosen modality, program, or protocol. Sports concussion care providers should become familiar with the nature of the data that are being collected, how they are interpreted, and how they may be affected by the influences mentioned above. Several options are available for measuring cognitive performance, both computerized and more traditional manual tests. We do not emphasize the validity of one over the other or recommend one particular program. Rather, we urge their careful and prudent use.

PEDIATRIC CONSIDERATIONS

Recognizing that children and adolescents are not just little adults, recent consensus guidelines have indicated a need for pediatric-specific modifications to adult concussion management plans.⁹ Although no evidence-based pediatric guidelines are yet available, an increasing number of studies indicate that age effects are relevant in determining the appropriate postconcussion management plan. Field and colleagues compared symptom checklists and neuropsychological testing between concussed high school and collegiate athletes and found those in high school demonstrated impairments of learning and memory up to 7 days postinjury, while collegiate

athletes recovered to control levels by postinjury day 3.²⁸ Prolonged (6-day to 7-day) neurocognitive recovery in high school athletes after concussion has been reported in at least two other studies, suggesting that return-to-play guidelines may need to be more conservative in younger concussed athletes.^{29,30}

Furthermore, in the Field and colleagues study, neurocognitive impairments in the concussed high school athletes were still demonstrable at time points at which their clinical symptom checklists had returned to baseline levels.²⁸ In a related finding, high school athletes with rapid resolution of postconcussive symptoms (less than 15 minutes) were reported to develop measurable cognitive impairment and worsening of symptoms several days after these seemingly mild concussions.³¹ These data imply that measurable deficits in learning and memory may occur in younger athletes in the absence of significant symptomatology or in a delayed fashion after an apparent rapid resolution of acute symptoms.

The underlying reasons for these developmental distinctions are not entirely clear. Age-dependent differences seen clinically may result from physiologic vulnerabilities, genetic predisposition, parental perceptions,³² or even differences in neuropsychological test sensitivity due to rapidly changing developmental baselines.³³

Using animal models, data following experimental concussive TBI in the immature brain have shown impairment of neuroplasticity and delayed development of cognitive deficits.³⁴ Other animal data indicate that unmyelinated fibers may be more vulnerable to biomechanical forces.³⁵ Myelination, particularly in the frontal lobes, is incomplete in humans until the early adult years, and clinical studies of white matter integrity using DTI have shown abnormalities after mTBI in adolescents.³⁶ These data support a role for axonal dysfunction in the

genesis of cognitive deficits after concussive brain injury. Not all experimental data point to worse pathophysiology in the young brain, however. Recovery from delayed cerebral glucose hypometabolism appears to occur more rapidly in immature rats than in adults.³⁷

CONCLUSION

Concussion is perhaps the single most common form of acquired brain injury, and the role for neurologists in the proper assessment and management of this entity is likely to grow. In distinction to prior perceptions of concussions as benign events, and a mentality, particularly in sports, to "tough it out," more recent evidence suggests that even mTBI can induce a neurometabolic cascade of dysfunction that may predispose the brain to ongoing impairment and potential for recurrent or cumulative damage. Proper management of sports concussions depends on identification of relevant signs and symptoms, removal of the athlete from potential repeat injury, and serial assessment of neurologic function. In general, individuals with uncomplicated concussions are able to recover fully. However, even after the patient becomes asymptomatic, a prudent approach is to recommend a graded return to activity, particularly when contact sports are involved. Increasing evidence demonstrates that recurrent concussive (or perhaps even subconcussive) injuries may lead to chronic neurocognitive impairment or even early onset of dementia, factors that should be considered when evaluating and informing the multiply concussed athlete of the risk of returning to play. Finally, increasing animal and human data suggest that the developing brain's reaction to concussive injury is distinct from the mature brain, and that age-specific clinical guidelines for concussion management be developed, with perhaps a more conservative approach to assessment and recovery.

REFERENCES

1. Langlois JA, Rutland-Brown W, Wald MM. The epidemiology and impact of traumatic brain injury: a brief overview. *J Head Trauma Rehabil* 2006;21(5):375-378.
2. Gessel LM, Fields SK, Collins CL, et al. Concussions among United States high school and collegiate athletes. *J Athl Train* 2007;42(4):495-503.
3. American Academy of Neurology. Practice parameter: the management of concussion in sports (summary statement): report of the Quality Standards Subcommittee. *Neurology* 1997;48(3):581-585.
4. Aubry M, Cantu R, Dvorak J, et al. Summary and agreement statement of the First International Conference on Concussion in Sport. Vienna, 2001: recommendations for the improvement of safety and health of athletes who may suffer concussive injuries. *Br J Sports Med* 2002;36(1):6-10.
5. Cantu RC. Posttraumatic retrograde and anterograde amnesia: pathophysiology and implications in grading and safe return to play. *J Athl Train* 2001;36(3):244-248.
6. Lovell MR, Iverson GL, Collins MW, et al. Does loss of consciousness predict neuropsychological decrements after concussion? *Clin J Sport Med* 1999;9(4):193-198.
7. McClincy MP, Lovell MR, Pardini J, et al. Recovery from sports concussion in high school and collegiate athletes. *Brain Inj* 2006;20(1):33-39.
8. McCrea M, Guskiewicz KM, Marshall SW, et al. Acute effects and recovery time following concussion in collegiate football players: the NCAA concussion study. *JAMA* 2003;290(19):2556-2563.
9. McCrory P, Meeuwisse W, Johnston K, et al. Consensus statement on concussion in sport 3rd International Conference on Concussion in Sport held in Zurich, November 2008. *Clin J Sport Med* 2009;19(3):185-200.
10. Guskiewicz KM, McCrea M, Marshall SW, et al. Cumulative effects associated with recurrent concussion in collegiate football players: the NCAA concussion study. *JAMA* 2003;290(19):2549-2555.
11. Eckner JT, Kutcher JS. Concussion symptom scales and sideline assessment tools: a critical literature update. *Curr Sports Med Rep* 2010;9(1):8-15.
12. Difiori JP, Giza CC. New techniques in concussion imaging. *Curr Sports Med Rep* 2010;9(1):35-39.
13. Cantu RC, Voy R. Second impact syndrome: a risk in any contact sport. *Physician Sports Med* 1995;23:27-34.
14. Bruce DA, Alavi A, Bilaniuk L, et al. Diffuse cerebral swelling following head injuries in children: the syndrome of "malignant brain edema." *J Neurosurg* 1981;54(2):170-178.
15. Snoek JW, Minderhoud JM, Wilmink JT. Delayed deterioration following mild head injury in children. *Brain* 1984;107(pt 1):15-36.
16. McCrory P, Berkovic S. Second impact syndrome. *Neurology* 1998;50(3):677-683.
17. Kors EE, Terwindt GM, Vermeulen FL, et al. Delayed cerebral edema and fatal coma after minor head trauma: role of the CACNA1A calcium channel subunit gene and relationship with familial hemiplegic migraine. *Ann Neurol* 2001;49(6):753-760.
18. Jordan BD, Relkin NR, Ravdin LD, et al. Apolipoprotein E epsilon4 associated with chronic traumatic brain injury in boxing. *JAMA* 1997;278(2):136-140.

19. Collins MW, Grindel SH, Lovell MR, et al. Relationship between concussion and neuropsychological performance in college football players. *JAMA* 1999;282(10):964-970.
20. Matser EJ, Kessels AG, Lezak MD, et al. Neuropsychological impairment in amateur soccer players. *JAMA* 1999;282(10):971-973.
21. De Beaumont L, Lassonde M, Leclerc S, Theoret H. Long-term and cumulative effects of sports concussion on motor cortex inhibition. *Neurosurgery* 2007;61(2):329-336.
22. De Beaumont L, Theoret H, Mongeon D, et al. Brain function decline in healthy retired athletes who sustained their last sports concussion in early adulthood. *Brain* 2009;132(pt 3):695-708.
23. Bruce JM, Echemendia RJ. History of multiple self-reported concussions is not associated with reduced cognitive abilities. *Neurosurgery* 2009;64(1):100-106.
24. Martland H. Punch drunk. *JAMA* 1928;91(15):1103-1107.
25. Critchley M. Medical aspects of boxing, particularly from a neurological standpoint. *Br Med J* 1957;1(5015):357-362.
26. Guskiewicz KM, Marshall SW, Bailes J, et al. Association between recurrent concussion and late-life cognitive impairment in retired professional football players. *Neurosurgery* 2005;57(4):719-726.
27. McKee AC, Cantu RC, Nowinski CJ, et al. Chronic traumatic encephalopathy in athletes: progressive tauopathy after repetitive head injury. *J Neuropathol Exp Neurol* 2009;68(7):709-735.
28. Field M, Collins MW, Lovell MR, Maroon J. Does age play a role in recovery from sports-related concussion? a comparison of high school and collegiate athletes. *J Pediatr* 2003;142(5):546-553.
29. Sim A, Terryberry-Spohr L, Wilson KR. Prolonged recovery of memory functioning after mild traumatic brain injury in adolescent athletes. *J Neurosurg* 2008;108(3):511-516.
30. McClincy MP, Lovell MR, Pardini J, et al. Recovery from sports concussion in high school and collegiate athletes. *Brain Inj* 2006;20(1):33-39.
31. Lovell MR, Collins MW, Iverson GL, et al. Grade 1 or "ding" concussions in high school athletes. *Am J Sports Med* 2004;32(1):47-54.
32. Nacajauskaite O, Endziniene M, Jureniene K, Schrader H. The validity of post-concussion syndrome in children: a controlled historical cohort study. *Brain Dev* 2006;28(8):507-514.
33. McCrory P, Collie A, Anderson V, Davis G. Can we manage sport related concussion in children the same as in adults? *Br J Sports Med* 2004;38(5):516-519.
34. Giza CC, Griesbach GS, Hovda DA. Experience-dependent behavioral plasticity is disturbed following traumatic injury to the immature brain. *Behav Brain Res* 2005;157(1):11-22.
35. Reeves TM, Phillips LL, Povlishock JT. Myelinated and unmyelinated axons of the corpus callosum differ in vulnerability and functional recovery following traumatic brain injury. *Exp Neurol* 2005;196(1):126-137.
36. Wozniak JR, Krach L, Ward E, et al. Neurocognitive and neuroimaging correlates of pediatric traumatic brain injury: a diffusion tensor imaging (DTI) study. *Arch Clin Neuropsychol* 2007;22(5):555-568.
37. Thomas S, Prins ML, Samii M, Hovda DA. Cerebral metabolic response to traumatic brain injury sustained early in development: a 2-deoxy-D-glucose autoradiographic study. *J Neurotrauma* 2000;17(8):649-665.

ETHICAL PERSPECTIVES IN NEUROLOGY: SPORTS-ACQUIRED TRAUMATIC BRAIN INJURY

Michael B. Russo, Kevin E. Crutchfield

The practice of neurology presents a series of ethical challenges for the clinician. These rarely have simple or straightforward solutions, but require careful consideration by the neurologist. This section of *CONTINUUM*, written by colleagues with particular interest in the area of bioethics, provides a case vignette that raises one or more ethical questions related to the subject area of this issue. The discussion that follows should help the reader understand and resolve the ethical dilemma.

Hypothetical Case

A 16-year-old boy came to the office with his parents because he may have had a concussion during a high school football game the past weekend and needed to be cleared to play in an important game 4 days later. He said that during the past weekend's game he got "dinged." He had told his coach, who removed him from the game and sent him to the emergency department (ED). The ED physician said that the head CT was normal, but he would not clear the boy to play and referred him for a neurology consultation for clearance. The boy said that he had had this kind of contact before, but this was the first time he had experienced persistent symptoms. He had a "dizzy and spacey" feeling that resolved in a couple of days but still had headaches, although they were better. His parents had observed him feeling dizzy and spacey and said it appeared that his headaches worsened if he exerted himself.

The patient's neurologic examination was normal, with the exception of subtle ataxia, ie, abnormal tandem gait and stance. The head CT performed the night of the concussion was normal. With subtle but definite abnormalities on examination and persistent symptoms of concussion, the boy and his parents were informed that he could not return to play for at least another week. They pled for him to be cleared to play. Several college scouts would be at next weekend's game to see him play. The patient said that he had to play so the scouts could select him for a scholarship, and his family could not afford a college education for him otherwise. They said that their neighbor, who was a physician, told them their son was fine and should be allowed to play. Finally, they demanded that the neurologist not send a report to the football coach stating that they knew that federal privacy regulations prevented the neurologist from releasing the information to anyone without their permission, which they refused to give.

161

COMMENT

- Sports-related concussion has received significant public attention during the past two years. The National Football League (NFL) has created new guidelines and in July 2010

Relationship Disclosure: Dr Russo has nothing to disclose. Dr Crutchfield has received or anticipates receiving personal compensation for acting as an expert witness in a medical liability case.

Unlabeled Use of Products/Investigational Use Disclosure: Drs Russo and Crutchfield have nothing to disclose.

#4 SB 2281

distributed a poster for NFL locker rooms that "warns of the dangers of concussions in much harsher language than before."¹ This topic has also been the subject of hearings in the US Congress in 2009 and 2010.²⁻⁴ In 2007, the Centers for Disease Control and Prevention (CDC) reported that each year between 2001 and 2005 an estimated 207,830 patients with nonfatal sports-related traumatic brain injuries were treated in US hospital EDs, of which 10% were admitted to the hospital, meaning that 90% of patients with sports-related head injuries were sent home.⁵ The highest incidence occurred among those between the ages of 10 and 19; 70% were boys and 30% were girls. When this report was published, the CDC also launched a national campaign called "Heads Up on Brain Injury."⁶ As of May 2010, at least three states (Oregon, Texas, and Washington) had passed legislation that addressed concussion education and athletes' return to play, and more states are expected to follow suit.⁷ Neurologists can expect to evaluate greater numbers of young athletes for concussion and to be asked to give their clearance for athletes' return to play.

This case presents several ethical dilemmas:

- (1) Does the patient's need for a college scholarship provide sufficient ethical justification to allow him to return to play at this point?
- (2) Conversely, does the need to prevent a second concussion in the short-term or the cumulative effects of concussions in the long-term provide sufficient ethical justification to prevent him from playing?
- (3) Can the neurologist share the report with the coach despite the parents' instructions not to do so?

DISCUSSION

► Treatment of teenagers with sports-related concussion is rarely simple or straightforward, especially when their wish is to continue playing despite medical concerns. In the current case, the problem is magnified because the boy's desire to play is supported by his parents, and the decision to keep him from playing is arguably harmful to him and his family, as he may lose the opportunity for a college scholarship. Thus, lifelong consequences may result if he is prevented from playing. On the other hand, with definite signs and symptoms of a concussion, this athlete is at increased risk of sustaining a second concussion because his reaction time is likely to be impaired. He could suffer permanent and more severe brain injury or death if he were to sustain another concussion,⁸ as adolescents are at a greater risk of the second-impact syndrome.

Assessment of the risks and benefits of alternative treatment decisions is inherent to almost every decision that neurologists make in treating patients. Normally, the risks and benefits are directly related to the patient's health and potential outcomes. In this case, the medical risks of returning to play are well known and substantial. A prospective nonrandomized study of 16,624 player seasons from 1999 to 2004 found that the risk of a second concussion was 3.8%, with 80.0% occurring within 10 days of the initial concussion.⁹ Inexplicably, patients who returned to play before resolution of symptoms had a lower rate of second concussion (0.9%); however, the authors recommend waiting 10 days because of a window of increased vulnerability during the first 7 to 10 days after concussion. Thus, according to available guidelines and evidence, the neurologist's recommendation that the boy not return to play is justified on the basis of preventing injury.

The ethical analysis is more complex, however, because the boy and his parents assert that he will be harmed if he is kept from playing. The harm in this case is not to

his health; rather, it is a lost opportunity to win a college scholarship. Preventing him from playing could keep him from attending college, which would have a lifelong detrimental effect on his career and earning potential.

Is it ethically permissible for the neurologist to weigh the medical risks of returning to play against the lost opportunity of college scholarship and future employment? The AAN Code of Professional Conduct (1.1) indicates that the "profession of neurology exists primarily to study, *diagnose and treat disorders of the nervous system*" [italics added].¹⁰ As a general rule, neurologists may consider the financial costs of tests or treatments when caring for patients, as long as doing so does not compromise the effectiveness of the treatment plan—for example, using a lower-cost generic medication rather than a name-brand medication. Neurologists may consider the financial and employment consequences of their medical assessments and determinations when evaluating patients; however, it would not be appropriate to give more weight to these matters than to the medical risks, benefits, and consequences for the patient. In fact, in this case, the consequences represent a potential conflict of interest in decision making for the patient and his parents, and the neurologist has a duty to minimize these interests in favor of the patient's health and medical interests. While the AAN has no specific guidance, the International Federation of Sports Medicine Code of Ethics states, "The physician's duty to the athlete must be his/her first concern and contractual and other responsibilities are of secondary importance."¹¹ Only if the medical risks of a decision were minimal would it be appropriate to allow the scholarship consideration to outweigh the medical consideration. Thus, the best decision in this case is to keep the patient out of competition.

Despite the parents' demands that the neurologist not send a report to the coach, sound ethical and regulatory justification exists for the neurologist to share the report with the patient's coach or other health care professionals involved in his care. (1) The National Federation of State High School Associations 2010 sports concussion guidelines state, "Any athlete who is removed from play because of a concussion should have medical clearance from an appropriate health care professional before being allowed to return to play or practice."¹² The patient's coach therefore is in need of the neurologist's report. (2) The legal justification for disclosing to the coach despite the parents' objection is less clear. State law may require a medical examination of an athlete with a suspected concussion before the coach may allow the athlete to return to play. (3) The Health Insurance Portability and Accountability Act (HIPAA) regulations allow, in very limited situations, information to be carefully disclosed if "necessary to prevent or lessen a serious and imminent threat to the health or safety of a person." Because the patient's parents object, any disclosure of protected health information about a minor may involve an interpretation of state law, and the HIPAA rule requires an analysis of the factual context (ie, is the disclosure in good faith and [1] necessary to [2] prevent or lessen a [3] serious and imminent threat to the [4] health and safety of a person). To prevent a problem such as the one in the case, at the beginning of the evaluation the neurologist could address with the patient and his parents the HIPAA-related issues and the requirement to disclose the examination results to the coach regardless of the findings. In this circumstance, however, the neurologist should seek an opinion from an attorney familiar with HIPAA to confirm that disclosure to the coach is permissible.

CONCLUSION

The ethical choices involved in determining whether an athlete with a concussion can return to play should be based on the patient's current and future health, with an emphasis

on injury prevention. Other considerations, such as missed opportunities for college scholarships or important games, such as championship playoffs, while important to the athlete or others, should be secondary and should not override the treating neurologist's best medical judgment.

ACKNOWLEDGMENT

We thank Murray Sagsveen, JD, CAE, for his assistance with legal research for this article.

REFERENCES

1. Associated Press. League's new poster uses stronger language about concussions. July 27, 2010. Available at: www.nfl.com/news/story/09000d5d81952853/printable/leagues-new-poster-uses-stronger-language-about-concussions. Accessed August 16, 2010.
2. Committee on the Judiciary, House of Representatives. Hearing on: legal issues relating to football head injuries. Available at: www.judiciary.house.gov/hearings/hear_091028.html. Accessed August 16, 2010.
3. Committee on the Judiciary, House of Representatives. Field hearing on: legal issues relating to football head injuries, part II. Available at: www.judiciary.house.gov/hearings/hear_100104.html. Accessed August 16, 2010.
4. Committee on the Judiciary, House of Representatives. Forum on: key issues related to the identification and prevention of head injuries in football. Available at: www.judiciary.house.gov/hearings/hear_100524.html. Accessed August 16, 2010.
5. Nonfatal traumatic brain injuries from sports and recreational activities—United States, 2001–2005. Morbidity and Mortality Weekly Report. Available at: www.cdc.gov/mmwr/preview/mmwrhtml/mm5629a2.htm. Accessed August 16, 2010.
6. Centers for Disease Control and Prevention. Concussion and mild TBI. Available at: www.cdc.gov/concussion/. Updated June 30, 2010. Accessed August 16, 2010.
7. Kohn LT. Concussion in high school sports: overall estimate of occurrence is not available, but key state laws and nationwide guidelines address injury management. GAO-10-569T. US Government Accountability Office. Available at: www.gao.gov/new.items/d10569t.pdf. May 2010. Accessed August 16, 2010.
8. Mueller FO, Colgate R. Annual survey of football injury research. Waco, TX: American Football Coaches Association, and Indianapolis, IN: National Collegiate Athletic Association and National Federation of State High School Associations, 2009.
9. McCrea M, Guskiewicz K, Randolph C, et al. Effects of a symptom-free waiting period on clinical outcome and risk of reinjury after sport-related concussion. *Neurosurgery* 2009;65(5):876–883.
10. American Academy of Neurology. Code of professional conduct. 2008. Available at: www.aan.com/globals/axon/assets/3968.pdf. Accessed August 16, 2010.
11. International Federation of Sports Medicine. Code of ethics. Sept. 23, 1997. Available at: www.fims.org/pages/311417173/FIMS/General/codeofethics.asp. Accessed August 16, 2010.
12. National Federation of State High School Associations. Suggested guidelines for management of concussion in sports. Available at: www.nfhs.org/content.aspx?id=3325. 2009. Accessed August 16, 2010.

ADDITIONAL RESOURCES

Concussion in sports. National Collegiate Athletic Association. Available at: www.ncaa.org/wps/portal/ncaahome?WCM_GLOBAL_CONTEXT=%2Fncaa%2Fncaa%2Facademics+and+athletes%2Fpersonal+welfare%2Fhealth+and+safety%2Fconcussion. 2010. Accessed August 16, 2010.

NCAA concussion management plan: National Collegiate Athletic Association. Available at: www.ncaa.org/wps/wcm/connect/327bf600424d263692cdd6132e10b8df/Memo+Concussion+Managmen+04292010.pdf?MOD=AJPERES&CACHEID=327bf600424d263692cdd6132e10b8df 2010. Accessed August 16, 2010.

O'Reilly KB. Put me in, Doc: When doctors must say no to athletes. American Medical News. October 18, 2010. www.amednews.com. Accessed October 21, 2010.

#4 SB2281



SB 2281 – Testimony in favor of this measure on Monday, January 24, 2011

Chairman Freborg and members of the Senate Education Committee, my name is Richard Ott and I am the executive director of the Head Injury Association of North Dakota.

I am here to speak in favor of the bill before you.

The most important reason is, of course, is that his protocol, if adopted, will prevent some possible traumatic brain injuries and that's what everyone wants. Prevention is a major goal of our organization. A traumatic brain injury is a devastating event – it is even more devastating if it could have been prevented.

As a spin-off feature of this bill, it will help raise public awareness of the TBI epidemic that is already with us and promises to get worse.

Please regard our organization as a firm supported of this bill and I would be pleased to answer any questions you might have.

Respectfully submitted,

Richard D. Ott
Executive Director, HIA/ND

#5 SB 2281

Senate Education Committee
Sixty-Second Legislative Assembly of North Dakota
Senate Bill No. 2281
January 24, 2011

Good Morning, Chairman Freborg and Members of the Senate Education Committee: I am Pamela Mack, testifying for the Protection & Advocacy Project. The Protection & Advocacy Project is an independent state agency that acts to protect persons with disabilities from abuse, neglect, and exploitation, and advocates for the rights of persons with disabilities. I am offering testimony in support of Senate Bill 2281 as submitted to you today.

As a disability rights organization, P&A has seen the long term effects that a brain injury can create. Addressing prevention and appropriate management of concussions is one way to ensure that a life-long injury is not sustained. The Centers for Disease Control and Prevention estimate that each year, U.S. emergency departments treat an estimated 135,000 sports- and recreation-related TBIs, including concussions, among children ages 5 to 18. In addition, the CDC has identified once a concussion has been sustained, athletes are at an increased risk for repeat concussions.¹

Consistent with the previous support given to SB 2163, this bill would ensure that all school districts across the state of North Dakota comply with a concussion management program that focuses on prevention and safe

¹ <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5629a2.htm>

management of sustained brain injuries related to concussions in high school sports and activities. This bill also supports appropriate inclusion of medical personnel in decisions regarding when it is safe for an athlete to return to a sport, which is extremely important regarding prevention of re-occurrence.

The North Dakota Protection & Advocacy Project supports Senate Bill 2281 and encourages you to make a "do pass" recommendation to the full Senate. Thank you. I would be happy to answer any questions that you may have for me.



**North Dakota High School Activities Association
Concussion Management Procedure**



Due to the increased focus on minimizing the risk for athletes exhibiting signs, symptoms and behaviors of a concussion, the National Federation of State High School Associations (NFHS) has placed the following language in all sports rule books beginning in 2010-11:

"An athlete who exhibits signs, symptoms or behaviors consistent with a concussion (such as loss of consciousness, headache, dizziness, confusion, or balance problems) shall be immediately removed from the contest and shall not return to play [that day] until cleared by an appropriate health-care professional."

It is highly recommended that every coach, official, student-athlete and parent should successfully complete the 20 minute NFHS online course **"Concussion in Sports—What You Need to Know"**. The course can be accessed at: www.nfhslearn.com

To implement this rule change, the NDHSAA Medical Advisory Committee has recommended the following procedures, which have been approved by the NDHSAA Board of Directors:

Role of contest officials in administering the new rule change

Officials are encouraged to review and know the signs and symptoms of a concussion and immediately remove any athlete who displays the following signs or symptoms from the contest.

- | | | |
|----------------------------|-----------------------------|--|
| • Headache | • Difficulty with memory | • Sensitivity to light and sounds |
| • Fogginess | • Nausea | • Mood changes—irritable, anxious or tearful |
| • Difficulty concentrating | • Lack of energy, tiredness | |
| • Easily confused | • Dizziness, poor balance | |
| • Slowed thought process | • Blurred vision | |

Only an Appropriate Health Care Professional (AHCP) can determine if an athlete has had a concussion.

- An Appropriate Health Care Professional is empowered to determine whether an athlete has received a concussion.
 - Member schools shall determine their AHCP. AHCP is defined as a medical professional functioning within the levels of their medical education, medical training, and medical licensure.
- If it is determined that an athlete has a concussion, that decision is final and the athlete must be removed from all competition for the remainder of that day.
- If the event continues over multiple days, the designated event AHCP has ultimate authority regarding any return to play decision during the event.

Procedure to follow if an official removes an athlete and the AHCP has determined the athlete does not have a concussion

- If it is confirmed by the school's designated AHCP that the athlete was removed from competition but did not sustain a concussion, the head coach may so advise the officials during an appropriate stoppage of play, and the athlete may reenter competition pursuant to the contest rules.

Procedure regarding an authorization to return to practice/competition in the sport:

- Once a concussion has been diagnosed by an AHCP, only an AHCP can authorize a subsequent return to play.
 - The clearance must be in writing;
 - The clearance may not be on the same date on which the athlete was removed from play.
- It is recommended that school administration notify the coach when an athlete has permission to return to play.

In the event a Transfer of Care form has not been previously filed with event management, school /NDHSAA designated AHCP medical providers shall not have their decision regarding an athlete's ability to return to competition overruled by any other AHCP.

NFHS suggested Concussion Management Guidelines for Health Care Professionals if the athlete has received a concussion of the day of competition.

- No athlete should Return to Play (RTP) or practice on the same day of a concussion.
 - Any athlete suspected of having a concussion should be evaluated by an AHCP that day.
 - Any athlete with a concussion should be medically cleared by an AHCP prior to resuming participation in practice or competition.
- After medical clearance, RTP should follow a step-wise protocol with provisions for delayed RTP based upon the return of any signs or symptoms.

WHEN IN DOUBT...SIT THEM OUT



North Dakota Hospital Association

Vision

The North Dakota Hospital Association will take an active leadership role in major Healthcare issues.

Mission

The North Dakota Hospital Association exists to advance the health status of persons served by the membership.

**Testimony on SB 2281
Senate Education Committee
January 24, 2011**

Good Morning Chairman Freborg and Members of the Senate Education Committee.

I am Jerry Jurena, President of the North Dakota Hospital Association. I am here in support of SB 2281; Concussion Management Program Requirements.

I believe SB 2281 provides sound principles that ensures a level of safety to all children involved in athletic activities.

I asked that you consider a do pass on SB 2281.

Jerry E. Jurena, President
North Dakota Hospital Association

#8 SB 2281

Senate Bill 2281

Mr. Chairman, members of the Senate Education Committee, I am John Vastag Director of Legislative Affairs for Sanford Health and Executive Director for HPC (Health Policy Consortium) whose members are Med Center One here in Bismarck, Trinity Health in Minot, Altru in Grand Forks and Sanford Health in Fargo.

As healthcare providers representing a significant population of student athletes in our service areas, we strongly support Senate Bill 2281. As today's student athletes have become bigger, faster and stronger, the intensity of the impacts they incur while participating in sporting activities has intensified as well.

Senate Bill 2281 is a key step in educating student athletes, parents, coaches and others of the symptoms and consequences of those impacts, particularly those that can cause concussions.

I have with me letters of support from a number of individuals who could not be present today. Mr. Chairman, with your permission and that of the committee, I would like to read for the record the names of those submitting letters and a brief summary of their comments.

Mr. Chairman, members of the committee, thank you for your time. I would be happy to answer any questions you may have.

John Vastag
Director of Legislative Affairs, Sanford Health
Executive Director HPC

#9 SB 2281



NATIONAL FOOTBALL LEAGUE

January 24, 2011

ROGER GOODELL
Commissioner

The Honorable Spencer D. Berry
State Senator
District 27
North Dakota
1136 55th Avenue South
Fargo, North Dakota 58104-6456

Dear Senator Berry:

The National Football League is pleased to support SB 2281, legislation regarding youth concussion management and prevention. The bill will help to raise awareness and protect youth athletes from the dangers of preventable brain injuries.

The NFL is playing a leading role in this important issue for the safety of our own players as well as athletes at all levels of sports. Our primary rule is this: the medical decisions of health care professionals take precedent over the playing decisions of coaches and players. Given our experience at the professional level, we believe a similar approach is appropriate and necessary when dealing with concussions in youth sports.

Concussions can occur in male and female athletes of any age and in any sport or recreational activity. In fact, the Centers for Disease Control and Prevention estimates that there may be as many as 3.8 million sports and recreational-related concussions each year in the United States.

In addition, medical researchers have determined that children and teenagers whose brains still are developing are more susceptible to concussions than adults, and they recover more slowly. Recognizing and responding to concussions when they first occur help to aid recovery and to prevent prolonged concussion symptoms, chronic impairment and even death.

That is the reason the NFL supports the passage of this bill and similar legislation in states throughout the country. SB 2281 contains three core principles: (1) concussion education for youth athletes, parents and coaches on an annual basis; (2) immediate removal of a youth athlete who is suspected of sustaining a concussion from play or practice; and (3) mandatory clearance of that youth athlete by an appropriate licensed health care professional before returning to play or practice.

#10 SB 2281

This legislation provides better protection for North Dakota's youth athletes by mandating a more formal, aggressive and uniform approach to the treatment of concussions. We applaud you as the sponsor of the bill and offer our assistance in aiding its passage.

Parents, coaches, teachers and school personnel will benefit from this measure. And, most importantly, our youth athletes will as well.

Sincerely,



ROGER GOODELL

#10 SB 2281

ROGER GOODELL
Commissioner

January 24, 2011

Dear Mr. Chairman and members of the Committee,

I applaud Senator Berry for introducing this important bill and I am pleased to enthusiastically support this vital legislation. We all recognize that a child's brain is his or her most precious resource and the key to a happy, successful future. We know that sports can provide myriad health- and fitness-related benefits, as well as important lessons of teamwork, commitment, discipline, goal-setting, and competition. And sports should be fun! However, we also know that playing sports increases the risk for incurring injuries including concussions. The incidence of concussions and other traumatic brain injuries in children playing and practicing sports is significant; but the full extent of the problem is as yet unknown and not fully appreciated.

Following a concussion, the young brain is particularly vulnerable to further, more severe, and possible permanent injury if it is stressed or hurt again before symptoms are resolved and the brain injury is healed. Just as it is our responsibility to teach proper technique, ensure correct fitting and utilization of protective gear, and have first aid capacity on hand for an emergency, it is also our responsibility to reduce further brain injury and catastrophic risk by eliminating the scenario that would permit premature return to play. We know that the consequences of a concussion can be significant and permanent if not promptly recognized and managed correctly. And the costs and effects can extend beyond the playing field or court to a young student's ability to perform in school, while closely touching the lives of his or her close friends and family.

The key features of this bill directly address these concerns through 1) Informing and educating coaches, youth athletes, and the athletes' parents or guardians of the nature and risks of concussion, including continuing to play after sustaining a concussion, 2) Immediately removing a youth athlete who is suspected of sustaining a concussion in a practice, game, or other training activity, and 3) Allowing a youth athlete who has been removed from any athletic activity for a suspected concussion to return *only* after the athlete is evaluated by a licensed health care provider trained and experienced in the evaluation and management of concussion.

This bill helps all children and adolescents who play sports – boys *and* girls in all sports. However, this bill appropriately places the focus on the *health* of children – not their sport. Importantly, this bill is directly in line with and responsive to the most recognized authoritative guidelines on concussion management. This bill is also consistent with the emerging accepted standard of care for concussion in youth sports as defined by similar laws already passed in nine other states. Passage of this bill will reduce the risk and incidence of severe brain injuries as well as liability and health care costs related to concussion and premature return to athletic activities. The health and safety of our youth will be improved. I urge you to please consider this bill carefully...the children and adolescents of North Dakota who play sports and *will* play sports need your leadership. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Bergeron".

Michael F. Bergeron, Ph.D., FACSM
Director, National Institute for Athletic Health & Performance
Professor, Department of Pediatrics, Sanford School of Medicine

#11 SB 2281

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE.

FOR THE RECORD, MY NAME IS PHIL HANSEN . I was fortunate to play football for NORTH DAKOTA STATE UNIVERSITY

and to continue playing 11 seasons with THE BUFFALO BILLS in THE NFL I retired in 2002. But I'll never forget my football roots started on the football fields of Oakes, ND

I AM HERE TODAY TO TESTIFY IN FAVOR OF SENATE BILL 2281 FROM TWO PERSPECTIVES.

FIRST OF ALL AS A former PLAYER AND PLAYER'S REPRESENTATIVE FOR THE BILLS. DURING THAT TIME, I WAS INVOLVED WITH

THE IMPLEMENTATION PROCESS to improve the quality of helmets. That can be seen today by NFL players wearing a variety of different namebrand helmets that they are able to choose from, all meeting or exceeding the standardized safety requirements. There was only one helmet (Riddell) that players could wear when I entered the NFL

SECONDLY, AS A HIGH SCHOOL OFFICIAL IN MINNESOTA AND NORTH DAKOTA,
DUE TO THE INCREASE OF THE SIZE, STRENGTH

AND SPEED OF TODAY'S STUDENT ATHLETES, THE INTENSITY OF THE IMPACTS THEY ABSORB HAS INTENSIFIED AS WELL.

EDUCATING OUR STUDENT ATHLETES, PARENTS AND COACHES ON THE POTENTIAL AND POSSIBLE LONG-TERM CONSEQUENCES

#12 SB 2281

OF THOSE INTENSIFIED IMPACTS IS IMPERATIVE TO THE HEALTH

OF THESE ATHLETES. This bill will start the education and awareness process so that a fellow athlete, a coach, or a parent may be able to recognize signs associated with a concussion, and get the affected student/athlete proper treatment before returning to the field or court.

THEREFORE, I ASK YOU TO JOIN ME IN SUPPORTING SENATE BILL

2281.

RESPECTFULLY SUBMITTED

PHIL HANSEN

#12 SB 2281

1/21/2011

Mr. John Vastag
Sanford Health

Dear Mr. Vastag,

It is my pleasure to provide my support for North Dakota senate bill 2281 relating to concussion management in public schools. As a practicing athletic administrator, I deem concussion management as a significant part of my responsibilities. A responsibility that I cannot and will not take lightly. Our school district has incorporated numerous strategies and procedures to provide our coaches and building administrators with the most current concussion information and assessment tools. Even with these measures set into practice we still find that there is a lack of a consistent approach to educating student athletes, their parents and our coaches. I view this bill as a catalyst that will facilitate the state wide changes needed in managing concussions.

If passed, Senate bill 2281 will also insure that other youth organizations will comply with the same concussion management standards that will be used in public schools. I see this as a consistent approach to providing a safe and educationally sound management of a concussion for students participating in activities.

Sincerely,



Ed Lockwood, Certified Master Athletic Administrator
Fargo Public School



#13 SB 2281

TESTIMONY ON SB 2281
EDUCATION COMMITTEE
January 24, 2011
Gwyn K Marback, Assistant Director
701-328-2295
Department of Public Instruction

Mr. Chairman and members of the committee:

My name is Gwyn Marback and I am the Assistant Director of the School Approval & Accreditation Unit for the Department of Public Instruction. I am here to speak in opposition of SB 2281 which relates to Concussion management program requirements.

The Department of Public Instruction is not in favor of Concussion management programs solely due to the huge administrative burden it would have on the Department and suggests further dialogue in regard to administration. We question whether Department of Public Instruction is the agency best suited to regulate this mandate. Historically, our department has not provided oversight for medical related policies as they relate to schools. Since this bill relates to athletic activities, it is our position that administration for such policies may better be served through the North Dakota High School Activities Association or the State Health Department Injury Prevention Unit.

Presently, schools and school districts are members of the North Dakota High School Activities Association. The North Dakota High School Activities Association

is a non-profit organization, which in part regulates interscholastic sports and fine arts activities in the state. Their services include administering a program of interscholastic activities, clinics, contests and festivals among member schools.

Schools and school districts develop school board policies which align to the North Dakota High School Activities Association requirements in relation to eligibility and sports physical requirements to name a few.

While the Department of Public Instruction supports assurance of the safety and wellbeing of children participating in athletics, we do not believe the Concussion management programs falls in the realm of duties and responsibilities of the Department of Public Instruction.

This concludes my testimony. I will remain for any questions you may have.

TESTIMONY OF STEVEN SPILDE
CEO, NORTH DAKOTA INSURANCE RESERVE FUND

To the
N.D. SENATE EDUCATION COMMITTEE
REGARDING SENATE BILL NO. 2281

January 24, 2011

Chairman Freborg and Members of the Senate Education Committee, my name is Steve Spilde – I am the Chief Executive Officer of the North Dakota Insurance Reserve Fund ("NDIRF"), a government self-insurance pool that provides liability and other risk coverage to nearly all political subdivisions in North Dakota. I appear today to present **Neutral** testimony regarding Senate Bill No. 2281.

The NDIRF takes no position on the merits of SB 2281 at this time but wishes to point out that Section 2 of the bill should be amended with regard to the chapter of the North Dakota Century Code (Chapter 32-12.1) designated to be the repository of this proposed new code section.

Chapter 32-12.1 NDCC is the "Tort Claims Act" for political subdivisions in North Dakota. It contains the parameters under which civil actions may be brought against political subdivisions, describes the various immunities and limitations that apply to civil actions against political subdivisions and specifies how civil judgments or settlements may be financed. It does not contemplate general statutory requirements such as that contained in Section of SB 2281.

Section 32-12.1-01 NDCC provides a statement of legislative intent, as follows: "This chapter creates additional powers and optional and alternative methods *for the single and specific purpose* (emphasis added) of enabling political subdivisions to pay and to compromise claims and judgments....."

We respectfully suggest that a more appropriate chapter or chapters of the North Dakota Century Code be found to accommodate Section 2 of SB 2281 and that SB 2281 be amended accordingly.

Thank you. I would be pleased to respond to any questions the Committee may have.

#15 SB 2281

SB 2281 floor

Senator Tim Flakoll

Madam Chairman in recent years we have gained a better understanding of the problems associated with concussions due to various causes – but during sporting events in particular. SB2281 focuses on the health of the child not on winning at all causes. It focuses on the protocol of what to do after an injury occurs to insure they do not return to play too quickly and risk double jeopardy. It provides for protections for an acceptable standard of care and is similar to law already passed in nine states.

Today's athletes are bigger, stronger and faster than in any previous generation. High School football linemen can approach or exceed 300 pounds and wide receivers would have speeds that in past generations made them time eligible for the US Olympic team. This size and speed can lead to a great amount of inertia being exerted when two athletes collide.

The amount of force that these athletes have to absorb is enormous and protective equipment cannot take away the full impact.

Some districts have strategies and procedures in place for their coaches with the most current information and assessment tools. But what is missing is a more consistent approach to educating student athletes, their parents and district coaches. SB 2281 provides a more consistent, safe and educationally sound management of a concussion for students participating in district sponsored activities.

Madam Chairman I feel that the medical decisions of a health care professional should take precedence over the playing decisions of coaches and players. With SB 2281 we are not only protecting the student athlete but also protect the coach from making decisions outside of their scope of

expertise and a decision sometimes clouded by the intensity and excitement of the game.

It is our responsibility to reduce further brain injury and catastrophic risk by controlling the premature return to play.

SB 2281 provides better protection for North Dakota's K-12 athletes by requiring more formal, aggressive and uniform approach to the treatment of concussions.

Madam Chairman and members of the House Education Committee I request your support for this bill.

Notes:

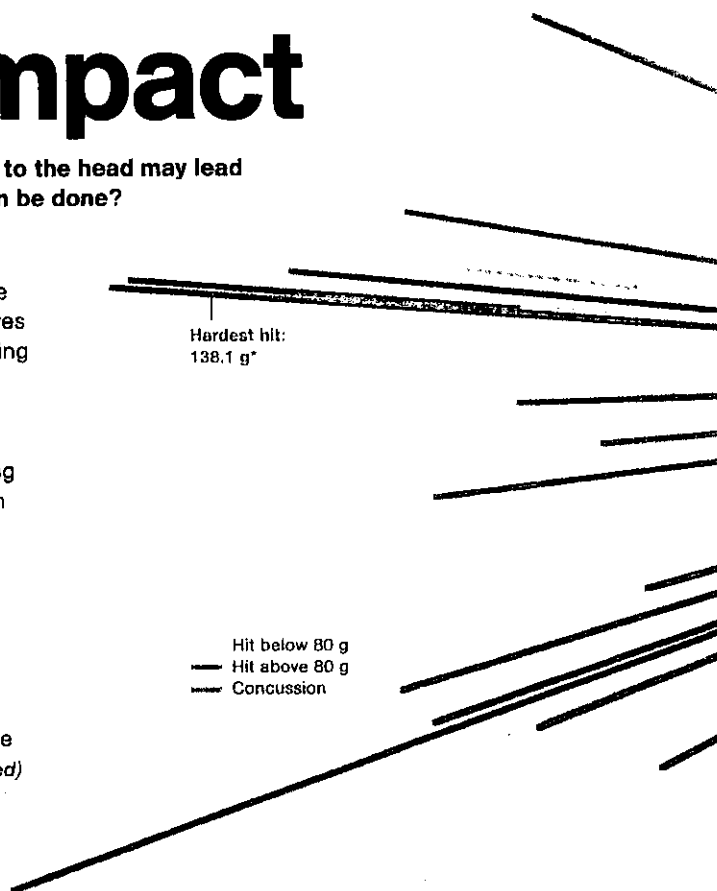
- The CDC estimates that there are 135,000 sports and recreation traumatic brain injuries, including concussions/year among children ages 5-18.
- Overall it is estimated that there are 3.8 million sports and recreation-related concussions each year in the US.
- ND Trainers Association has training videos related to concussions and there is not fee for their use.
- Medical research has shown that children and teenagers whose brains are still developing are more susceptible to concussions than adults and they recover more slowly. Recognizing and responding to concussions when they first occur help to aid recovery and to prevent prolonged concussion symptoms, chronic impairment and even death.
- Even professional football, in their thirst to win have realized the long term damage that a concussion can create and have taken aggressive steps to protect their players.

Lasting Impact

New research suggests that even small hits to the head may lead to brain deterioration over time. So what can be done?

FOOTBALL DRAWS as much attention lately for the knocks that players take as it does for their drives down the field. The emergence of research linking head collisions with behavioral and cognitive changes similar to those seen in Alzheimer's patients puts the pummeling in a new context. Whether ramming opponents head-on or butting helmets, athletes may face the risk of long-term brain injury from hits accumulated over time.

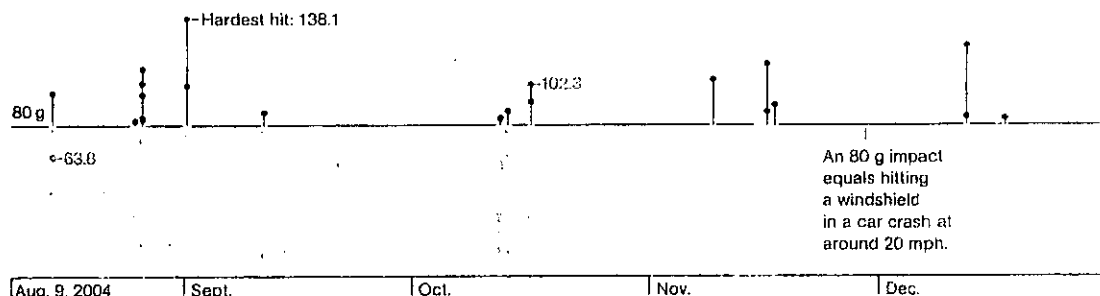
Brain degeneration from repeated blows to the head has been known in boxers since the 1920s as dementia pugilistica, or punch-drunk syndrome. "Football is the current poster child for that," says H. Hunt Batjer, a Northwestern University neurosurgeon who co-chairs the National Football League Head, Neck, and Spine Committee. "What's come to the fore (Continued)

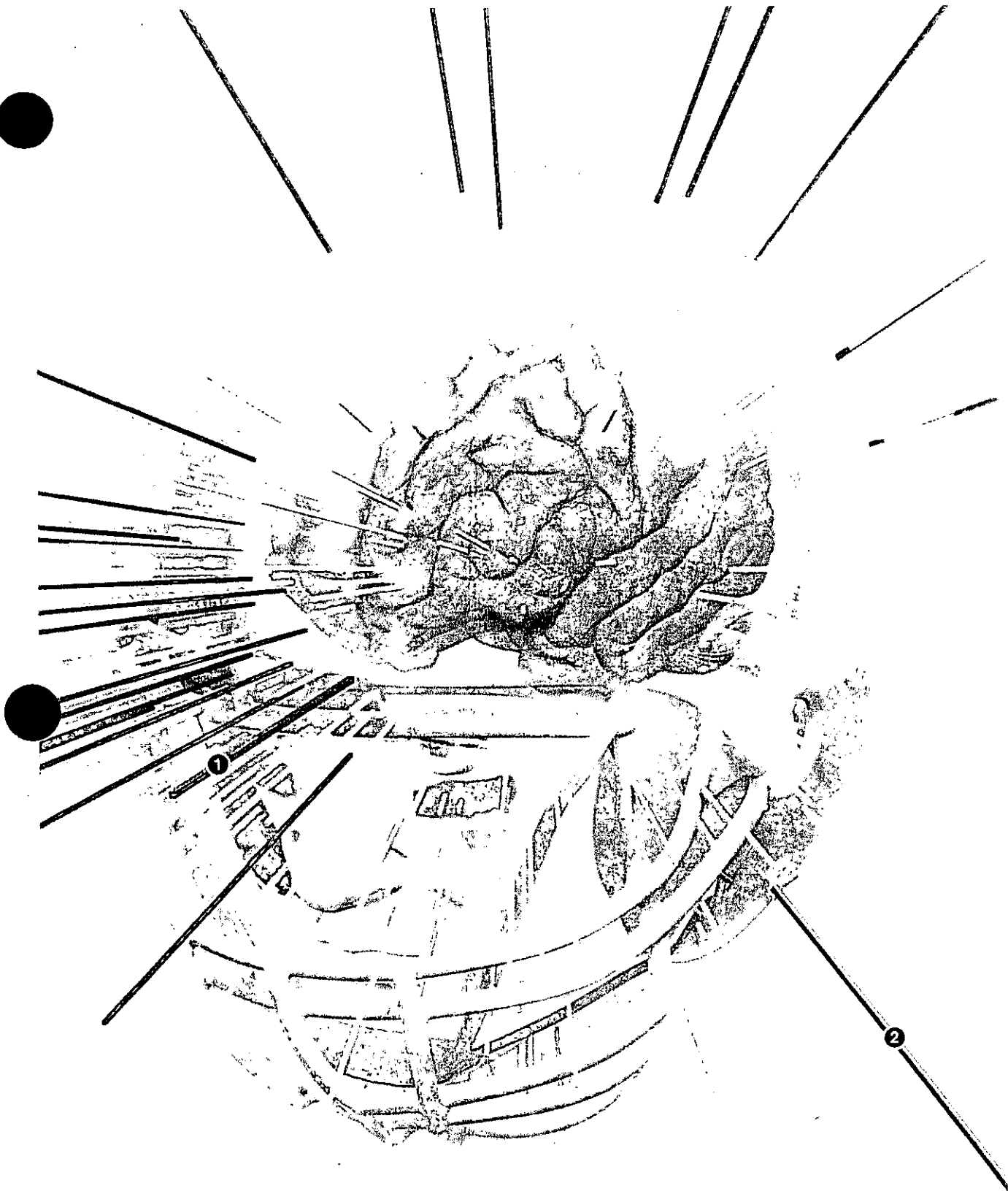


A Season of Collisions

One 21-year-old defensive end took 537 hits to the head during a season of football games and practices at the University of North Carolina. Of those, 417 had magnitudes of 10 g or more (shown). Two resulted in concussion.

When tracking head collisions, researchers focus on three variables: an impact's location and magnitude (right), and the frequency of hits (below). While magnitude matters, the biggest hits aren't necessarily the most damaging. Milder ones can add up to injury.





What is a concussion?

The brain is injured via shaking or hitting the skull, causing symptoms such as headache, dizziness, and difficulty concentrating.

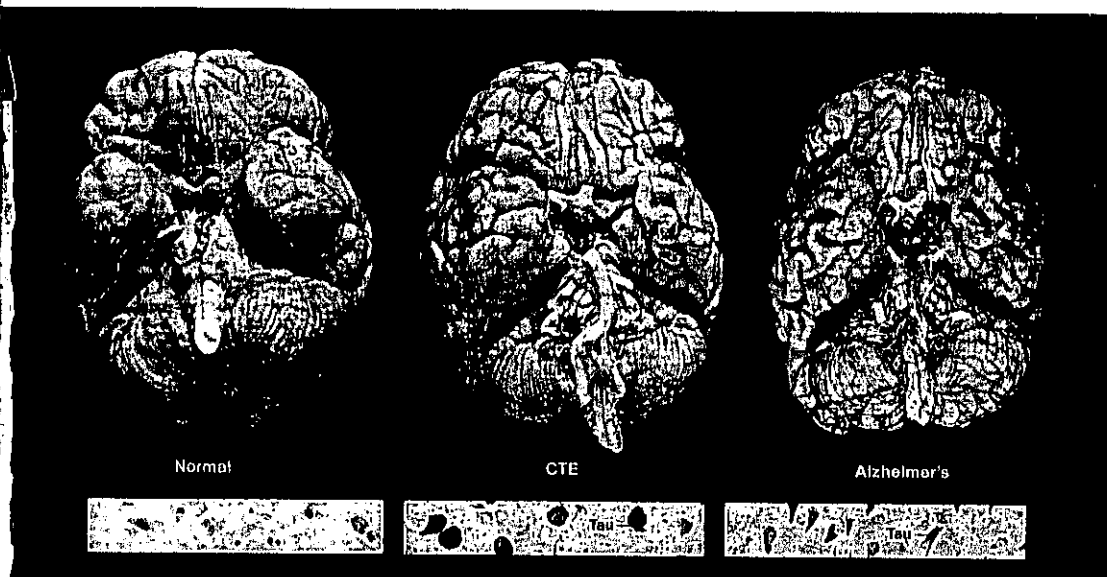
1

This player suffered a concussion at 63.8 g when an elbow cut across his helmet.

2

Nine weeks later he stumbled off the field after an opponent hit the side of his lowered head at 102.3 g.

THE BIG IDEA



A MICROSCOPIC SIGNATURE The key mark of chronic traumatic encephalopathy (CTE), a disorder found in some athletes who have sustained repetitive head blows, reveals itself in the details of stained slices of brain (above) rather than the organ's overall appearance. CTE's microscopic imprint bears a striking resemblance to Alzheimer's; both exhibit deposits of abnormal tau, a protein that normally helps support the structure of a nerve cell.

is the risk of repetitive minor hit injuries." Recent research indicates that small impacts can cause damage as much as big ones, widening the field of concern to young athletes, hockey players—and soldiers subject to head-rattling blasts.

At the University of North Carolina, where football players receive an average of 950 hits to the head each season, neuroscientist Kevin Guskiewicz and colleagues have spent six years analyzing impact data from video recordings and helmets equipped with accelerometers. He and Batjer note that there are plans to test similar technologies on various NFL teams starting this year. "Are you better with five higher-end impacts or 50 lower-end ones? We don't know," says Guskiewicz. "We're trying to see what the real issues are in the concussion puzzle."

Guskiewicz believes that on-field monitoring and education are paths to progress. Already the spotlight on football-related brain trauma has resulted in new NFL practices, state laws, and congressional hearings on ways to protect young athletes. Batjer adds that military experts working

on better helmets for soldiers are collaborating with the NFL. New helmet materials, and technology for on- and off-field testing, were the focus of a recent NFL conference in New York City.

On the medical side, there is hope for advanced brain-imaging techniques, experimental blood or spinal fluid tests, and even a genetic marker that would enable doctors to identify chronic traumatic encephalopathy (the same as punch-drunk syndrome, but not limited to boxers) early on. At the moment, the definitive mark of the disease—clumps of abnormal tau protein in the brain—can be seen only when the brain is sliced, stained, and studied under a microscope. CTE typically appears years after head traumas, and "we don't want to diagnose a disease after death," says Ann McKee, co-director of Boston University's Center for the Study of Traumatic Encephalopathy.

Guskiewicz envisions databases that track all the hits athletes take throughout their playing years to help explain neurologic changes later in life. But, he says, "it'll probably be my grandchildren who are analyzing that data." —Luna Shyr

PHOTOS: ANN C. MCKEE, BOSTON UNIVERSITY/BEDFORD VETERANS HOSPITAL (TOP); BENNET OMALLU, BRAIN INJURY RESEARCH INSTITUTE, WEST VIRGINIA UNIVERSITY (BOTTOM ROW)

Sanford
801 Broadway N
PO Box 2010
Fargo, ND 58122
(701) 234-2000
sanfordhealth.org

TESTIMONY ATTACHMENT 2

SANFORD™ HEALTH


Madam Chairman, members of the Senate Education Committee, I am John Vastag, Director of Legislative Affairs for Sanford Health and Executive Director for Health Policy Consortium (HPC) whose members are MedCenter One here in Bismarck; Trinity Health in Minot; Altru in Grand Forks; and Sanford Health in Fargo.

As healthcare providers representing a significant population of student athletes in our service areas, we strongly support Senate Bill 2281. As today's student athletes have become bigger, faster, and stronger; the intensity of the impacts they incur while participating in sporting activities has intensified as well.

Senate Bill 2281 is a key step in educating student athletes, parents, coaches, and others of the symptoms and consequences of those impacts, particularly those that can cause concussions.

I have with me today, letters of support from a number of individuals who could not be present today. Madam Chairman, with your permission and that of the

Our Mission:
Dedicated to the work of
health and healing



committee, I would like to read for the record the names of those submitting letters and a brief summary of their comments.

Madam Chairman, members of the committee, thank you for your time. I would be happy to answer any questions you may have.

John Vastag
Director of Legislative Affairs, Sanford Health
Executive Director, HPC




Madam Chairman and members of the Committee,

For the record, my name is Phil Hansen. I was fortunate to play football for North Dakota State University and to continue playing 11 seasons with the Buffalo Bills in the NFL. I retired in 2002. But I'll never forget my football roots started on the football fields of Oakes, ND.

I am here today to testify in favor of Senate Bill 2281 from two perspectives. First of all as a former player and player's representative for the Bills. During that time, I was involved with the implementation process to improve the quality of helmets. That can be seen today by NFL players wearing a variety of different name brand helmets that they are able to choose from, all meeting or exceeding the standardized safety requirements. There was only one helmet (Riddell) that players could wear when I entered the NFL.



Secondly, as a High School official in Minnesota and North Dakota. Due to the increase of the size, strength, and speed of today's student athletes, the intensity of the impacts they absorb has intensified as well. Educating our student athletes, parents, and coaches on the potential and possible long-term



consequences of those intensified impacts is imperative to the health of these athletes. This bill will start the education and awareness process so that a fellow athlete, a coach, or a parent may be able to recognize signs associated with a concussion, and get the affected student/athlete proper treatment before returning to the field or court.

Therefore, I ask you to join me in supporting Senate Bill 2281.

Respectfully submitted,
Phil Hansen





NATIONAL FOOTBALL LEAGUE

January 24, 2011

ROGER GOODELL
Commissioner

The Honorable Spencer D. Berry
State Senator
District 27
North Dakota
1136 55th Avenue South
Fargo, North Dakota 58104-6456

Dear Senator Berry:

The National Football League is pleased to support SB 2281, legislation regarding youth concussion management and prevention. The bill will help to raise awareness and protect youth athletes from the dangers of preventable brain injuries.

The NFL is playing a leading role in this important issue for the safety of our own players as well as athletes at all levels of sports. Our primary rule is this: the medical decisions of health care professionals take precedent over the playing decisions of coaches and players. Given our experience at the professional level, we believe a similar approach is appropriate and necessary when dealing with concussions in youth sports.

Concussions can occur in male and female athletes of any age and in any sport or recreational activity. In fact, the Centers for Disease Control and Prevention estimates that there may be as many as 3.8 million sports and recreational-related concussions each year in the United States.

In addition, medical researchers have determined that children and teenagers whose brains still are developing are more susceptible to concussions than adults, and they recover more slowly. Recognizing and responding to concussions when they first occur help to aid recovery and to prevent prolonged concussion symptoms, chronic impairment and even death.

That is the reason the NFL supports the passage of this bill and similar legislation in states throughout the country. SB 2281 contains three core principles: (1) concussion education for youth athletes, parents and coaches on an annual basis; (2) immediate removal of a youth athlete who is suspected of sustaining a concussion from play or practice; and (3) mandatory clearance of that youth athlete by an appropriate licensed health care professional before returning to play or practice.

This legislation provides better protection for North Dakota's youth athletes by mandating a more formal, aggressive and uniform approach to the treatment of concussions. We applaud you as the sponsor of the bill and offer our assistance in aiding its passage.

Parents, coaches, teachers and school personnel will benefit from this measure. And, most importantly, our youth athletes will as well.

Sincerely,

A handwritten signature in black ink, appearing to read "Roger Goodell", written in a cursive style.

ROGER GOODELL

ROGER GOODELL
Commissioner

January 24, 2011

Dear Mr. Chairman and members of the Committee,

I applaud Senator Berry for introducing this important bill and I am pleased to enthusiastically support this vital legislation. We all recognize that a child's brain is his or her most precious resource and the key to a happy, successful future. We know that sports can provide myriad health- and fitness-related benefits, as well as important lessons of teamwork, commitment, discipline, goal-setting, and competition. And sports should be fun! However, we also know that playing sports increases the risk for incurring injuries including concussions. The incidence of concussions and other traumatic brain injuries in children playing and practicing sports is significant; but the full extent of the problem is as yet unknown and not fully appreciated.

Following a concussion, the young brain is particularly vulnerable to further, more severe, and possible permanent injury if it is stressed or hurt again before symptoms are resolved and the brain injury is healed. Just as it is our responsibility to teach proper technique, ensure correct fitting and utilization of protective gear, and have first aid capacity on hand for an emergency, it is also our responsibility to reduce further brain injury and catastrophic risk by eliminating the scenario that would permit premature return to play. We know that the consequences of a concussion can be significant and permanent if not promptly recognized and managed correctly. And the costs and effects can extend beyond the playing field or court to a young student's ability to perform in school, while closely touching the lives of his or her close friends and family.

The key features of this bill directly address these concerns through 1) Informing and educating coaches, youth athletes, and the athletes' parents or guardians of the nature and risks of concussion, including continuing to play after sustaining a concussion, 2) Immediately removing a youth athlete who is suspected of sustaining a concussion in a practice, game, or other training activity, and 3) Allowing a youth athlete who has been removed from any athletic activity for a suspected concussion to return *only* after the athlete is evaluated by a licensed health care provider trained and experienced in the evaluation and management of concussion.

This bill helps all children and adolescents who play sports – boys *and* girls in all sports. However, this bill appropriately places the focus on the *health* of children – not their sport. Importantly, this bill is directly in line with and responsive to the most recognized authoritative guidelines on concussion management. This bill is also consistent with the emerging accepted standard of care for concussion in youth sports as defined by similar laws already passed in nine other states. Passage of this bill will reduce the risk and incidence of severe brain injuries as well as liability and health care costs related to concussion and premature return to athletic activities. The health and safety of our youth will be improved. I urge you to please consider this bill carefully...the children and adolescents of North Dakota who play sports and *will* play sports need your leadership. Thank you.

Sincerely,



Michael F. Bergeron, Ph.D., FACSM
Director, National Institute for Athletic Health & Performance
Professor, Department of Pediatrics, Sanford School of Medicine

2/7/2011

Mr. John Vastag
Sanford Health

Dear Mr. Vastag,

It is my pleasure to provide my support for North Dakota senate bill 2281 relating to concussion management in public schools. As a practicing athletic administrator, I deem concussion management as a significant part of my responsibilities. A responsibility that I cannot and will not take lightly. Our school district has incorporated numerous strategies and procedures to provide our coaches and building administrators with the most current concussion information and assessment tools. Even with these measures set into practice we still find that there is a lack of a consistent approach to educating student athletes, their parents and our coaches. I view this bill as a catalyst that will facilitate the state wide changes needed in managing concussions.

If passed, Senate bill 2281 will also insure that other youth organizations will comply with the same concussion management standards that will be used in public schools. I see this as a consistent approach to providing a safe and educationally sound management of a concussion for students participating in activities.

Sincerely,



Ed Lockwood, Certified Master Athletic Administrator
Fargo Public School

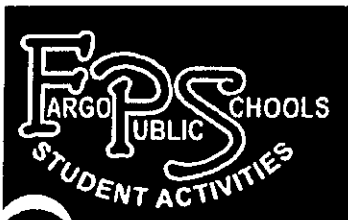


Activities Department

415 4th Street North
Fargo, ND 58102-4514
701.446.1000
Fax: 701.446.1200
www.fargo.k12.nd.us

Ed Lockwood, CMAA
Activities Director
701.446-1071
lockwed@Fargo.k12.nd.us

Joan Miller
Administrative Assistant
701.446.1065
Millejo@fargo.k12.nd.us



Rohr, Karen M.

From: Porter, Todd K.
Sent: Friday, April 15, 2011 1:21 PM
To: Rohr, Karen M.
Subject: RE: 2281

It does from an emergency standpoint. Depending on "management" we wouldn't do anything other than immediate care unless authorized by our medical director which would then include it in our scope of practice.

I am concerned that we aren't including the club level activities since these are where most kids at risk get injured.

Todd

From: Rohr, Karen M.
Sent: Friday, April 15, 2011 1:15 PM
To: Porter, Todd K.
Subject: FW: 2281

Todd,

Does the EMT scope of practice also include the management and treatment of concussions?

Karen

From: Flakoll, Tim
Sent: Friday, April 15, 2011 12:02 PM
To: Joel W Gilbertson; Luick, Larry E.; Heckaman, Joan M.; Rohr, Karen M.; Hanson, Lyle L.; Wall, John D.; Thomas, L. Anita; Jack McDonald
Subject: FW: 2281

From: Porter, Todd K.
Sent: Friday, April 15, 2011 8:28 AM
To: Flakoll, Tim
Subject: 2281

Senator:

The language does not limit EMS, as we are "certified" and our scope of practice includes evaluation of head injuries. It would be up to each individual's medical director to decide if they want the liability of performing these functions at a sporting event.

I am disappointed that the club level activities are not being included. During the presentation by the NFL we were told by the medical panel that the highest at risk group was younger kids. Having kids involved with YMCA and parks and rec activities, I can't imagine that the coach can't watch a 20 minute video and have a policy dealing with concussions.

Thanks for asking for my input.

Todd

(#3)

**CHAPTER 33-36-03
SCOPE OF PRACTICE FOR UNLICENSED EMERGENCY MEDICAL
SERVICES PERSONNEL**

Section

33-36-03-01

Definitions

33-36-03-02

Scopes of Practice

33-36-03-01. Definitions. Words defined in chapter 23-27 of the North Dakota Century Code have the same meaning in this chapter. For purposes of this chapter:

1. "Advanced first-aid ambulance attendant" means a person that has fulfilled the training, testing, and certification process for advanced first-aid ambulance attendant as required in chapter 33-36-01.
2. "Airway adjuncts" means oxygen and oxygen delivery equipment, oropharyngeal airways, nasopharyngeal airways, bag-valve-mask ventilator, or any other mechanical ventilator or respiratory care equipment.
3. "Cardiopulmonary resuscitation" means the American heart association health care provider standards or its equivalent which includes the skills adult one-person and two-person cardiopulmonary resuscitation, adult obstructed airway, child one-person and two-person cardiopulmonary resuscitation, child obstructed airway, infant cardiopulmonary resuscitation, infant obstructed airway, and automated external defibrillator.
4. "Driver" means a person that is registered with the department as an uncertified crew member of a basic life support ambulance.
5. "Emergency medical responder" means a person that has fulfilled the training, testing, and certification process for emergency medical responder as required in chapter 33-36-01.
6. "Primary care provider" means a qualified individual responsible for the care of the patient and supervision of all ambulance personnel while on the ambulance run.

History: Effective January 1, 2008; amended effective July 1, 2010.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

33-36-03-02. Scopes of practice. Each level of emergency medical services provider has a scope of practice that includes the scopes of practice of all subordinate emergency medical services providers. The hierarchy of emergency medical services providers is listed sequentially in this section.

1. Driver.

- a. **Scope.** The driver's minimum scope of practice primarily focuses on driving the basic life support ambulance and assisting the other emergency medical services personnel on the ambulance crew with nonpatient care issues. The driver's maximum scope of practice is limited to providing cardiopulmonary resuscitation without mechanical resuscitation equipment or airway adjuncts but including the use of an automated external defibrillator if the driver is certified in cardiopulmonary resuscitation. A major difference between the layperson and the driver is the "duty to act" as part of an organized emergency medical services response.
- b. **Curriculum.** The driver must hold a valid operator's license under chapter 39-06 of the North Dakota Century Code.
- c. **Occupational setting.** Drivers may only participate in the emergency medical services system as part of a crew of a basic life support ambulance service or quick response unit. At no time may a driver respond without other higher level emergency medical services personnel.
- d. **Medical oversight.** Because transport is an important part of the patient care continuum, a driver functions with physician oversight through protocol.
- e. **Supervision.** A driver is supervised by the primary care provider.

2. Emergency medical responder.

- a. **Scope.** The emergency medical responder core scope of practice includes simple, noninvasive skills focused on lifesaving interventions for critical patients based on assessment findings. The emergency medical responder renders onscene emergency care while awaiting additional emergency medical services response and may serve as part of the transporting crew, but not as the primary care provider. An emergency medical responder is not prepared to make decisions independently regarding the appropriate disposition of patients. An emergency medical responder must function with an emergency medical technician or higher level personnel during the transportation of patients. The emergency medical responder's scope includes all of the skills included in the driver's scope. A major difference between a driver and an emergency medical responder is the training and skills to provide immediate lifesaving interventions.
- b. **Curriculum.** The educational requirements include successful completion of a state-authorized emergency medical responder

training program and continued educational requirements as defined in chapter 33-36-01.

- c. **Scope enhancements.** Emergency medical responders may provide enhanced treatments beyond the core scope if they have successfully completed training as defined in section 33-36-01-04 and have authorization to perform those skills from their medical director.
 - d. **Skills.** Specific skills for the emergency medical responder are defined by the department. Local medical directors may limit the specific skills that an emergency medical responder may provide and they may not exceed those specific skills defined by the department.
 - e. **Occupational setting.** Emergency medical responders may participate in the emergency medical services system as a sole responder in a quick response unit or as part of the crew of a basic life support ambulance service but not as the primary care provider. Emergency medical responders may also provide services to a private company or organization as part of a response team that is not offered to the public.
 - f. **Medical oversight.** An emergency medical responder provides medical care with physician oversight. A physician credentials the emergency medical responder and establishes patient care standards through protocol.
 - g. **Supervision.** An emergency medical responder may be the highest trained person on a quick response unit and may supervise other emergency medical responders or drivers. As part of a basic life support ambulance crew, an emergency medical responder is supervised by the primary care provider.
3. **Advanced first-aid ambulance attendant.**
- a. **Scope.** The advanced first-aid ambulance attendant's scope of practice is equal to the emergency medical technician's as defined in section 33-36-04-02.1. The advanced first-aid ambulance attendant's scope includes the skills in the first responder's scope and the driver's scope. The major difference between an advanced first-aid ambulance attendant and first responder is the knowledge and skills necessary to provide medical transportation of emergency patients.
 - b. **Curriculum.** The curriculum for advanced first-aid ambulance attendant is no longer supported. Therefore, no new advanced first-aid ambulance attendants can be trained. Continued educational requirements are defined in chapter 33-36-01.

- c. Scope enhancements. Advanced first-aid ambulance attendants may provide enhanced treatments beyond the core scope if they have completed training as defined in section 33-36-01-04 and have the authorization to perform those skills from their medical director.
- d. Skills. Specific skills for the advanced first-aid ambulance attendant are defined by the department. Local medical directors may limit the specific skills that an advanced first-aid ambulance attendant may provide and they may not exceed those specific skills defined by the department.
- e. Occupational setting. Advanced first-aid ambulance attendants may participate in the emergency medical services system as a sole responder in a quick response unit or as a primary care provider on a basic life support ambulance service. Advanced first-aid ambulance attendants may also provide services to a private company or organization as part of a response team that is not offered to the public.
- f. Medical oversight. An advanced first-aid ambulance attendant provides medical care with physician oversight. A physician credentials the advanced first-aid ambulance attendant and establishes patient care standards through protocol.
- g. Supervision. An advanced first-aid ambulance attendant may be the primary care provider on a quick response unit or basic life support ambulance and may supervise other advanced first-aid ambulance attendants, first responders, or drivers.

History: Effective January 1, 2008; amended effective July 1, 2010.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3



kmrohr

ARTICLE 33-36

EMERGENCY MEDICAL SERVICES PERSONNEL

Chapter	
33-36-01	Emergency Medical Services Personnel Training, Testing, Certification, and Licensure
33-36-02	Licensing of Emergency Medical Services Training Institutions
33-36-03	Scope of Practice for Unlicensed Emergency Medical Services Personnel
33-36-04	Scope of Practice for Emergency Medical Services Professionals

CHAPTER 33-36-01 EMERGENCY MEDICAL SERVICES PERSONNEL TRAINING, TESTING, CERTIFICATION, AND LICENSURE

Section	
33-36-01-01	Definitions
33-36-01-02	Emergency Medical Services Training Courses
33-36-01-03	Training, Testing, Certification, and Licensure Standards for Primary Certification Courses
33-36-01-03.1	Limited Temporary Certification or Licensure of Emergency Medical Services Training Course Graduates
33-36-01-03.2	Continuing Education
33-36-01-04	Training, Testing, and Certification Standards for Certification Scope Enhancement Courses
33-36-01-04.1	Training, Testing, and Certification Standards for Certification Refresher Courses
33-36-01-05	Denial, Suspension, or Revocation of Certification or Licensure
33-36-01-05.1	Criminal History Background Checks
33-36-01-06	Revocation Process
33-36-01-07	Hearing
33-36-01-08	Waivers

33-36-01-01. Definitions. Words defined in North Dakota Century Code chapter 23-27 have the same meaning in this chapter.

1. "Accrediting agency" means the commission on accreditation on allied health education programs or its equivalent.
2. "Cardiopulmonary resuscitation", initial and refresher, means the American heart association health care provider standards or its equivalent which includes the following skills: adult one-person and two-person cardiopulmonary resuscitation, adult obstructed airway, child one-person and two-person cardiopulmonary resuscitation, child obstructed airway, infant cardiopulmonary resuscitation, infant obstructed airway, and automated external defibrillator.

3. "Certification scope enhancement programs" means those certification programs which add additional skills to or refresh existing skills obtained from the primary certification programs.
4. "Continuing education coordinator" means an individual who is licensed to conduct limited courses including continuing education courses, refresher courses, and scope enhancement courses.
5. "Department" means the state department of health.
6. "Emergency medical services instructor" means an individual who is licensed to conduct the full scope of courses including continuing education courses, refresher courses, and scope enhancement courses, as well as initial primary education courses that include emergency medical responder, emergency medical technician, emergency medical technician-intermediate/85, advanced emergency medical technician, emergency medical technician-intermediate/99, and paramedic.
7. "Equivalent" means training of equal or greater value which accomplishes the same results as determined by the department.
8. "Field internship preceptor" means a qualified person designated by an emergency medical services instructor to supervise a student during field internship training.
9. "National registry" means the national registry of emergency medical technicians located in Columbus, Ohio.
10. "On call" means that an individual is expected to be available for emergency response when called by radio or pager and report after notification.
11. "Prehospital emergency medical services personnel" are those persons certified or licensed under the programs defined in this chapter.
12. "Primary certification programs" means those certification programs which integrate a broad base of skills necessary to perform within a level of the emergency medical services system as determined by the department.

History: Effective April 1, 1992; amended effective August 1, 2003; January 1, 2006; January 1, 2008; July 1, 2010.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

33-36-01-02. Emergency medical services training courses. The department shall establish training, testing, and certification requirements for the following emergency medical services courses:

1. Primary certification courses:
 - a. Emergency medical responder;
 - b. Emergency medical technician;
 - c. Emergency medical technician-intermediate/85;
 - d. Emergency medical technician-intermediate/99;
 - e. Advanced emergency medical technician;
 - f. Advanced first-aid ambulance attendant;
 - g. Emergency vehicle operations;
 - h. Emergency medical dispatch; and
 - i. Automobile extrication.
2. Certification scope enhancement courses:
 - a. Intravenous maintenance;
 - b. Automobile extrication instructor;
 - c. Emergency medical services instructor;
 - d. Epinephrine administration;
 - e. Dextrose administration;
 - f. Bronchodilator/nebulizer administration;
 - g. Limited advanced airway insertion;
 - h. Emergency vehicle operations instructor; and
 - i. Continuing education coordinator.
3. Certification refresher courses:
 - a. Emergency medical responder-refresher;
 - b. Emergency medical technician-basic refresher;
 - c. Emergency medical technician-intermediate/85 refresher;

- d. Emergency medical technician-intermediate/99 refresher;
- e. Advanced emergency medical technician refresher; and
- f. Paramedic refresher.

History: Effective April 1, 1992; amended effective October 1, 1992; August 1, 1994; August 1, 2003; August 1, 2004; January 1, 2006; January 1, 2008; July 1, 2010.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

33-36-01-03. Training, testing, certification, and licensure standards for primary certification courses. The department shall authorize the conduct of courses, the testing of students, and the certification or licensure of personnel when application has been made on forms requested from and provided by the department prior to conducting the course and in the manner specified by the department contingent on the following requirements:

1. Emergency medical responder:
 - a. Curriculum. The course curriculum must be that issued by the United States department of transportation, national highway traffic safety administration, in the edition specified by the department.
 - b. Textbooks. The department shall approve textbooks.
 - c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor and must be currently certified as an emergency medical responder or its equivalent.
 - d. An emergency medical responder student may practice all of the skills defined in the core scope of practice for emergency medical responder while in the classroom and during field internship while under direct supervision of an instructor or field internship preceptor and if registered with the department as an emergency medical responder student.
 - e. Testing. The student must correctly answer at least seventy percent of the questions on a written examination specified by the department or the national registry cognitive knowledge examination and pass all stations of a practical examination conducted by the course coordinator. The practical examination must consist of no less than one medical, one cardiopulmonary resuscitation, and one trauma station.
 - f. Initial certification. The department shall issue initial certification to persons who meet the physical requirements described in

the functional job analysis for emergency medical responder as published by the national highway traffic safety administration and are over the age of sixteen who have completed an authorized course and passed the testing process, or are certified as an emergency medical responder by the national registry. Persons passing the testing process between January first and June thirtieth shall be certified until June thirtieth of the second year, or ninety days past their national registry expiration date if they are nationally registered. Persons passing the testing process between July first and December thirty-first shall be certified until June thirtieth of the third year, or ninety days past their national registry expiration date if they are nationally registered.

9. Recertification. The department shall recertify for a two-year period expiring on June thirtieth, or ninety days past their national registry expiration date if they are nationally registered, to those persons that meet the physical requirements described in the functional job analysis for emergency medical responder as published by the national highway traffic safety administration and who have met one of the following requirements:

- (1) Completion of an approved North Dakota emergency medical responder refresher course.
- (2) Completion of a twenty-four-hour emergency medical technician refresher course.

2. Emergency medical technician:

- a. Curriculum. The course curriculum must be that issued by the United States department of transportation, national highway traffic safety administration, in the edition specified by the department.
- b. Textbooks. The department shall approve textbooks.
- c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor and must be currently licensed as an emergency medical technician or its equivalent.
- d. Course instructors. The primary course instructor must be licensed by the department as an emergency medical services instructor and must be currently licensed as an emergency medical technician or its equivalent. The primary instructor must teach at least fifty percent of the lecture portion of the course. Secondary instructors must be currently licensed as an emergency medical technician or its equivalent.

- e. An emergency medical technician student may practice all of the skills defined in the core scope of practice for emergency medical technician while in the classroom and during field internship while under direct supervision of an instructor or the field internship preceptor and if registered with the department as an emergency medical technician student.
- f. Testing. Students must pass the national registry cognitive knowledge examination and a practical examination specified by the department which meets the national registry's standards or its equivalent in order to be eligible for licensure. The content of the practical examination must be determined by the department, and the department shall establish policies regarding retesting of failed written and practical examinations.
- g. Emergency medical technician initial licensure. The department shall issue initial licensure as an emergency medical technician to persons that meet the physical requirements described in the functional job analysis for emergency medical technician as published by the national highway traffic safety administration and are over the age of sixteen who have completed an authorized course and passed the testing process or those who have requested reciprocity from another state with equivalent training. Persons passing the testing process between January first and June thirtieth shall be licensed until June thirtieth of the second year. Persons passing the testing process between July first and December thirty-first shall be licensed until June thirtieth of the third year.
- h. Relicensure of emergency medical technicians. The department shall relicense for a two-year period expiring June thirtieth those persons that meet the physical requirements described in the functional job analysis for emergency medical technician as published by the national highway traffic safety administration and who have met the following requirements:
 - (1) Completion of a twenty-four hour emergency medical technician-basic refresher course which includes a cardiopulmonary resuscitation health care provider refresher, answering correctly at least seventy percent of the questions on a written examination specified by the department and passing a local practical examination meeting the department's requirements; and
 - (2) Completion of forty-eight hours of continuing education as approved by the department or the national registry; or
 - (3) If currently licensed as an emergency medical technician, successful completion of the practical examination for

emergency medical technician as established by the department. The practical examination must be administered by a licensed emergency medical services training institution in accordance with section 33-36-02-10 or by the department.

3. Emergency medical technician-intermediate/85:

- a. Student prerequisite certification. Students must be licensed as an emergency medical technician or its equivalent prior to testing.
- b. Curriculum. The course curriculum must be that issued by the United States department of transportation, national highway traffic safety administration, in the edition specified by the department.
- c. Textbooks. The department shall approve textbooks.
- d. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor and must be currently licensed as an emergency medical technician-intermediate/85 or its equivalent.
- e. Course instructors. The primary course instructor must be licensed by the department as an emergency medical services instructor and must be currently licensed as an emergency medical technician-intermediate/85 or its equivalent. The primary instructor must teach at least fifty percent of the lecture portion of the course. Secondary instructors must be currently licensed as an emergency medical technician-intermediate/85 or its equivalent.
- f. An emergency medical technician-intermediate/85 student may practice all of the skills defined in the core scope of practice for emergency medical technician-intermediate/85 while in the classroom and during field internship while under direct supervision of an instructor or field internship preceptor and if registered with the department as an emergency medical technician-intermediate/85 student.
- g. Testing. Students must pass the cognitive knowledge and practical examinations as provided by the national registry and approved by the department in order to be eligible for licensure.
- h. Emergency medical technician-intermediate/85 initial licensure. A person eighteen years of age or older that meets the physical requirements described in the functional job analysis for emergency medical technician as published by the national highway traffic safety administration and who has completed an authorized course and passed the testing process shall obtain certification from the national registry. Persons obtaining national registry certification and in compliance with chapter 50-03-03 will

be licensed by the department expiring ninety days after their national registry expiration date.

- i. Relicensure of emergency medical technician-intermediate/85. Emergency medical technician-intermediate/85 must be recertified by the national registry recertification policies and meet the physical requirements described in the functional job analysis for emergency medical technician as published by the national highway traffic safety administration. Persons recertified by the national registry and in compliance with chapter 50-03-03 will be relicensed by the department for a two-year period expiring ninety days after their national registry expiration date.
- j. Transition to new licensure level. When the national registry discontinues certifying personnel at the emergency medical technician-intermediate/85 level, personnel currently licensed as an emergency medical technician-intermediate/85 must transition to a new licensure level. To remain licensed as an emergency medical services provider, each person must do one of the following options:
 - (1) Complete a state-authorized transition course for emergency medical technician-intermediate/85 to advanced emergency medical technician and license as an advanced emergency medical technician as described in subsection 4.
 - (2) Complete a state-authorized transition course for emergency medical technician-intermediate/85 to advanced emergency medical technician, as well as completing all of the certification requirements of the national registry for advanced emergency medical technician and license as an advanced emergency medical technician as described in subsection 4.
 - (3) Complete the national registry requirements for emergency medical technician and license as an emergency medical technician as described in subsection 2.

4. Advanced emergency medical technician:

- a. Student prerequisite certification. Students must be licensed as an emergency medical technician or its equivalent prior to testing.
- b. Curriculum. The course curriculum must be that issued by the United States department of transportation, national highway traffic safety administration, in the edition specified by the department.
- c. Textbooks. The department shall approve textbooks.

- d. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor and must be currently licensed as an advanced emergency medical technician or its equivalent.
- e. Course instructors. The primary course instructor must be licensed by the department as an emergency medical services instructor and must be currently licensed as an advanced emergency medical technician or its equivalent. The primary instructor must teach at least fifty percent of the lecture portion of the course. Secondary instructors must be currently licensed as an advanced emergency medical technician or its equivalent.
- f. An advanced emergency medical technician student may practice all of the skills defined in the core scope of practice for advanced emergency medical technician while in the classroom and during field internship while under direct supervision of an instructor or field internship preceptor and if registered with the department as an advanced emergency medical technician student.
- g. Testing. Students must pass the cognitive knowledge and practical examinations as provided by the national registry and approved by the department in order to be eligible for licensure.
- h. Advanced emergency medical technician initial licensure. Except as otherwise provided under subdivision j of subsection 3, a person eighteen years of age or older that meets the physical requirements described in the functional job analysis for emergency medical technician as published by the national highway traffic safety administration and who has completed an authorized course and passed the testing process shall obtain certification from the national registry. Persons obtaining national registry certification and in compliance with chapter 50-03-03 will be licensed by the department expiring ninety days after their national registry expiration date.
- i. Relicensure of advanced emergency medical technician. Except as otherwise provided under subdivision j of subsection 3, an advanced emergency medical technician must be recertified by the national registry recertification policies and meet the physical requirements described in the functional job analysis for emergency medical technician as published by the national highway traffic safety administration. Persons recertified by the national registry and in compliance with chapter 50-03-03 will be relicensed by the department for a two-year period expiring ninety days after their national registry expiration date.
- j. Transitioning from emergency medical technician-intermediate/85. Notwithstanding subdivisions h and i of subsection 3, an

emergency medical technician-intermediate/85 licensee may be licensed or relicensed as an advanced emergency medical technician without obtaining national registry certification if the requirements in subsection 3 have been met as well as maintaining compliance with chapter 50-03-03.

5. Emergency medical technician-intermediate/99:

- a. Student prerequisite certification or license. A student must be licensed as an emergency medical technician or its equivalent prior to testing.
- b. Curriculum. The course curriculum shall be that issued by the United States department of transportation, national highway traffic safety administration, in the addition specified by the department.
- c. Textbooks. The department shall approve textbooks.
- d. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor and must be currently licensed as an emergency medical technician-intermediate/99 or its equivalent.
- e. Course instructors. The primary course instructor must be licensed by the department as an emergency medical services instructor and must be currently licensed as an emergency medical technician-intermediate/99 or its equivalent. The primary instructor must teach at least fifty percent of the lecture portion of the course. Secondary instructors must be currently licensed as an emergency medical technician-intermediate/99 or its equivalent.
- f. An emergency medical technician-intermediate/99 student may practice all of the skills defined in the core scope of practice for emergency medical technician-intermediate/99 while in the classroom and during field internship while under direct supervision of an instructor or field internship preceptor and if registered with the department as an emergency medical technician-intermediate/99 student.
- g. Testing. Students must pass the cognitive knowledge and practical examinations as provided by the national registry and approved by the department in order to be eligible for licensure.
- h. Emergency medical technician-intermediate/99 initial licensure. A person eighteen years of age or older that meets the physical requirements described in the functional job analysis for emergency medical technician as published by the national highway traffic safety administration and who has completed an authorized course and passed the testing process shall obtain

certification from the national registry. Persons obtaining national registry certification and in compliance with chapter 50-03-03 will be licensed by the department expiring ninety days after their national registry expiration date.

- i. Relicensure of emergency medical technician-intermediate/99. An emergency medical technician-intermediate/99 must be recertified by the national registry recertification policies and meet the physical requirements described in the functional job analysis for emergency medical technician as published by the national highway traffic safety administration. Persons recertified by the national registry and in compliance with chapter 50-03-03 will be relicensed by the department for a two-year period expiring ninety days after their national registry expiration date.

6. Paramedic:

- a. Student prerequisite certification. Students must be certified or licensed as an emergency medical technician or its equivalent prior to testing.
- b. Curriculum. The course curriculum must be that issued by the United States department of transportation, national highway traffic safety administration, in the edition specified by the department.
- c. Textbooks. The department shall approve textbooks.
- d. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor and must be currently licensed as a paramedic or its equivalent. Course coordinators that are not affiliated with a licensed training institution must have their paramedic course accredited by an accrediting agency by January 1, 2012.
- e. Course instructors. The primary course instructor must be licensed by the department as an emergency medical services instructor and must be currently licensed as a paramedic or its equivalent. The primary instructor must teach at least fifty percent of the lecture portion of the course. Secondary instructors must be currently licensed as a paramedic or its equivalent.
- f. A paramedic student may practice all of the skills defined in the core scope of practice for paramedic while in the classroom and during field internship while under direct supervision of an instructor or field internship preceptor and if registered with the department as a paramedic student.

- g. Field internship. Courses must provide field internship experience based on the curriculum requirements for patient contacts with a paramedic preceptor.
 - h. Testing. A student must pass the cognitive knowledge and practical examinations as provided by the national registry and approved by the department in order to be eligible for licensure.
 - i. Paramedic initial licensure. A person eighteen years of age or older that meets the physical requirements described in the functional job analysis for emergency medical technician as published by the national highway traffic safety administration and who has completed an authorized course and passed the testing process shall obtain certification from the national registry. Persons obtaining national registry certification and in compliance with chapter 50-03-03 will be licensed by the department expiring ninety days after their national registry expiration date.
 - j. Relicensure of paramedic. A paramedic must be recertified by the national registry recertification policies and meet the physical requirements described in the functional job analysis for emergency medical technician as published by the national highway traffic safety administration. Persons recertified by the national registry and in compliance with chapter 50-03-03 will be relicensed by the department for a two-year period expiring ninety days after their national registry expiration date.
7. Advanced first aid ambulance attendant:
- a. Advanced first aid ambulance attendant initial certification. The department shall issue initial certification to persons currently certified in American national red cross advanced first aid and who demonstrate a minimum of two years experience with a North Dakota licensed ambulance service as evidenced by North Dakota ambulance service license application personnel rosters.
 - b. Recertification of advanced first aid ambulance attendants. The department shall recertify for a three-year period, expiring on June thirtieth, those persons who meet the physical requirements described in the functional job analysis for emergency medical technician as published by the national highway traffic safety administration and have completed a twenty-four-hour emergency medical technician-basic refresher course, which includes a cardiopulmonary resuscitation refresher, answering correctly at least seventy percent of the questions on a written examination specified by the department and passing a local practical examination meeting the department's requirements.
8. Emergency vehicle operations:

- a. Curriculum. The course curriculum must be that issued by the United States department of transportation, national highway traffic safety administration, in the edition specified by the department.
 - b. Course coordinator. The course coordinator must be certified by the department as an emergency vehicle operation instructor.
 - c. Testing. The students must correctly answer at least seventy percent of the questions on a written examination and pass a practical examination specified by the department.
 - d. Certification. The department shall issue a certification to persons who have completed an authorized course and passed the testing process. Persons passing the testing process between January first and June thirtieth must be certified until June thirtieth of the second year. Persons passing the testing process between July first and December thirty-first must be certified until June thirtieth of the third year.
9. Emergency medical dispatch:
- a. Curriculum. The course curriculum must be that issued by the United States department of transportation, national highway traffic safety administration, in the edition specified by the department.
 - b. Course coordinator. The course coordinator must be approved by the department as an emergency medical dispatch instructor.
 - c. Testing. The student must correctly answer at least seventy percent of the questions on a written examination specified by the department.
 - d. Certification. The department shall issue a certification to persons who have completed an authorized course and passed the testing process. Persons passing the testing process between January first and June thirtieth must be certified until June thirtieth of the second year. Persons passing the testing process between July first and December thirty-first must be certified until June thirtieth of the third year.
10. Automobile extrication:
- a. Curriculum. The course curriculum must be approved by the department.
 - b. Course coordinator. The course coordinator must be certified by the department as an automobile extrication instructor.

- c. Testing. The student must correctly answer at least seventy percent of the questions on a written examination specified by the department.
- d. Certification. The department shall issue a certification to persons who have completed an authorized course and passed the testing process. Persons passing the testing process between January first and June thirtieth must be certified until June thirtieth of the second year. Persons passing the testing process between July first and December thirty-first must be certified until June thirtieth of the third year.

History: Effective April 1, 1992; amended effective August 1, 1994; August 1, 2003; January 1, 2006; January 1, 2008; July 1, 2010.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

33-36-01-03.1. Limited temporary certification or licensure of emergency medical services training course graduates.

1. An individual that has graduated from a department-authorized emergency medical services training course as an emergency medical technician, emergency medical technician - intermediate, or paramedic and has submitted a completed application signed by a physician and an official transcript verifying program completion may be issued a limited certification or license one time. A limited temporary certification or licensure allows the graduate to be employed while awaiting results of the graduate's national registry examination. The limited temporary certification or licensure expires ninety days after the date of issue.
2. The graduate must practice under the direct supervision of a person certified or licensed at an equal or greater level. Direct supervision means close physical and visual proximity. The graduate may not be the primary care provider.

History: Effective January 1, 2006; amended effective January 1, 2008.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

33-36-01-03.2. Continuing education. Continuing education means ongoing professional education that is based on current emergency medical services textbooks, emergency medical services educational principles, or topics that expand the professional knowledge to stay up to date with emergency medical services standards. An entity or individual that offers continuing education must:

1. Have the course approved as continuing education by:
 - a. The department;

- b. An emergency medical services training institution licensed in accordance with chapter 33-36-02;
 - c. The continuing education coordinating board for emergency medical services located in Dallas, Texas;
 - d. A licensed continuing education coordinator in consultation with a licensed physician;
 - e. A licensed instructor in consultation with a licensed physician; or
 - f. A licensed physician.
- 2. Maintain the continuing education course records for at least two years.
 - 3. Issue certificates to attendees that list the title of the course, date, number of hours awarded rounded to the nearest half hour, location, name of instructor, and the name of the person or entity that approved the course.

History: Effective July 1, 2010.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

33-36-01-04. Training, testing, and certification standards for certification scope enhancement courses. The department shall authorize the conduct of courses, the testing of students, and the certification or licensure of personnel when application has been made on forms provided prior to conducting the course and in the manner specified by the department contingent on the following requirements:

- 1. Intravenous therapy maintenance:
 - a. Student prerequisite certification. A student must be licensed as an emergency medical technician or its equivalent.
 - b. Curriculum. The course curriculum must be that issued by the department entitled "EMT IV Maintenance Module".
 - c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor or continuing education coordinator, and currently certified in intravenous therapy maintenance, or its equivalent.
 - d. Testing. The student must correctly answer at least seventy percent of the questions on a written examination specified by the department and pass all portions of a practical examination specified by the department. The practical examination must

consist of performing intravenous maintenance skills on a mannequin.

- e. Certification. The department shall issue a certification to persons who have completed an authorized course and passed the testing process. Persons passing the testing process between January first and June thirtieth shall be certified until June thirtieth of the second year. Persons passing the testing process between July first and December thirty-first shall be certified until June thirtieth of the third year.

2. Automobile extrication instructor:

- a. Curriculum. The course curriculum must be approved by the department.
- b. Student prerequisite. The candidate for this course must be currently certified in automobile extrication with at least two years of certified automobile extrication experience.
- c. Course coordinator. The department shall designate the course coordinator.
- d. Testing. The student must correctly answer at least seventy percent of the questions on a written examination specified by the department.
- e. Initial certification. The department shall issue initial certification to persons who have completed an authorized course and passed the testing process. Persons passing the testing process between January first and June thirtieth shall be certified until June thirtieth of the second year. Persons passing the testing process between July first and December thirty-first shall be certified until June thirtieth of the third year.
- f. Recertification. The department shall recertify for a two-year period those persons who have satisfactorily conducted an automobile extrication course or have audited eight hours of an automobile extrication instructor course before the expiration date of their certification.

3. Emergency medical services instructor:

- a. Student prerequisite. An individual must be at least eighteen years of age and certified or licensed for at least two years as a patient care provider at the level the individual will instruct at, in order to be licensed.

- b. Curriculum. The course curriculum must be that issued by the United States department of transportation, national highway traffic safety administration, in the edition specified by the department or its equivalent.
 - c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor.
 - d. Initial licensure. The department shall issue initial licensure to persons who have completed an authorized course. Persons completing the course between January first and June thirtieth shall be licensed until June thirtieth of the second year. Persons completing the course between July first and December thirty-first shall be licensed until June thirtieth of the third year.
 - e. Relicensure. The department shall relicense for a two-year period those persons who have participated in at least one initial training course as a course coordinator or primary instructor, and:
 - (1) Completed the department's eight-hour relicensure course;
 - (2) Those persons that are employed or affiliated with a licensed training institution, may submit documentation of eight hours of adult education training to satisfy the relicensure requirements;
 - (3) Within the current two-year licensure period the instructor has had at least a seventy percent pass rate in both cognitive and practical examinations for the following primary certification courses; emergency medical technician, emergency medical technician-intermediate/85, emergency medical technician-intermediate/99, or paramedic; and
 - (4) In addition, failure to achieve a seventy percent pass rate for these courses would require the instructor to retake the entire initial licensure process for emergency medical services instructor or require the instructor to be affiliated with a licensed training institution for a period of two years.
4. Continuing education coordinator:
- a. Student prerequisite. An individual must be at least eighteen years of age and certified or licensed for at least two years as a patient care provider at the level at which the individual will instruct.
 - b. Curriculum. The course curriculum must be that issued by the division of emergency medical services and trauma.

- c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor.
 - d. Initial licensure. The department shall issue initial licensure to persons who have completed an authorized course. Persons completing the course between January first and June thirtieth shall be licensed until June thirtieth of the second year. Persons completing the course between July first and December thirty-first shall be licensed until June thirtieth of the third year.
 - e. Relicensure. The department shall relicense for a two-year period those persons:
 - (1) Who have completed the department's relicensure course; or
 - (2) Who are employed or affiliated with a licensed training institution, upon submission of documentation of continued affiliation with a licensed training institution.
5. Epinephrine administration:
- a. Student prerequisite certification. A student must be certified as an emergency medical responder or its equivalent.
 - b. Curriculum. The course curriculum must be that issued by the department entitled "Epinephrine Administration Module".
 - c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor or continuing education coordinator and must be currently certified in epinephrine administration or its equivalent.
 - d. Testing. The student must correctly answer at least seventy percent of the questions on a written examination specified by the department and pass all portions of a practical examination specified by the department. The practical examination must consist of performing subcutaneous injection of epinephrine with the use of a preloaded, self-injecting device such as the epipen trainer.
 - e. Certification. The department shall issue a certification to persons who have completed an authorized course and passed the testing process. Persons passing the testing process between January first and June thirtieth shall be certified until June thirtieth of the second year. Persons passing the testing process between July first and December thirty-first shall be certified until June thirtieth of the third year.

6. Dextrose administration:

- a. Student prerequisite licensure. A student must be licensed as an emergency medical technician-intermediate or its equivalent.
- b. Curriculum. The course curriculum must be that issued by the department entitled "EMT-I – 50% Dextrose Administration Module".
- c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor or continuing education coordinator and must be licensed as a paramedic or its equivalent.
- d. Testing. The student must correctly answer at least seventy percent of the questions on a written examination specified by the department and pass all portions of a practical examination specified by the department. The practical examination must consist of administration of the drug by aseptic injection into intravenous administration tubing.
- e. Certification. The department shall issue a certification to persons who have completed an authorized course and passed the testing process. Persons passing the testing process between January first and June thirtieth shall be certified until June thirtieth of the second year. Persons passing the testing process between July first and December thirty-first shall be certified until June thirtieth of the third year.

7. Bronchodilator/nebulizer administration:

- a. Student prerequisite licensure. A student must be licensed as an emergency medical technician or its equivalent.
- b. Curriculum. The course curriculum must be the general pharmacology and the respiratory emergencies sections of the curriculum issued by the United States department of transportation, national highway traffic safety administration, for emergency medical technicians-basic, in the edition specified by the department, or its equivalent.
- c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor or continuing education coordinator and be licensed as a paramedic or its equivalent.

- d. Testing. The student must correctly answer at least seventy percent of the questions on a written examination and pass a practical examination specified by the department.
 - e. Certification. The department shall issue a certification to persons who have completed an authorized course and passed the testing process. Persons passing the testing process between January first and June thirtieth shall be certified until June thirtieth of the second year. Persons passing the testing process between July first and December thirty-first shall be certified until June thirtieth of the third year.
8. Limited advanced airway insertion:
- a. Student prerequisite licensure. A student must be licensed as an emergency medical technician or its equivalent.
 - b. Curriculum. The course curriculum must be that issued by the department entitled "Limited Advanced Airway Module".
 - c. Course coordinator. The course coordinator must be licensed as an emergency medical services instructor or continuing education coordinator and must be currently licensed as a paramedic or its equivalent.
 - d. Testing. The student must correctly answer at least seventy percent of the questions on a written examination and pass a practical examination specified by the department.
 - e. Certification. The department shall issue a certification to persons who have completed an authorized course and passed the testing process. Persons passing the testing process between January first and June thirtieth shall be certified until June thirtieth of the second year. Persons passing the testing process between July first and December thirty-first shall be certified until June thirtieth of the third year.
9. Emergency vehicle operations instructor:
- a. Curriculum. The course curriculum must be that issued by the United States department of transportation, national highway traffic safety administration, in the edition specified by the department.
 - b. Course instructor. The department shall designate the course instructor.

- c. Testing. The students must correctly answer at least seventy percent of the questions on a written examination and pass a practical examination specified by the department.
- d. Initial certification. The department shall issue initial certification to persons who have completed an authorized course and passed the testing process. Persons passing the testing process between January first and June thirtieth shall be certified until June thirtieth of the second year. Persons passing the testing process between July first and December thirty-first shall be certified until June thirtieth of the third year.
- e. Recertification. The department shall recertify for a two-year period those persons who have satisfactorily conducted an emergency vehicle operations course or have audited eight hours of an emergency vehicle operator's course.

History: Effective April 1, 1992; amended effective October 1, 1992; August 1, 1994; August 1, 2003; August 1, 2004; January 1, 2006; January 1, 2008; July 1, 2010.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

33-36-01-04.1. Training, testing, and certification standards for certification refresher courses. The department shall authorize the conduct of courses, the testing of students, and the certification of personnel when application has been made on forms requested from and provided by the department prior to conducting the course and in the manner specified by the department contingent on the following requirements:

- 1. Emergency medical responder refresher:
 - a. Curriculum. The course curriculum must be that issued by the United States department of transportation, national highway traffic safety administration, in the edition specified by the department.
 - b. Textbooks. The department shall approve textbooks.
 - c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor or continuing education coordinator and must be currently certified as an emergency medical responder or its equivalent.
 - d. Testing. The student must correctly answer at least seventy percent of the questions on a written examination specified by the department and pass all stations of a practical examination conducted by the course coordinator. The practical examination must consist of no less than one medical, one cardiopulmonary resuscitation, and one trauma station.

2. Emergency medical technician refresher:
 - a. Curriculum. The course curriculum must be that issued by the United States department of transportation, national highway traffic safety administration, in the edition specified by the department.
 - b. Textbooks. The department shall approve textbooks.
 - c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor or continuing education coordinator and must be currently licensed as an emergency medical technician or its equivalent.
 - d. Testing. The student must correctly answer at least seventy percent of the questions on a written examination specified by the department and pass all stations of a practical examination conducted by the course coordinator.
3. Emergency medical technician-intermediate/85 refresher:
 - a. Curriculum. The course coordinator shall select topics consistent with the reregistration requirements of the national registry.
 - b. Textbooks. The department shall approve textbooks.
 - c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor or continuing education coordinator and must be currently licensed as an emergency medical technician-intermediate/85 or its equivalent.
4. Emergency medical technician-intermediate/99 refresher:
 - a. Curriculum. The course coordinator shall select topics consistent with the reregistration requirements of the national registry.
 - b. Textbooks. The department shall approve textbooks.
 - c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor or continuing education coordinator and must be currently licensed as an emergency medical technician-intermediate/99 or its equivalent.
5. Paramedic refresher:
 - a. Curriculum. The course curriculum must be consistent with the reregistration requirements of the national registry.
 - b. Textbooks. The department shall approve textbooks.

- c. Course coordinator. The course coordinator must be licensed by the department as an emergency medical services instructor or continuing education coordinator and must be currently licensed as a paramedic or its equivalent.

History: Effective August 1, 2003; amended effective January 1, 2006; January 1, 2008; July 1, 2010.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

33-36-01-05. Denial, suspension, or revocation of certification or licensure. The department may deny, suspend, or revoke the certification or licensure for a period of time determined by the department of a person who:

1. Has misrepresented to others that the person is a physician, nurse, or health care provider other than the highest level for which they are certified or licensed.
2. Is incapable of properly performing the skills for which the individual has been certified or licensed.
3. Performs a skill which exceeds those allowed by the individual's level of certification or licensure.
4. Is under indictment for or has been convicted of a felony which has a direct bearing upon the person's ability to serve the public in a capacity certified or licensed by this chapter, or has been convicted of a crime that requires the person to register as a sex offender in any state. Persons certified or licensed who are under indictment for or have been convicted of a felony or required to register as a sex offender in any state must report the information to the department.
5. Has been found by a court of law to be mentally incompetent.
6. Failure to follow examination policies as a student, instructor, or course coordinator.
7. Diversion of drugs for personal or unauthorized use.
8. Performance of care in a manner inconsistent with acceptable standards or protocols.
9. Has attempted to obtain by fraud or deceit a certification or license or has submitted to the department any information that is fraudulent, deceitful, or false.
10. Has had the person's national registry or other health care certification or license encumbered for any reason. Persons certified or licensed as

described in this chapter must report any encumbrance of their national registry or other health care certification or licensure to the department.

11. Has misrepresented to others that the person is an employee, volunteer, or agent of an ambulance service, quick response unit, or rescue squad to offer emergency medical services.
12. Unprofessional conduct, which may give a negative impression of the emergency medical services system to the public, as determined by the department.
13. As an instructor has failed to have emergency medical services training authorized as required in section 33-36-01-03, 33-36-01-04, or 33-36-01-04.1.
14. Providing emergency medical services without authorization from a physician.
15. Has been found to be under the influence of alcohol or mind-altering drugs while on call or during an emergency medical response or interfacility transfer.
16. Failing to respond to an emergency while on call. The failure to respond must be caused by the individual's willful disregard and not caused by a good-faith error or circumstances beyond the individual's control as determined by the department.

History: Effective April 1, 1992; amended effective August 1, 2003; January 1, 2006; January 1, 2008; July 1, 2010.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

33-36-01-05.1. Criminal history background checks. The department may perform criminal history background checks on any applicant requesting a certification or license or a person requesting to be listed on an ambulance service or quick response unit's roster as a driver. A driver may be denied participation in any emergency medical services operation based on the driver's criminal background history or any occurrence listed in section 33-36-01-05.

History: Effective January 1, 2008.

General Authority: NDCC 12-60-24.2, 23-27-04.3

Law Implemented: NDCC 12-60-24.2, 23-27-04.3

33-36-01-06. Revocation process. The department may revoke an individual's certification or license after making a diligent effort to:

1. Inform the individual by the department of the allegations.
2. Inform the individual of the department's investigation results.

3. Inform the individual of the department's intent to revoke and provide a notice of right to request hearing.
4. Provide the individual opportunity to request a hearing and rebut the allegations.

History: Effective April 1, 1992; amended effective August 1, 2003; January 1, 2006.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

33-36-01-07. Hearing. A request for hearing must be received by the department no later than twenty days following the individual's receipt of the allegations against the individual. If a hearing is requested, the department will apply to the office of administrative hearings for appointment of a hearing officer. The department will notify any complainants and the accused of the date set for the hearing. The hearing officer will conduct the hearing and prepare recommended findings of fact and conclusions of law as well as a recommended order for the department. The department shall notify the individual of its findings in writing after receiving the attorney general's finding of fact, conclusion of law, and recommended order.

History: Effective April 1, 1992.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

33-36-01-08. Waivers. Based on each individual case, the department may waive any provisions of this chapter that may result in unreasonable hardship upon the individual or the individual's emergency medical service agency, provided such a waiver does not adversely affect the health and safety of patients. The department will consider waivers for the following situations and conditions:

1. A person had completed all the requirements for recertification or relicensure and a good-faith effort was made by that person to recertify with the national registry and by no fault of the person recertification was not granted.
2. A person who was current in the person's certification or license was called to active duty in the United States armed forces and deployed to an area without the resources to maintain the person's certification or license resulting in a lapse of the person's certification or license.
3. Other reason as determined by the department.

4. A waiver may be granted for a specific period of time not to exceed one year and shall expire on June thirtieth of each year.

History: Effective January 1, 2006; amended effective July 1, 2010.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

**CHAPTER 33-36-04
SCOPE OF PRACTICE FOR EMERGENCY MEDICAL SERVICES
PROFESSIONALS**

Section	
33-36-04-01	Definitions
33-36-04-02	Scopes of Practice

33-36-04-01. Definitions. Words defined in chapter 23-27 of the North Dakota Century Code have the same meaning in this chapter. For purposes of this chapter:

1. "Advanced emergency medical technician" means a person that has fulfilled the training, testing, certification, and licensure process for advanced emergency medical technician as required in chapter 33-36-01.
2. "Emergency medical technician" means a person that has fulfilled the training, testing, certification, and licensure process for emergency medical technician as required in chapter 33-36-01.
3. "Emergency medical technician-intermediate/85" means a person that has fulfilled the training, testing, certification, and licensure process for emergency medical technician-intermediate/85 as required in chapter 33-36-01.
4. "Emergency medical technician-intermediate/99" means a person that has fulfilled the training, testing, certification, and licensure process for emergency medical technician-intermediate/99 as required in chapter 33-36-01.
5. "Paramedic" means a person that has fulfilled the training, testing, certification, and licensure process for paramedic as required in chapter 33-36-01.
6. "Primary care provider" means a qualified individual responsible for the care of the patient and supervision of all ambulance personnel while on the ambulance run.

History: Effective January 1, 2008; amended effective July 1, 2010.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

33-36-04-02. Scopes of practice. Each level of emergency medical services professional has a scope of practice that includes the scopes of practice of all subordinate emergency medical services professionals and the scopes of all emergency medical services providers listed in chapter 33-36-03. The hierarchy of emergency medical services professionals is listed sequentially in this section.

1. Emergency medical technician.

- a. **Scope.** The emergency medical technician's core scope of practice includes basic, noninvasive interventions to reduce the morbidity and mortality associated with acute out-of-hospital medical and traumatic emergencies. Emergency care is based on assessment findings. An emergency medical technician is not prepared to make decisions independently regarding the appropriate disposition of patients. The emergency medical technician may make destination decisions in collaboration with medical oversight. The principal disposition of the patient encounter will result in the direct delivery of the patient to an acute care facility. The primary differences between an advanced first-aid ambulance attendant and emergency medical technician are the educational and testing requirements required for licensure as an emergency medical technician.
- b. **Curriculum.** The educational requirements include successful completion of a state-authorized emergency medical technician training program and continued educational requirements as defined in chapter 33-36-01.
- c. **Scope enhancements.** Emergency medical technicians may provide enhanced treatments beyond the core scope if they have completed training as defined in section 33-36-01-04 and have authorization to perform those skills from their medical director.
- d. **Skills.** Specific skills for the emergency medical technician are defined by the department. Local medical directors may limit the specific skills that an emergency medical technician may provide and they may not exceed those specific skills defined by the department.
- e. **Occupational setting.** Emergency medical technicians may participate in the emergency medical services system as a sole responder in a quick response unit, as the primary care provider of a basic life support air or ground ambulance service, or as part of the crew of an advanced life support air or ground ambulance service. Emergency medical technicians may also provide services to a private company or organization as part of a response team that is not offered to the general public.
- f. **Medical oversight.** An emergency medical technician provides medical care with physician oversight. A physician credentials the emergency medical technician and establishes patient care standards through protocol.
- g. **Supervision.** An emergency medical technician may be the highest trained person on a quick response unit and as the primary care

provider may supervise other emergency medical technicians, emergency medical responders, or drivers. As part of a basic life support ambulance crew, an emergency medical technician may supervise subordinate emergency medical services personnel. As part of an advanced life support ambulance service, an emergency medical technician is supervised by a paramedic.

2. Emergency medical technician-intermediate/85.

- a. **Scope.** The scope of practice of an emergency medical technician-intermediate/85 includes basic, limited advanced interventions to reduce the morbidity and mortality associated with acute out-of-hospital medical and traumatic emergencies. Emergency care is based on assessment findings. An emergency medical technician-intermediate/85 is not prepared to make decisions independently regarding the appropriate disposition of patients. The emergency medical technician-intermediate/85 may make destination decisions in collaboration with medical oversight. The principal disposition of the patient encounter will result in the direct delivery of the patient to an acute care facility. The primary differences between an emergency medical technician and emergency medical technician-intermediate/85 are the basic, limited advanced interventions that an emergency medical technician-intermediate/85 may provide.
- b. **Curriculum.** The core educational requirements include successful completion of a state-authorized emergency medical technician-intermediate/85 training program and continued educational requirements as defined in chapter 33-36-01.
- c. **Scope enhancements.** Emergency medical technicians-intermediate/85 may provide enhanced treatments beyond the core scope if they have completed training as defined in section 33-36-01-04 and have the authorization to perform those skills from their medical director.
- d. **Skills.** Specific skills for the emergency medical technician-intermediate/85 are defined by department policy. Local medical directors, or hospitals if working in the hospital setting may limit the specific skills that an emergency medical technician-intermediate/85 may provide. They may not exceed those specific skills defined by department policy.
- e. **Occupational setting.** Emergency medical technicians-intermediate/85 may participate in the emergency medical services system as a sole responder in a quick response unit, as the primary care provider of a basic life support air or ground ambulance service, or as part of the crew of an advanced life support air or ground ambulance service.

Emergency medical technicians-intermediate/85 may work for a hospital in a nonemergency setting or provide services to a private company or organization as part of a response team that is not offered to the general public.

- f. **Medical oversight.** An emergency medical technician-intermediate/85 working in a prehospital setting provides medical care with physician oversight. In this circumstance a physician credentials the emergency medical technician-intermediate/85 and establishes patient care standards through protocol. An emergency medical technician-intermediate/85 working in a hospital setting is credentialed by the hospital.
- g. **Supervision.** An emergency medical technician-intermediate/85 may be the highest trained person on a quick response unit and as the primary care provider may supervise other emergency medical technicians-intermediate/85, emergency medical technicians, first responders, or drivers. As part of a basic life support ambulance crew, an emergency medical technician-intermediate/85 may supervise subordinate emergency medical services personnel. As part of an advanced life support ambulance service an emergency medical technician-intermediate/85 is supervised by a paramedic. Emergency medical technicians-intermediate/85 working in a hospital setting are supervised by nursing staff.

3. Advanced emergency medical technician.

- a. **Scope.** The advanced emergency medical technician's scope of practice includes basic, limited advanced interventions to reduce the morbidity and mortality associated with acute out-of-hospital medical and traumatic emergencies. Emergency care is based on assessment findings. An advanced emergency medical technician is not prepared to make decisions independently regarding the appropriate disposition of patients. The advanced emergency medical technician may make destination decisions in collaboration with medical oversight. The principal disposition of the patient encounter will result in the direct delivery of the patient to an acute care facility. The primary differences between an emergency medical technician and advanced emergency medical technician are the basic, limited advanced interventions that an advanced emergency medical technician may provide.
- b. **Curriculum.** The core educational requirements include successful completion of a state-authorized advanced emergency medical technician training program and continued educational requirements as defined in chapter 33-36-01.

- c. **Skills.** Specific skills for the advanced emergency medical technician are defined by department policy. Local medical directors, or hospitals if working in the hospital setting, may limit the specific skills that an advanced emergency medical technician may provide. They may not exceed those specific skills defined by department policy.
- d. **Occupational setting.** Advanced emergency medical technicians may participate in the emergency medical services system as a sole responder in a quick response unit, as the primary care provider of a basic life support air or ground ambulance service, or as part of the crew of an advanced life support air or ground ambulance service. Advanced emergency medical technicians may work for a hospital in a nonemergency setting or provide services to a private company or organization as part of a response team that is not offered to the general public.
- e. **Medical oversight.** An advanced emergency medical technician working in a prehospital setting provides medical care with physician oversight. In this circumstance, a physician credentials the advanced emergency medical technician and establishes patient care standards through protocol. An advanced emergency medical technician working in a hospital setting is credentialed by the hospital.
- f. **Supervision.** An advanced emergency medical technician may be the highest trained person on a quick response unit and as the primary care provider may supervise other advanced emergency medical technicians, emergency medical technicians, first responders, or drivers. As part of a basic life support ambulance crew, an advanced emergency medical technician may supervise subordinate emergency medical services personnel. As part of an advanced life support ambulance service an advanced emergency medical technician is supervised by a paramedic. Emergency medical technicians working in a hospital setting are supervised by nursing staff.

4. Emergency medical technician-intermediate/99.

- a. **Scope.** The scope of practice of an emergency medical technician-intermediate/99 includes basic, limited advanced and pharmacological interventions to reduce the morbidity and mortality associated with acute out-of-hospital medical and traumatic emergencies. Emergency care is based on assessment findings. An emergency medical technician-intermediate/99 is not prepared to make decisions independently regarding the appropriate disposition of patients. The emergency medical technician-intermediate/99 may make destination decisions in collaboration with medical oversight. The principal disposition

of the patient encounter will result in the direct delivery of the patient to an acute care facility. The primary differences between an emergency medical technician-intermediate/85 and emergency medical technician-intermediate/99 are the limited pharmacological interventions that an emergency medical technician-intermediate/99 may provide.

- b. Curriculum. The core educational requirements include successful completion of a state-authorized emergency medical technician-intermediate/99 training program and continued educational requirements as defined in chapter 33-36-01.
- c. Scope enhancements. Emergency medical technicians-intermediate/99 may provide enhanced treatments beyond the core scope if they have completed training as defined in section 33-36-01-04 and have the authorization to perform those skills from their medical director.
- d. Skills. Specific skills for the emergency medical technician-intermediate/99 are defined by department policy. Local medical directors, or hospitals if working in the hospital setting, may limit the specific skills that an emergency medical technician-intermediate/99 may provide. They may not exceed those specific skills defined by department policy.
- e. Occupational setting. Emergency medical technicians-intermediate/99 may participate in the emergency medical services system as a sole responder in a quick response unit, as the primary care provider of a basic life support air or ground ambulance service, or as part of the crew of an advanced life support air or ground ambulance service. Emergency medical technicians-intermediate/99 may work for a hospital in a nonemergency setting or provide services to a private company or organization as part of a response team that is not offered to the general public.
- f. Medical oversight. An emergency medical technician-intermediate/99 working in a prehospital setting provides medical care with physician oversight. In this circumstance a physician credentials the emergency medical technician-intermediate/99 and establishes patient care standards through protocol. An emergency medical technician-intermediate/99 working in a hospital setting is credentialed by the hospital.
- g. Supervision. An emergency medical technician-intermediate '99 may be the highest trained person on a quick response unit and as the primary care provider may supervise other emergency medical technicians-intermediate/99, emergency

medical technicians-intermediate/85, emergency medical technicians, emergency medical responders, or drivers. As part of a basic life support ambulance crew, an emergency medical technician-intermediate/99 may supervise subordinate emergency medical services personnel. As part of an advanced life support ambulance service an emergency medical technician-intermediate/99 is supervised by a paramedic. Emergency medical technicians-intermediate/99 working in a hospital setting are supervised by nursing staff.

5. Paramedic.

- a. **Scope.** The paramedic's scope of practice includes invasive and pharmacological interventions to reduce the morbidity and mortality associated with acute out-of-hospital medical and traumatic emergencies. Emergency care is based on an advanced assessment and the formulation of a field impression. The paramedic may make destination decisions in collaboration with medical oversight. The principal disposition of the patient encounter will result in the direct delivery of the patient to an acute care facility. The major difference between the paramedic and the emergency medical technician-intermediate/99 is the ability to perform a broader range of advanced skills. These skills carry a greater risk for the patient if improperly or inappropriately performed, are more difficult to attain and maintain competency in, and require significant background knowledge in basic and applied sciences.
- b. **Curriculum.** The core educational requirements include successful completion of a state-authorized paramedic training program and continued educational requirements as defined in chapter 33-36-01.
- c. **Skills.** Specific skills for the paramedic are defined by department policy. Local medical directors, or hospitals if working in the hospital setting, may limit the specific skills that a paramedic may provide and they may not exceed those specific skills defined by department policy.
- d. **Occupational setting.** Paramedics may participate in the emergency medical services system as a sole responder in a quick response unit, as the primary care provider of a basic life support air or ground ambulance service, as the primary care provider of an advanced life support air or ground ambulance service, or as the primary care provider of a critical care air ambulance service. Paramedics may work for a hospital in an emergency or nonemergency setting or provide services to a private company or organization as part of a response team that is not offered to the general public.

- e. Medical oversight. A paramedic working in a prehospital setting provides medical care with physician oversight. In this circumstance a physician credentials the paramedic and establishes patient care standards through protocol. A paramedic employed by and working in a hospital setting is credentialed by the hospital.
- f. Supervision. A paramedic may supervise all subordinate levels of emergency medical services personnel. Paramedics working in a hospital setting are supervised by the hospital's nurse executive.

History: Effective January 1, 2008; amended effective July 1, 2010.

General Authority: NDCC 23-27-04.3

Law Implemented: NDCC 23-27-04.3

PROPOSED AMENDMENTS TO ENGROSSED SENATE BILL NO. 2281

Page 1, line 1, after "A BILL" replace the remainder of the bill with "for an Act to create and enact a new section to chapter 15.1-18.2 and a new section to chapter 23-12 of the North Dakota Century Code, relating to requirements for concussion management programs.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. A new section to chapter 15.1-18.2 of the North Dakota Century Code is created and enacted as follows:

Student athletics - Concussion management program - Requirements.

1. Each school district sponsoring or sanctioning an athletic activity that requires a participating student to regularly practice or train and compete is subject to the terms of a concussion management program.
2. The concussion management program must:
 - a. List the signs and symptoms of a concussion;
 - b. Require that any coach, athletic trainer, or official must remove a student from practice, training, or competition if that student reports or exhibits any listed sign or symptom of a concussion;
 - c. Require that any student who is removed in accordance with this subsection must be examined by a physician as soon as practicable after reporting or exhibiting any listed sign or symptom of a concussion; and
 - d. Provide that any student who is removed in accordance with this subsection may be allowed to return to practice, training, or competition only after the student provides to the student's coach or athletic trainer written authorization from a physician.
3. Before the school district sponsoring or sanctioning the athletic activity allows a student to participate, the student and the student's parent shall document that they have reviewed information regarding concussions incurred by students participating in athletic activities. The school district shall make the information available in printed or electronic form.

SECTION 2. A new section to chapter 23-12 of the North Dakota Century Code is created and enacted as follows:

Athletic activities - Children - Concussion management program - Requirements.

1. Each person sponsoring or sanctioning an athletic activity that requires a child under the age of eighteen to pay a fee in order to regularly practice or

train and compete is subject to the terms of a concussion management program.

2. The concussion management program must:
 - a. List the signs and symptoms of a concussion;
 - b. Require that any coach, athletic trainer, or official must remove a child from practice, training, or competition if that child reports or exhibits any listed sign or symptom of a concussion;
 - c. Require that any child who is removed in accordance with this subsection must be examined by a physician as soon as practicable after reporting or exhibiting any listed sign or symptom of a concussion; and
 - d. Provide that any child who is removed in accordance with this subsection may be allowed to return to practice, training, or competition only after the child provides to the child's coach or athletic trainer written authorization from a physician.
3. Before the person sponsoring or sanctioning the athletic activity allows a child to participate, the child and the child's parent shall document that they have reviewed information regarding concussions incurred by children participating in athletic activities. The person sponsoring or sanctioning the athletic activity shall make the information available in printed or electronic form.
4. This section does not apply to school districts, which are governed by section 1 of this Act, or to any other political subdivisions."

Renumber accordingly