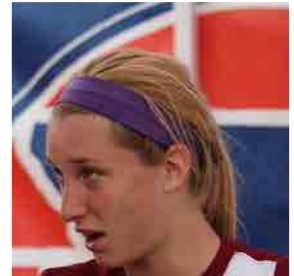
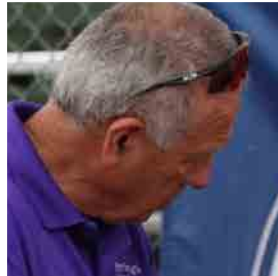




2018-2019



# Interscholastic Youth Sports Brain Injury Report

# MSHSAA

Missouri State High School Activities Association

WWW.MSHSAA.ORG • (573) 875-4880  
Missouri State High School Activities Association  
1 North Keene St. • Columbia, MO 65201



@MSHSAAorg

## 2018-19

# Interscholastic Youth Sports Brain Injury Prevention Report

SCS HCS HB 300, 334, and 387 became law in August 2011, and it mandates that an organization with public schools as members must publish and distribute an annual report regarding the impact of student athlete concussions and head injuries which should include efforts that may be made to minimize damages from school sports injuries. The Department of Health and Senior Services, along with a statewide association of school boards [Missouri School Board Association (MSBA)], a statewide activities association that provides oversight for athletic or activity eligibility for students and school districts, [Missouri State High School Activities Association (MSHSAA)], and an organization named by the Department of Health and Senior Services that specializes in support services, education and advocacy of those with brain injuries [Brain Injury Association of Missouri (BIA-MO)] developed guidelines, pertinent information and forms to educate coaches, staff members, athletes and parents or guardians of youth athletes of the nature and risk of concussion and brain injury including continuing to play after a concussion or a brain injury (1).

MSHSAA has distributed and updated head injury materials annually since August of 2009 to its member schools using a variety of sources (2). These materials provide information that will educate parents, coaches, staff members, and athletes on the prevention, management, and dangers of head injuries in interscholastic sports (3). In December of 2011, MSHSAA conducted its first annual survey of member schools and the impact of head injuries. A ninth survey was conducted during the summer of 2019, to collect data from the MSHSAA member schools. Five hundred and ninety schools were contacted to complete the survey. The survey window was from May 28 through June 30, 2019. Working with the Brain Injury Association of Missouri, Department of Health and Senior Services, Missouri Athletic Trainers Association, Missouri School Nurses Association and Missouri School Board Association a pilot program began for the winter and spring of 2014, Sports Concussions: Facts, Fallacies and New Frontiers. The program was conducted in five regional sites presenting a one-day seminar educating staff members, coaches, nurses and athletic trainers on the new research and policies pertaining to head injuries. Because of the great success and attendance of the program, it will once again be conducted in 2020.

Harvey Richards, retired Associate Executive Director formerly in charge of Sports Medicine for MSHSAA, was a part of the state legislative process for the head injury bill (4). Greg Stahl is the current Assistant Executive Director in charge of Sports Medicine for MSHSAA, responsible for the distribution of educational materials to member schools, and conducted the 2018-19 Head Injury Survey (5).

- (1) Timetable of Meetings, Appendix A.
- (2) Fall membership-mailing, e-mails, website ([mshsaa.org](http://mshsaa.org)), district in-services.
- (3) Educational packet for member schools, Appendix B.
- (4) Harvey Richards, Retired Associate Executive Director, 1 N Keene St, Columbia MO 65201; [richarvey14@gmail.com](mailto:richarvey14@gmail.com)
- (5) Greg Stahl, Assistant Executive Director, 1 N Keene St., Columbia, MO 65201; [greg@mshsaa.org](mailto:greg@mshsaa.org); (573) 875-4880.

## 2018-19 Head Injury Survey

School Level	Total Schools			Completed Survey			Did Not Complete the Survey			% of Member Schools that Completed Survey		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
High Schools 9-12 and Combined Schools 7-12	592	590	590	498	403	503	94	187	87	84%	68%	85%

### Use of Online Video

The National Federation of High School Activities (NFHS) has produced and made available free, the online course “Concussions in Sports.” MSHSAA has approved this course for coaches to take as their educational component of the law. Many districts viewed this course as an in-service with the entire coaching staff, while others have taken it separately to meet this requirement. For the year July 1, 2018 through June 30, 2019, 4,543 online courses were completed in Missouri.

Did your school district use the NFHS video “Concussion in Sports” to educate your coaching staff for the 2018-19 school year?

Total Schools Responding: 498  
 Yes: 463 (93%)  
 No: 35 (7%)

Note: The 35 schools not using the NFHS online course chose to offer a district in-service to their coaches regarding the signs, symptoms and recognition of concussions.

The next table reflects the number of participants for each sport and/or activity by our member schools. This number will include duplicates for students who are in multiple activities. Music/Band, Sideline Cheerleading (Spirit) and Dance begin in the fall, but some schools will only participate in the winter or spring. The following table reflects the participation rates for the 2017-18 and 2018-19 school years.

High School Sport/Activity	Participants	
	2018-19	2017-18
Baseball	14,614	14,757
Sideline Cheerleading (Spirit)	9,755	9,711
Field Hockey	1,138	1,120
11-man Football	19,951	20,682
8-man Football	512	573
Dance/Pom Team	3,036	2,943
Water Polo	544	538
Wrestling-Boys	6,458	6,638
Wrestling-Girls	956	0
Music-Band	26,546	24,137
Basketball-Boys	13,750	14,030
Cross Country-Boys	5,863	5,943
Cross Country-Girls	4,221	4,310
Soccer-Boys	8,794	8,786
Swimming and Diving-Boys	1,947	1,838
Softball-Girls	9,660	9,723
Tennis-Girls	4,193	3,978
Volleyball-Girls	10,446	10,377
Golf-Boys	3,982	3,776
Tennis-Boys	3,644	3,589
Track and Field-Boys	15,231	15,165
Volleyball-Boys	1,200	1,175
Basketball-Girls	9,733	9,839
Golf-Girls	1,971	1,876
Soccer-Girls	8,185	8,277
Swimming and Diving-Girls	3,244	3,324
Track and Field-Girls	12,386	12,122
Lacrosse-Girls	1,719	1,633
<b>Totals</b>	<b>203,679</b>	<b>200,860</b>

High School Sport/Activity	Total Participation
Sport	164,342
*Taking into Account 20% Duplication of Athletes	32,868
Total Adjustment Participation Sport	131,474
Activity	39,337
*Taking into Account 20% Duplication of Students	7,867
Total Adjustment Participation Activity	31,470
Total Adjustment Participation Sport/Activity	162,944

\*20% duplication is only an estimate and not an actual number.

## Data Collected

Schools were asked to provide information that related to possible head injuries. If signs or symptoms of a head injury were present, the student was to be withheld from that sport and or activity for a minimum of 24 hours and must have been seen by a medical professional. They must also provide to the school a *Return to Play* form before continuing the sport or activity. The information below is a reflection of those students who had to see a medical professional and provide a *Return to Play* form. Not all incidents would have resulted in a concussion.

### HIGH SCHOOL ACTIVITIES

Level	Activity	Sport Related	Non-Sport Related	Days/Class Sport	Days/Class Non-Sport	Days Missed Sport	Days Missed Non-Sport	Diagnosed Sport	Diagnosed Non-Sport	Schools Reporting	Schools Participating
HS	Scholar Bowl	0	1	0	2	0	0	0	0	4	430
HS	Sideline Cheer	300	36	403	131	5,365	849	279	34	115	539
HS	Music Activities	25	1	11	4	474	150	25	1	12	531
HS	Dance/Pom	27	3	26	2	308	39	27	3	25	222
HS	Speech/Debate/Theatre	0	0	0	0	0	0	0	0	0	256
HS	Bass Fishing	0	0	0	0	0	0	0	0	0	26
HS	Bowling	0	0	0	0	0	0	0	0	0	10
HS	Chess	0	0	0	0	0	0	0	0	0	36
HS	Target Shooting	0	0	0	0	0	0	0	0	0	35
	<b>TOTAL</b>	<b>352</b>	<b>41</b>	<b>440</b>	<b>139</b>	<b>6,147</b>	<b>1,038</b>	<b>331</b>	<b>38</b>	<b>156</b>	

### HIGH SCHOOL SPORTS

Level	Activity	Sport Related	Non-Sport Related	Days/Class Sport	Days/Class Non-Sport	Days Missed Sport	Days Missed Non-Sport	Diagnosed Sport	Diagnosed Non-Sport	Schools Reporting	Schools Participating
HS	Baseball - Spring	47	11	37	8	407	181	42	10	47	524
HS	Basketball - Boys	154	12	155	20	1,664	277	136	12	103	597
HS	Basketball - Girls	252	27	361	54	3,524	442	229	26	150	576
HS	Cross Country - Boys	5	6	7	2	188	91	5	6	9	429
HS	Cross Country - Girls	9	8	2	4	57	74	7	8	12	426
HS	Field Hockey	37	6	67	1	409	64	32	6	17	32
HS	11-Man Football	1,315	33	1,569	64	17,160	845	1,200	28	221	349
HS	8-Man Football	20	1	24	6	188	21	19	1	8	37
HS	Golf - Boys	1	1	1	3	1	6	1	1	2	330
HS	Golf - Girls	3	1	6	1	80	6	3	1	4	202
HS	Soccer - Boys	270	9	363	24	3,301	226	249	6	115	252
HS	Soccer - Girls	340	23	444	44	3,594	331	323	22	130	249
HS	Softball - Girls Fall	95	14	134	21	1,215	277	86	12	78	371
HS	Swim/Diving - Boys	13	2	12	0	186	16	12	2	12	116
HS	Swim/Diving - Girls	20	4	15	5	325	129	18	4	17	146
HS	Tennis - Boys	1	1	0	41	0	0	0	1	2	184
HS	Tennis - Girls	15	5	14	36	314	354	10	5	13	188
HS	Track/Field - Boys	21	10	11	11	187	129	16	11	26	530
HS	Track/Field - Girls	29	18	30	17	340	272	26	17	36	534
HS	Volleyball - Boys	15	0	2	0	129	0	12	0	11	45
HS	Volleyball - Girls	143	17	167	29	1,831	332	136	17	89	460
HS	Water Polo	14	0	7	0	80	0	13	0	6	21
HS	Wrestling - Boys	183	7	167	9	2,772	142	170	5	95	253
HS	Wrestling - Girls	53	2	52	5	807	125	53	2	29	169
HS	Baseball - Fall	2	0	0	0	23	0	2	0	2	106
HS	Softball - Girls Spring	15	1	16	1	91	11	13	1	11	150
HS	Lacrosse - Girls	74	10	162	11	733	76	59	10	22	39
	<b>TOTAL</b>	<b>3,146</b>	<b>229</b>	<b>3,825</b>	<b>417</b>	<b>39,606</b>	<b>4,427</b>	<b>2,872</b>	<b>214</b>	<b>1,267</b>	

## 2018-19 Concussion Survey Results

Sports	Number of Athletic Reports	Number of Days Sport was Missed	Number of Days Class Time Missed
Male	2,061	26,286	2,355
Female	1,085	13,320	1,470
<b>Total</b>	<b>3,146</b>	<b>39,606</b>	<b>3,825</b>
Activities	Number of Activity Reports	Number of Days Activity was Missed	Number of Days Class Time Missed
<b>Total</b>	<b>352</b>	<b>6,147</b>	<b>440</b>
<b>GRAND TOTAL</b>	<b>3,498</b>	<b>45,753</b>	<b>4,265</b>

There were a total of 2,061 males and 1,085 females held out of practices and contests due to a head injury, for a total of 26,286 and 13,320 days respectively. This means that the male athletes were held out an average of 12.8 days per incident, and the female athletes also were held out an average of 12.3 days per incident. This does show a good correlation to the gradual return-to-play guidelines, which indicates at a minimum a five-day to seven-day return rate. The number of days that a student missed class time still remains a low number compared to the total number of days missed in the sport or activity.

2018-19 Top 7 Head Injury Sports/Activities	
Sport/Activity	Number of Head Injuries
Football	1,335
Soccer (G)	340
Sideline Cheerleading	300
Soccer (B)	270
Basketball (G)	252
Wrestling (B)	183
Basketball (B)	154

2017-18 Top 7 Head Injury Sports/Activities	
Sport/Activity	Number of Head Injuries
Football	1,185
Soccer (G)	337
Sideline Cheerleading	279
Wrestling (B)	257
Basketball (G)	238
Soccer (B)	197
Volleyball (G)	165

According to the Article, *Athletic Trainer, Doctors Assess, Manage Most Concussions in High School Sports*: “Nearly half (47.2%) of the total number of concussions were sustained by football players.” Our data is reporting 38.2% of the total number is by football players.

2018-19 Percentage of Head Injuries per Total Occurrences	
Sport/Activity	% of total reported Head Injuries
Football	38.2%
Soccer (G)	9.7%
Sideline Cheerleading	8.6%
Soccer (B)	7.7%
Basketball (G)	7.2%
Wrestling (B)	5.2%
Basketball (B)	4.4%

Concussion Rates per 10,000 athletic exposures From High School RIO Surveillance Study	
Sport/Activity	Rate
Football	9.97
Soccer (G)	6.95
Soccer (B)	4.38
Basketball (G)	4.58
Wrestling (B)	5.97
Basketball (B)	2.13

MSHSAA Athletic exposure was calculated from the first day of practice to the end of districts for that sport. This is not a true actual count of participation but very accurate assumption. Example:

Football had on the average 80 days of practice and/or contests.  
 80 x 20,463 participants = 1,637,040 exposures.  
 1,335 reported head injuries.

$$\frac{1,335}{1,637,040} = \frac{X}{10,000}$$

MSHSAA 2018-19 Concussion Rates per 10,000 Athletic Exposures		
Sport/Activity	*Rate #1	**Rate #2
Football	8.15	7.45
Soccer (G)	6.39	6.07
Sideline Cheerleading	3.84	3.57
Soccer (B)	4.72	4.36
Basketball (G)	3.05	2.77
Wrestling (B)	4.36	4.05
Basketball (B)	1.32	1.16

\*Rate #1: Student athletes removed from participation due to suspected concussion.

\*\*Rate #2: Student athletes removed from participation due to diagnosed concussion.

**There were several questions asked on this year's survey:**

1. Does your school mandate the use of the MSHSAA Return to Play form for all athletes to return to practices/contests after having shown signs or symptoms of a concussion?
2. Has your school taken any steps in implementing a Return to Learn protocol for student athletes returning to the classroom after having shown signs or symptoms of a concussion?
3. Does your school district have an emergency action plan in place for all home contest sites?
4. Does your school district have an emergency action plan in place for each sport/activity and each sport/activity venue that it uses (i.e., gym, baseball field, tennis court, etc.)?
5. Does your school district use the services of an athletic trainer or other medical support throughout the year (Practices and/or Contests)?



6. If your school plays football, do you have an ambulance/EMT services at the contests?
7. During the 2018-19 school year, the WBGT was the new protocol/guideline for measuring heat and humidity levels in order to determine whether a practice/contest is continued, suspended or canceled. Has your school been using WBGT readings to measure heat and humidity levels for outdoor sports during the 2018-19 school year?
8. Does your school conduct mandatory coach's meetings where requirements for the 16-day Heat Acclimatization Period and use of the WBGT is covered?

**Below are the results from these questions:**

<b>High School Responses</b>		
<b>Question</b>	<b>Answer</b>	<b>Number of Responses</b>
Does your school mandate the use of the MSHSAA Return to Play form for all athletes to return to practices/contests after having shown signs or symptoms of a concussion?	No	14
Does your school mandate the use of the MSHSAA Return to Play form for all athletes to return to practices/contests after having shown signs or symptoms of a concussion?	Yes	484
Has your school taken any steps in implementing a Return To Learn protocol for student athletes returning to the classroom after having shown signs or symptoms of a concussion?	No	139
Has your school taken any steps in implementing a Return To Learn protocol for student athletes returning to the classroom after having shown signs or symptoms of a concussion?	Yes	359
Does your school district have an emergency action plan in place for all home contest sites?	No	40
Does your school district have an emergency action plan in place for all home contest sites?	Yes	458
Does your school district have an emergency action plan in place for each sport/activity and each sport/activity venue that it uses (i.e., gym, baseball field, tennis court, etc.)?	No	57
Does your school district have an emergency action plan in place for each sport/activity and each sport/activity venue that it uses (i.e., gym, baseball field, tennis court, etc.)?	Yes	441
Does your school district use the services of an athletic trainer or other medical support throughout the year? (Practices and/or Contests)	No, our school does not have any athletic trainer services	149
Does your school district use the services of an athletic trainer or other medical support throughout the year? (Practices and/or Contests)	Yes: Full time at the school for both practices and contests. (All levels)	154
Does your school district use the services of an athletic trainer or other medical support throughout the year? (Practices and/or Contests)	Yes: Part-time, covering contests only (All levels)	24
Does your school district use the services of an athletic trainer or other medical support throughout the year? (Practices and/or Contests)	Yes: Part-time covering most of the varsity contests, but not all	69
Does your school district use the services of an athletic trainer or other medical support throughout the year? (Practices and/or Contests)	Yes: Part-time, check-up on injuries and covering the contests (All levels)	102

Question	Answer	Number of Responses
If your school plays football, do you have an ambulance/EMT service at the contests?	No	221
If your school plays football, do you have an ambulance/EMT service at the contests?	Yes	277
If your school plays football, do you have an ambulance at the contests?	N/A we do not play football.	150
If your school plays football, do you have an ambulance at the contests?	No, we do not have an ambulance at the contests.	82
If your school plays football, do you have an ambulance at the contests?	Yes, at all of the contests, Freshman, JV and Varsity	135
If your school plays football, do you have an ambulance at the contests?	Yes, at the varsity games only	131
During the 2018-19 School Year, the WBGT (Wet Bulb Glove Thermometer) was the new protocol/guideline for measuring heat and humidity levels in order to determine whether a practice/contest is continued, suspended or canceled. Has your school been using WBGT readings to measure heat and humidity levels for outdoor sports during the 2018-19 school year?	No	221
During the 2018-19 School Year, the WBGT (Wet Bulb Glove Thermometer) was the new protocol/guideline for measuring heat and humidity levels in order to determine whether a practice/contest is continued, suspended or canceled. Has your school been using WBGT readings to measure heat and humidity levels for outdoor sports during the 2018-19 school year?	Yes	277
Does your school conduct mandatory coach's meetings where requirements for the 16 day Heat Acclimatization Period and use the WBGT is covered?	No	159
Does your school conduct mandatory coach's meetings where requirements for the 16 day Heat Acclimatization Period and use the WBGT is covered?	Yes	339

There were a total of 498 responses to the questions, with 92% of the schools stating that they did have an emergency action plan in place for all home contest sites. This is a good number, but we want 100% of our schools to have, by site, emergency action plans in place for all home contest sites. These plans must also be practiced, just like their sport or activity, to make sure that they are successful.

There were 97% of the schools responding that mandate the use of the MSHSAA Return to Play form for athletes to return to practices/contests after having shown signs or symptoms of a concussion. When asked if the school has taken steps in implanting a Return to Learn protocol for students returning to the classroom after showing signs or symptoms of concussion, 72% responded with a "yes" answer.

There were 89% of the reporting schools indicating that they did have an emergency action plan in place for each sport/activity and sport/activity venue that it uses; for example, the gym, the baseball field, the tennis court, etc.

There were 149 schools reporting that they did not use the services of an athletic trainer at their school. This means that 30% of the schools responding rely upon the coaches, administration and/or the school nurse to provide onsite medical attention. On the other hand, I was encouraged to see that 154 of the schools responding (31%) had full time athletic trainers for both practices and contests.

Football-playing schools that responded to the survey at the high school level reported that 38% have an ambulance present at the varsity games only, with 39% covering all levels of football competition. The survey indicated that 24% of the schools did not have an ambulance at their home contest for any level of competition.

Educational materials were distributed to all member schools and are available for the public to access through our website ([www.mshsaa.org](http://www.mshsaa.org)). Awareness of this serious issue has come to the forefront. Several schools have requested an in-service to educate their coaching staff, with professionals conducting the program. Our staff, along with several others, has put programs in place to continue the educational effort and stay abreast of any new research available.

This past year, MSHSAA supported the Brain Injury Association of Missouri in putting together a program at three different locations in the state of Missouri: Sports Concussions: Facts, Fallacies and New Frontiers.

SEMINAR TOPICS included:

- Screening for Concussions
- Identification of Concussions
- Care Management of Concussions
- Prevention of Concussions

MSHSAA will conduct an annual survey during each summer to collect yearlong data. The Sports Medicine Committee will evaluate the questions and the report.

# APPENDIX A

## 2010-19 Timetable of Meetings

Place	Date of Meeting
MSHSAA Office - Sports Medicine Committee	April 28, 2010
NFHS Summer Meeting - Sports Medicine Committee	July 6-9, 2010
Parkway School District - Concussion Presentation	August 12, 2010
MSHSAA Office - Sports Medicine Committee	January 6, 2011
Capitol, Jefferson City, MO - Concussion Bill	January 11, 2011
Capitol, Jefferson City, MO - Meeting – House Bill 300	February 7, 2011
Phone Conference - House Bill 300	February 25, 2011
St. Louis Children’s Hospital - Press Conference House Bill 300	March 4, 2011
MSHSAA Office - Phone Conference - House Bill 300	March 7, 2011
NFHS Summer Meeting - Sports Medicine Committee	June 27 – July 1, 2011
MSHSAA Office - Conference Call - Concussions	August 16, 2011
MSHSAA Office - Concussion Meeting	August 25, 2011
MSHSAA Office - Sports Medicine Committee	January 5, 2012
Conference Call - Adult Brain Injury (MO Dept. of Health/Sr. Svc.)	January 19, 2012
Conference Call - Adult Brain Injury (MO Dept. of Health/Sr. Svc.)	February 14, 2012
Meeting in St. Louis - St. Louis Brain Association Meeting	March 1, 2012
Mercy Sports Medicine Conference - Exertional Heat Illnesses	March 30-31, 2012
MSHSAA Office - Adult Brain Injury (MO Dept. of Health/Sr. Svc.)	August 30, 2012
University of Missouri Research - Survey of all Injuries	June 1, 2012
Coaches Training Meeting (Chillicothe) - Head/Spinal Injuries (Hedrick Medical Building) - St. Luke’s College of Health Sciences	October 12, 2012
MSHSAA Office - Sports Medicine Committee	December 13, 2012
MSHSAA Office - Meeting with Dr. Hubbard, St. Luke’s	April 3, 2013
Conference Call - Brain Injury Association of Missouri	April 16, 2013
University of Missouri Research - Survey of all Injuries	June 2, 2013

NFHS Summer Meeting - Sports Medicine Committee	June 24-28, 2013
Stoney Creek Inn - Brain Injury Association of Missouri - Annual Meeting Planning	September 6, 2013
Coaches Training Meeting - St. Luke's College of Health Sciences	October 2, 2013
Conference Call - St. Luke's College of Health Sciences	October 23, 2013
Conference Call - University of Missouri Journalism - Concussion Interview	November 12, 2013
NFL – Chiefs - Head's Up Mom's Football Safety Clinic	December 3, 2013
MSHSAA Office - Sports Medicine Committee	December 12, 2013
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Springfield, MO	January 14, 2014
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Kansas City, MO	January 22, 2014
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Columbia, MO	January 27, 2014
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - St. Louis, MO	February 4, 2014
NFHS Summer Meeting - Sports Medicine Committee	June 27 – July 2, 2014
Summer's AD Workshop - Emergency Action Planning	July 31, 2014
Stoney Creek Inn - Brain Injury Association of Missouri - Concussion Seminar Planning	October 8, 2014
MSHSAA Office - Sports Medicine Committee	December 11, 2014
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Springfield, MO	January 16, 2015
NFHS Football Meeting - Indianapolis, IN	January 23-25, 2015
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Columbia, MO	January 27, 2015
Missouri United Schools Insurance Council - Concussion Seminar - Lake of the Ozarks	January 29-30, 2015
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - St. Louis, MO	February 5, 2015
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Kansas City, MO	February 12, 2015

MSHSAA Office - Sports Medicine Committee	February 18, 2015
USA/NFL Football Meeting - Indianapolis, IN	February 22, 2015
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Cape Girardeau, MO	February 26, 2015
USA/NFL Football Meeting - New York, New York	March 26-27, 2015
MIAAA Meeting - Concussion Information Booth/Heads Up Football - Lake Ozark, MO	April 10-14, 2015
Sports Medicine Advisory Committee Meeting - Overuse Injuries in Baseball - Indianapolis, IN	June 8-10, 2015
NFHS Summer Meeting - Sports Medicine Committee - New Orleans, LA	June 26 – July 3, 2015
Officiate Missouri Day - St. Louis, MO	July 24-25, 2015
SERC Sports Medicine Symposium - Kansas City, MO	August 1, 2015
Brain Injury Association - Statewide Conference Call	August 18, 2015
KBIA Radio Interview - Athletic Trainers at High School Sporting Events	September 18, 2015
Brain Injury Association Meeting - St. Louis, MO	September 23, 2015
MSHSAA Office - Sports Medicine Committee	December 10, 2015
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Columbia, MO	February 17, 2016
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Cape Girardeau, MO	February 18, 2016
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - St. Louis, MO	February 22, 2016
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Springfield, MO	February 25, 2016
USA/NFL Football Meeting - Indianapolis, IN	March 21-23, 2016
MIAAA Meeting - Concussion Information Booth - Lake Ozark, MO	April 8-12, 2016
NFHS Summer Meeting - Sports Medicine Committee - Reno, NV	June 28 – July 3, 2016
MSHSAA Office - Sports Medicine Committee	December 3, 2016
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - St. Louis, MO	January 26, 2017
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Kansas City, MO	February 2, 2017

Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Columbia, MO	February 9, 2017
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Springfield, MO	February 23, 2017
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Cape Girardeau, MO	March 2, 2017
Solutions for Safety in Sports Seminar - Kansas City, MO	March 28-29, 2017
MIAAA Meeting - Concussion Information Booth – Head Injury Survey Info - Lake Ozark, MO	April 7-11, 2017
NFHS Summer Meeting - Sports Medicine Committee - Providence, RI	June 28 – July 3, 2017
MSHSAA Office - Sports Medicine Committee	September 5, 2017
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - St. Louis, MO	January 29, 2018
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Columbia, MO	February 2, 2018
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Cape Girardeau, MO	February 6, 2018
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Springfield, MO	February 8, 2018
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Kansas City, MO	February 12, 2018
MSHSAA Office - Sports Medicine Committee	March 1, 2018
MIAAA Meeting - Concussion Information Booth – Head Injury Survey Info - Lake Ozark, MO	April 8-10, 2018
NFHS SMAC Summit - Indianapolis, IN	April 21-23, 2018
NFHS Summer Meeting - Sports Medicine Committee - Chicago, IL	June 27-July 3, 2018
MSHSAA Sports Medicine Advisory Committee Meeting - Columbia, MO	September 10, 2018
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - St. Louis, MO	February 26, 2019
MSHSAA Sports Medicine Advisory Committee Meeting - Columbia, MO	February 28, 2019
Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Kansas City, MO	March 4, 2019



Sports Concussion: Facts, Fallacies and New Frontiers - Brain Injury Association - Columbia, MO	March 11, 2019
MIAAA Meeting - Concussion Information Booth – Head Injury Survey Info - Lake Ozark, MO	April 7-9, 2019
NFHS Summer Meeting - Sports Medicine Committee - Indianapolis, IN	June 26-July 2, 2019

# APPENDIX B

# SPORTS MEDICINE REMINDERS FOR ALL ATHLETIC DIRECTORS

## Concussion Information and Materials

- ❖ All coaches must take a course on the signs, symptoms, and prevention of concussions.
  - There is a free-of-charge course that is located on the NFHS Learning Center website ([www.nfhslearn.com](http://www.nfhslearn.com)). Once there, go to the FREE/ELECTIVE COURSES section. Click on the right arrow until you come to the “Concussion in Sports – What You Need To Know” course.
  - There is also a link to this course on our website located at ([www.mshsaa.org](http://www.mshsaa.org)) located on the Sports Medicine Tab in the CONCUSSION section.
- ❖ All **parents and athletes** must receive and sign for the concussion materials as indicated on the MSHSAA Pre-Participation Physical Form.
- ❖ The concussion information for parents and athletes can be found in the following locations:
  - The free NFHS “Concussion in Sports” course described above;
  - The materials that are provided on our website ([www.mshsaa.org](http://www.mshsaa.org)) by clicking on the Sports Medicine Tab.
  - The Concussion Information PowerPoint located on our website ([www.mshsaa.org](http://www.mshsaa.org)) by clicking on the Sports Medicine Tab and then on “MSHSAA Concussion Video Introduction.”
- ❖ **Athletic Directors** must keep accurate records and documentation of concussion education for coaches, athletes and parents and be able to provide it to MSHSAA when requested.

## Emergency Action Planning Guide

- ❖ On the MSHSAA web site under Sports Medicine is information for your school to set up and implement the “Anyone Can Save a Life” program. This program is free of charge. If you have any question, please contact MSHSAA.

## Wet Bulb Globe Thermometers (WBGT)

- ❖ The use Heat Index is no longer the recommended indicator/measurement for determining whether a practice or contest must be postponed or suspended due to heat/humidity. The use of a Wet Bulb Globe Thermometer (WBGT) is now the recommended practice for determining unsafe heat/humidity conditions.
- ❖ WBGT Recommendations and Guidelines, Background and Rationale and a resource list of websites to secure a WBGT are posted on the Sports Medicine page at [www.mshsaa.org](http://www.mshsaa.org).

## Online Sports Medicine Information

- ❖ All Sports Medicine information is located online by going to the MSHSAA website ([www.mshsaa.org](http://www.mshsaa.org)) and clicking on the Sports Medicine tab.
- ❖ Reminder - Fall Sports: Mandatory 16 Day Heat Acclimatization requirements are to be followed for the start of fall practices. Please see information on heat/hydration found on the Sports Medicine page of our website.

# MSHSAA



All concussions are serious.  
If you think you have a

# CONCUSSION:

- \* Don't hide it.
- \* Report it.
- \* Take time to recover.





**It's better to miss one game  
than the whole season.**

For more information and to order additional materials  
*free-of-charge*, visit: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
CENTERS FOR DISEASE CONTROL AND PREVENTION





# Heads Up to Schools: KNOW YOUR CONCUSSION ABCs

**A**ssess  
the  
situation

**B**e alert for  
signs and  
symptoms

**C**ontact a  
health care  
professional

## A Fact Sheet for Parents

### What is a concussion?

A concussion is a type of brain injury that changes the way the brain normally works. A concussion is caused by a bump, blow, or jolt to the head. Concussions can also occur from a blow to the body that causes the head and brain to move rapidly back and forth. Even what seems to be a mild bump to the head can be serious.

Concussions can have a more serious effect on a young, developing brain and need to be addressed correctly.

### What are the signs and symptoms of a concussion?

You can't see a concussion. Signs and symptoms of concussion can show up right after an injury or may not appear or be noticed until hours or days after the injury. It is important to watch for changes in how your child or teen is acting or feeling, if symptoms are getting worse, or if s/he just "doesn't feel right." Most concussions occur without loss of consciousness.

If your child or teen reports *one or more* of the symptoms of concussion listed below, or if you notice the symptoms yourself, seek medical attention right away. Children and teens are among those at greatest risk for concussion.

## SIGNS AND SYMPTOMS OF A CONCUSSION

### SIGNS OBSERVED BY PARENTS OR GUARDIANS

- Appears dazed or stunned
- Is confused about events
- Answers questions slowly
- Repeats questions
- Can't recall events *prior* to the hit, bump, or fall
- Can't recall events *after* the hit, bump, or fall
- Loses consciousness (even briefly)
- Shows behavior or personality changes
- Forgets class schedule or assignments

### SYMPTOMS REPORTED BY YOUR CHILD OR TEEN

#### Thinking/Remembering:

- Difficulty thinking clearly
- Difficulty concentrating or remembering
- Feeling more slowed down
- Feeling sluggish, hazy, foggy, or groggy

#### Physical:

- Headache or "pressure" in head
- Nausea or vomiting
- Balance problems or dizziness
- Fatigue or feeling tired
- Blurry or double vision
- Sensitivity to light or noise
- Numbness or tingling
- Does not "feel right"

#### Emotional:

- Irritable
- Sad
- More emotional than usual
- Nervous

#### Sleep\*:

- Drowsy
- Sleeps *less* than usual
- Sleeps *more* than usual
- Has trouble falling asleep

*\*Only ask about sleep symptoms if the injury occurred on a prior day.*

To download this fact sheet in Spanish, please visit: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion). Para obtener una copia electrónica de esta hoja de información en español, por favor visite: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).

# DANGER SIGNS

Be alert for symptoms that worsen over time. Your child or teen should be seen in an emergency department right away if s/he has:

- One pupil (the black part in the middle of the eye) larger than the other
- Drowsiness or cannot be awakened
- A headache that gets worse and does not go away
- Weakness, numbness, or decreased coordination
- Repeated vomiting or nausea
- Slurred speech
- Convulsions or seizures
- Difficulty recognizing people or places
- Increasing confusion, restlessness, or agitation
- Unusual behavior
- Loss of consciousness (even a brief loss of consciousness should be taken seriously)

Children and teens with a concussion should **NEVER** return to sports or recreation activities on the same day the injury occurred. They should delay returning to their activities until a health care professional experienced in evaluating for concussion says they are symptom-free and it's OK to return to play. This means, until permitted, not returning to:

- Physical Education (PE) class,
- Sports practices or games, or
- Physical activity at recess.

## What should I do if my child or teen has a concussion?

1. **Seek medical attention right away.** A health care professional experienced in evaluating for concussion can determine how serious the concussion is and when it is safe for your child or teen to return to normal activities, including physical activity and school (concentration and learning activities).
2. **Help them take time to get better.** If your child or teen has a concussion, her or his brain needs time to heal. Your child or teen may need to limit activities while s/he is recovering from a concussion. Exercising or activities that involve a lot of concentration, such as studying, working on the computer, or playing video games may cause concussion symptoms (such as headache or tiredness) to reappear or get worse. After a concussion, physical and cognitive activities—such as concentration and learning—should be carefully managed and monitored by a health care professional.
3. **Together with your child or teen, learn more about concussions.** Talk about the potential long-term effects of concussion and the dangers of returning too soon to normal activities (especially physical activity and learning/concentration). For more information about concussion and free resources, visit: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).

## How can I help my child return to school safely after a concussion?

Help your child or teen get needed support when returning to school after a concussion. Talk with your child's teachers, school nurse, coach, speech-language pathologist, or counselor about your child's concussion and symptoms. Your child may feel frustrated, sad, and even angry because s/he cannot return to recreation and sports right away, or cannot keep up with schoolwork. Your child may also feel isolated from peers and social networks. Talk often with your child about these issues and offer your support and encouragement. As your child's symptoms decrease, the extra help or support can be removed gradually. Children and teens who return to school after a concussion may need to:

- Take rest breaks as needed,
- Spend fewer hours at school,
- Be given more time to take tests or complete assignments,
- Receive help with schoolwork, and/or
- Reduce time spent reading, writing, or on the computer.

\*To learn more about concussion and to order materials **FREE-OF-CHARGE**, go to: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion) or call 1.800.CDC.INFO.

# HEADS+UP

## CONCUSSION IN HIGH SCHOOL SPORTS

A FACT SHEET FOR **ATHLETES**

### What is a concussion?

A concussion is a brain injury that:

- Is caused by a bump, blow, or jolt to the head or body.
- Can change the way your brain normally works.
- Can occur during practices or games in any sport or recreational activity.
- Can happen even if you haven't been knocked out.
- Can be serious even if you've just been "dinged" or "had your bell rung."

All concussions are serious. A concussion can affect your ability to do schoolwork and other activities (such as playing video games, working on a computer, studying, driving, or exercising). Most people with a concussion get better, but it is important to give your brain time to heal.

### What are the symptoms of a concussion?

You can't see a concussion, but you might notice **one or more** of the symptoms listed below or that you "don't feel right" soon after, a few days after, or even weeks after the injury.

- Headache or "pressure" in head
- Nausea or vomiting
- Balance problems or dizziness
- Double or blurry vision
- Bothered by light or noise
- Feeling sluggish, hazy, foggy, or groggy
- Difficulty paying attention
- Memory problems
- Confusion

### What should I do if I think I have a concussion?

- **Tell your coaches and your parents.** Never ignore a bump or blow to the head even if you feel fine. Also, tell your coach right away if you think you have a concussion or if one of your teammates might have a concussion.
- **Get a medical check-up.** A doctor or other health care professional can tell if you have a concussion and when it is OK to return to play.
- **Give yourself time to get better.** If you have a concussion, your brain needs time to heal. While your brain is still healing, you are much more likely to have another concussion. Repeat concussions can increase the time it takes for you to recover and may cause more damage to your brain. It is important to rest and not return to play until you get the OK from your health care professional that you are symptom-free.

### How can I prevent a concussion?

Every sport is different, but there are steps you can take to protect yourself.

- Use the proper sports equipment, including personal protective equipment. In order for equipment to protect you, it must be:
  - The right equipment for the game, position, or activity
  - Worn correctly and the correct size and fit
  - Used every time you play or practice
- Follow your coach's rules for safety and the rules of the sport.
- Practice good sportsmanship at all times.

**If you think you have a concussion:**  
Don't hide it. Report it. Take time to recover.

**It's better to miss one game than the whole season.**

For more information and to order additional materials **free-of-charge**, visit: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).

# MSHSAA Concussion Return to Play Form

If diagnosed with a concussion, an athlete must be cleared for progression to activity by an approved healthcare provider, MD/DO/PAC/LAT/ARNP/Neuropsychologist (Emergency Room physician cannot clear for progression).

Athlete's Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Date of Injury: \_\_\_\_\_

## THIS RETURN TO PLAY IS BASED ON TODAY'S EVALUATION

Date of Evaluation: \_\_\_\_\_ Return to School On (Date): \_\_\_\_\_

### The following are the return to physical activities recommendations at the present time:

- Diagnosed with a concussion: Cannot return to physical activity, sport or competition (must be re-evaluated).
- Diagnosed with a concussion: May return to sports participation under the supervision of your school's administration after completing the return to play protocol (see below).
- Not diagnosed with a concussion. Patient has diagnosis of \_\_\_\_\_ and MAY/MAY NOT return to play at this time.

### Medical Office Information (Please Print/Stamp):

Evaluator's Name: \_\_\_\_\_ Office Phone: \_\_\_\_\_

Evaluator's Specialty: \_\_\_\_\_

Evaluator's Signature: \_\_\_\_\_

Evaluator's Address: \_\_\_\_\_

### Return to Play (RTP) Procedures After a Concussion

Return to activity and play is a medical decision. Progression is individualized, must be closely supervised according to the school's policies and procedures, and will be determined on a case-by-case basis. Factors that may affect the rate of progression include: previous history of concussion, duration and type of symptoms, age of the athlete, and sport/activity in which the athlete participates. An athlete with a prior history of concussion, one who has had an extended duration of symptoms, or one who is participating in a collision or contact sport may be progressed more slowly as determined by the healthcare provider who has evaluated the athlete. After the student has not experienced symptoms attributable to the concussion for a **minimum of 24 hours** and has returned to school on a full-time basis (if school is in session), the stepwise progression below shall be followed:

- Step 1:** Light cardiovascular exercise.
- Step 2:** Running in the gym or on the field. No helmet or other equipment.
- Step 3:** Non-contact training drills in full equipment. Weight-training can begin.
- Step 4:** Full, normal practice or training (a walk-through practice does not count as a full, normal practice).
- Step 5:** **Full participation.** Must be cleared by MD/DO/PAC/LAT/ARNP/Neuropsychologist before returning to play.

The athlete should spend a minimum of one day at each step before advancing to the next. If concussion symptoms return with any step, the athlete must stop the activity and the treating healthcare provider must be contacted. Depending upon the specific type and severity of the symptoms, the athlete may be told to rest for 24 hours and then resume activity at a level one step below where he or she was at when the symptoms returned.

**Return to Play Protocol (Steps 1-4) Completed (Date/Signature):** \_\_\_\_\_

**Cleared for Return to Play (Step 5) by:** \_\_\_\_\_ **Date:** \_\_\_\_\_

I accept responsibility for reporting all injuries and illnesses to my school and medical staff (athletic trainer/team physician) including any signs and symptoms of a CONCUSSION.

**Signature of Student Athlete:** \_\_\_\_\_ **Date:** \_\_\_\_\_

May be advanced back to competition after phone conversation with the healthcare professional that evaluated the athlete (MD/DO/PAC/LAT/ARNP/Neuropsychologist) and documented above.

This form is adapted from the Acute Concussion Evaluation (ACE) care plan on the CDC website ([www.cdc.gov/injury](http://www.cdc.gov/injury)). All medical providers are encouraged to review this site if they have questions regarding the latest information on the evaluation and care of the scholastic athlete following a concussion injury.



## MSHSAA RETURN TO LEARN – BACKGROUND AND SUGGESTIONS

### What is Returning to Learn After a Concussion?

A concussion is an injury to the brain that affects how the brain can function. Commonly, a person with a concussion can experience headaches, dizziness, troubles with loud noises or bright lights, difficulty focusing and difficulty concentrating. Some students may have only a few symptoms and others may have many symptoms. These symptoms may affect a student's ability to perform at their normal ability in school.

Once diagnosed with a concussion (which may happen through the athletic trainer or another healthcare professional), it is important for the appropriate individuals at the school to be notified of the injury. That may be a school nurse, counselor, athletic trainer, specific teacher or other individual designated by the school as the point person for getting the information to all the student's teachers about the concussion diagnosis.

Following the diagnosis, the school can then make adjustments to the student's environment (as examples: changing seating, reducing brightness on computer monitors, allowing a student to be in a quieter area of the class, allowing breaks in the nurse's office if symptoms increase) and to the student's workload (as examples: giving extra time for assignments or testing, reducing overall workload and homework, providing the student assistance in concepts that may be causing struggles).

A school is able to make adjustments without a note from a healthcare professional. These can be temporary adjustments until the student is able to have a formal evaluation from a healthcare professional. It would benefit the student for these adjustments to be applied as soon as possible and not delayed based on the provision of a healthcare provider's note.

Since most concussion in young athletes resolve within 3-4 weeks, it is not expected that adjustments are necessary for prolonged periods of times, but a small percentage of students may have difficulties that linger. In prolonged cases of concussion, schools may need to consider implementing a 504 plan to formalize the adjustments for the student.

Ideally, students with concussions should be encouraged to communicate with their individual teachers about their specific symptoms as they may change from class to class or from day to day. Since many of the symptoms of concussion are not outwardly visible to others, the communication is critical to keep everyone 'in the loop' about what the student is struggling with so the teachers and school has the most accurate information to help assist the student through whatever means they feel would be best.

Several research studies have demonstrated that prolonged periods of time out of school do not help a student's recovery and may actually lead to increased symptoms and a longer recovery. Prolonged absences also can lead to additional stress the student may experience, including the stress of getting behind on homework and missing out on key concepts to help with their learning.

Even though a student may experience worsening of symptoms during the school day, no research has demonstrated that the act of doing school work is harmful to recovery. It is important for the student, however, to make adjustments to minimize significant periods of worsening symptoms.

Sample school note a healthcare professional can utilize to document recommendations for the student as well as current reported symptoms.

**SCHOOL RECOMMENDATIONS FOLLOWING CONCUSSION**

Patient Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_  
 Date of Evaluation : \_\_\_\_\_ Referred by: \_\_\_\_\_  
 Duration of Recommendations : 1 week      2 weeks      4 weeks      Until further notice

**The patient will be reassessed for revision of these recommendations in \_\_\_\_\_ weeks.**

This patient has been diagnosed with a concussion (a brain injury) and is currently under our care. Please excuse the patient from school today due to the medical appointment. Flexibility and additional supports are needed during recovery. The following are suggestions for academic adjustments to be individualized for the student as deemed appropriate in the school setting. Feel free to apply/remove adjustments as needed as the student’s symptoms improve/worsen.

**Attendance**

- \_\_\_\_\_ No school for \_\_\_\_ school day(s)
- \_\_\_\_\_ Attendance at school \_\_\_\_ days per week
- \_\_\_\_\_ Full school days as tolerated by the student
- \_\_\_\_\_ Partial days as tolerated by the student

**Breaks**

- \_\_\_\_\_ Allow the student to go to the nurse’s office if symptoms increase
- \_\_\_\_\_ Allow other breaks during the school day as deemed necessary and appropriate by school personnel

**Visual Stimulus**

- \_\_\_\_\_ Change classroom seating as necessary
- \_\_\_\_\_ Pre-printed notes for class material or note taker
- \_\_\_\_\_ Avoid extremes of light/dark in classrooms
- \_\_\_\_\_ Reduce brightness on monitors/screens

**Audible Stimulus**

- \_\_\_\_\_ Lunch in a quiet place with a friend
- \_\_\_\_\_ Avoid music or shop classes
- \_\_\_\_\_ Allow to wear earplugs as needed

**Workload/Multi-Tasking**

- \_\_\_\_\_ Reduce overall amount of make-up work, class work and homework
- \_\_\_\_\_ Prorate workload when possible
- \_\_\_\_\_ Reduce amount of homework given each night
- \_\_\_\_\_ Excuse from makeup work if possible

**Testing**

- \_\_\_\_\_ Additional time to complete tests
- \_\_\_\_\_ No more than one test a day
- \_\_\_\_\_ No standardized testing until \_\_\_\_\_
- \_\_\_\_\_ Allow for scribe, oral response, and oral delivery of questions, if available

**Physical Exertion**

- \_\_\_\_\_ No physical exertion/athletics/gym/recess
- \_\_\_\_\_ Walking in gym class only
- \_\_\_\_\_ Begin return to play protocol as outlined by return to activity form

**Additional Recommendations**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Current Symptoms List** (the student is noting these today)

- |                 |                            |                                |                     |
|-----------------|----------------------------|--------------------------------|---------------------|
| _____ Headache  | _____ Visual problems      | _____ Sensitivity to noise     | _____ Memory issues |
| _____ Nausea    | _____ Balance problems     | _____ Feeling foggy            | _____ Fatigue       |
| _____ Dizziness | _____ Sensitivity to light | _____ Difficulty concentrating | _____ Irritability  |

**Student is reporting most difficulty with/in**

- |                    |                             |                        |                       |
|--------------------|-----------------------------|------------------------|-----------------------|
| _____ All subjects | _____ Reading/Language arts | _____ Foreign Language | _____ Math            |
| _____ Science      | _____ Music                 | _____ History          | _____ Using Computers |
| _____ Focusing     | _____ Listening             | Other: _____           |                       |



# Heads Up to Schools: KNOW YOUR CONCUSSION ABCs

**A**ssess  
the  
situation

**B**e alert for  
signs and  
symptoms

**C**ontact a  
health care  
professional

## A Fact Sheet for Teachers, Counselors, and School Professionals

### THE FACTS:

- \* All concussions are serious.
- \* Most concussions occur without loss of consciousness.
- \* Recognition and proper response to concussions when they first occur can help aid recovery and prevent further injury, or even death.

### What is a concussion?

A concussion is a type of brain injury that changes the way the brain normally works. A concussion is caused by a bump, blow, or jolt to the head. Concussions can also occur from a fall or blow to the body that causes the head and brain to move rapidly back and forth. Even what seems to be a mild bump to the head can be serious.

Children and adolescents are among those at greatest risk for concussion. The potential for a concussion is greatest during activities where collisions can occur, such as during physical education (PE) class, playground time, or school-based sports activities. However, concussions can happen any time a student's head comes into contact with a hard object, such as a floor, desk, or another student's head or body. Proper recognition and response to concussion can prevent further injury and help with recovery.

To download this fact sheet in Spanish, please visit: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).  
Para obtener una copia electrónica de esta hoja de información en español, por favor visite: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).

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# What are the signs and symptoms of concussion?

The signs and symptoms of concussion can show up right after an injury or may not appear or be noticed until hours or days after the injury. Be alert for any of the following signs or symptoms. Also, watch for changes in how the student is acting or feeling, if symptoms are getting worse, or if the student just “doesn’t feel right.”



## SIGNS OBSERVED BY TEACHERS AND SCHOOL PROFESSIONALS

- Appears dazed or stunned
- Is confused about events
- Answers questions slowly
- Repeats questions
- Can’t recall events *prior* to the hit, bump, or fall
- Can’t recall events *after* the hit, bump, or fall
- Loses consciousness (even briefly)
- Shows behavior or personality changes
- Forgets class schedule or assignments

## SYMPTOMS REPORTED BY THE STUDENT

### Thinking/Remembering:

- Difficulty thinking clearly
- Difficulty concentrating or remembering
- Feeling more slowed down
- Feeling sluggish, hazy, foggy, or groggy

### Physical:

- Headache or “pressure” in head
- Nausea or vomiting
- Balance problems or dizziness
- Fatigue or feeling tired
- Blurry or double vision
- Sensitivity to light or noise
- Numbness or tingling
- Does not “feel right”

### Emotional:

- Irritable
- Sad
- More emotional than usual
- Nervous

### Sleep\*:

- Drowsy
- Sleeps *less* than usual
- Sleeps *more* than usual
- Has trouble falling asleep

*\*Only ask about sleep symptoms if the injury occurred on a prior day.*

## What are concussion danger signs?

Be alert for symptoms that worsen over time.

The student should be seen in an emergency department right away if s/he has:

- One pupil (the black part in the middle of the eye) larger than the other
- Drowsiness or cannot be awakened
- A headache that gets worse and does not go away
- Weakness, numbness, or decreased coordination
- Repeated vomiting or nausea
- Slurred speech
- Convulsions or seizures
- Difficulty recognizing people or places
- Increasing confusion, restlessness, or agitation
- Unusual behavior
- Loss of consciousness (even a brief loss of consciousness should be taken seriously)



Children and teens with a concussion should NEVER return to sports or recreation activities on the same day the injury occurred. They should delay returning to their activities until a health care professional experienced in evaluating for concussion says they are symptom-free and it's OK to return to play. This means, until permitted, not returning to:

- Physical Education (PE) class,
- Sports practices or games, or
- Physical activity at recess.

For more information and tool kits for youth sports coaches and high school coaches, visit [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).

## How can I recognize a concussion?

Teachers and school counselors may be the first to notice changes in their students. The signs and symptoms can take time to appear and can become evident during concentration and learning activities in the classroom.

**Send a student to the school nurse, or another professional designated to address health issues, if you notice or suspect that a student has:**

1. Any kind of forceful blow to the head or to the body that results in rapid movement of the head,  
**-and-**
2. Any change in the student's behavior, thinking, or physical functioning. (See the signs and symptoms of concussion.)

## What do I need to know about my students returning to school after a concussion?

Supporting a student recovering from a concussion requires a collaborative approach among school professionals, health care providers, and parents, as s/he may need accommodations during recovery. If symptoms persist, a 504 meeting may be called. Section 504 Plans are implemented when students have a disability (temporary or permanent) that affects their performance in any manner.



## What to look for after a concussion

When students return to school after a concussion, school professionals should watch for:

- Increased problems paying attention or concentrating
- Increased problems remembering or learning new information
- Longer time needed to complete tasks or assignments
- Difficulty organizing tasks
- Inappropriate or impulsive behavior during class
- Greater irritability
- Less ability to cope with stress or more emotional



Students who return to school after a concussion may need to:

- Take rest breaks as needed,
- Spend fewer hours at school,
- Be given more time to take tests or complete assignments,
- Receive help with schoolwork, and/or
- Reduce time spent on the computer, reading, or writing.

Services and accommodations for students may include speech-language therapy, environmental adaptations, curriculum modifications, and behavioral strategies.

Students may need to limit activities while they are recovering from a concussion. Exercising or activities that involve a lot of concentration, such as studying, working on the computer, or playing video games, may cause concussion symptoms (such as headache or tiredness) to reappear or get worse.

It is normal for students to feel frustrated, sad, and even angry because they cannot return to recreation or sports right away, or cannot keep up with their schoolwork. A student may also feel isolated from peers and social networks. Talk with the student about these issues and offer support and encouragement. As the student's symptoms decrease, the extra help or support can be removed gradually.



\*For more information on concussion and to order additional materials for school professionals **FREE- OF-CHARGE**, visit: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).



# Heads Up to Schools: KNOW YOUR CONCUSSION ABCs

<b>A</b> ssess the situation	<b>B</b> e alert for signs and symptoms	<b>C</b> ontact a health care professional
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## A Fact Sheet for School Nurses

### What is a concussion?

A concussion is a type of brain injury that changes the way the brain normally works. A concussion is caused by a bump, blow, or jolt to the head. Concussions can also occur from a fall or blow to the body that causes the head and brain to move rapidly back and forth. Even what seems to be a mild bump to the head can be serious.

### How can I recognize a concussion?

To help you recognize a concussion, ask the injured student or witnesses of the incident about:

1. Any kind of forceful blow to the head or to the body that resulted in rapid movement of the head.

-and-

2. Any change in the student's behavior, thinking, or physical functioning. (See the signs and symptoms of concussion.)

### THE FACTS:

- \* All concussions are serious.
- \* Most concussions occur without loss of consciousness.
- \* Recognition and proper response to concussions when they first occur can help aid recovery and prevent further injury, or even death.

To download this fact sheet in Spanish, please visit: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).  
Para obtener una copia electrónica de esta hoja de información en español, por favor visite: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).

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## How can concussions happen in schools?

Children and adolescents are among those at greatest risk for concussion. Concussions can result from a fall, or any time a student's head comes into contact with a hard object, such as the floor, a desk, or another student's head or body. The potential for a concussion is greatest during activities where collisions can occur, such as during physical education (PE) class, playground time, or school-based sports activities.

Students may also get a concussion when doing activities outside of school, but then come to school when symptoms of the concussion are presenting. For example, adolescent drivers are at increased risk for concussion from motor vehicle crashes.

Concussions can have a more serious effect on a young, developing brain and need to be addressed correctly. Proper recognition and response to concussion symptoms in the school environment can prevent further injury and can help with recovery.





# What are the signs and symptoms of concussion?

Students who experience **one or more** of the signs and symptoms listed below after a bump, blow, or jolt to the head or body should be referred to a health care professional experienced in evaluating for concussion.

There is no one single indicator for concussion. Rather, recognizing a concussion requires a symptom assessment. The signs and symptoms of concussion can take time to appear and can become more noticeable during concentration and learning activities in the classroom. For this reason, it is important to watch for changes in how the student is acting or feeling, if symptoms become worse, or if the student just “doesn't feel right.”

## SIGNS OBSERVED BY SCHOOL NURSES

- Appears dazed or stunned
- Is confused about events
- Answers questions slowly
- Repeats questions
- Can't recall events *prior* to the hit, bump, or fall
- Can't recall events *after* the hit, bump, or fall
- Loses consciousness (even briefly)
- Shows behavior or personality changes

## SYMPTOMS REPORTED BY THE STUDENT

### Thinking/Remembering:

- Difficulty thinking clearly
- Difficulty concentrating or remembering
- Feeling more slowed down
- Feeling sluggish, hazy, foggy, or groggy

### Emotional:

- Irritable
- Sad
- More emotional than usual
- Nervous

### Physical:

- Headache or “pressure” in head
- Nausea or vomiting
- Balance problems or dizziness
- Fatigue or feeling tired
- Blurry or double vision
- Sensitivity to light or noise
- Numbness or tingling
- Does not “feel right”

### Sleep\*:

- Drowsy
- Sleeps *less* than usual
- Sleeps *more* than usual
- Has trouble falling asleep

*\*Only ask about sleep symptoms if the injury occurred on a prior day.*



Remember, you can't see a concussion and some students may not experience or report symptoms until hours or days after the injury. Most young people with a concussion will recover quickly and fully. But for some, concussion signs and symptoms can last for days, weeks, or longer.



## What are concussion danger signs?

In rare cases, a dangerous blood clot may form on the brain in a person with a concussion and crowd the brain against the skull. The student should be taken to an emergency department right away if s/he exhibits any of the following danger signs after a bump, blow, or jolt to the head or body:

- One pupil larger than the other
- Is drowsy or cannot be awakened
- A headache that gets worse and does not go away
- Weakness, numbness, or decreased coordination

- Repeated vomiting or nausea
- Slurred speech
- Convulsions or seizures
- Cannot recognize people or places
- Becomes increasingly confused, restless, or agitated
- Has unusual behavior
- Loses consciousness (even a brief loss of consciousness should be taken seriously)

For more information and tool kits for youth sports coaches and high school coaches, visit [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).

## What can school nurses and school professionals do?

Below are steps for you to take when a student comes to your office after a bump, blow, or jolt to the head or body.

1. **Observe student for signs and symptoms of concussion for a minimum of 30 minutes.**
2. **Complete the *Concussion Signs and Symptoms Checklist* and monitor students consistently during the observation period.** The form includes an easy-to-use checklist of signs and symptoms that you can look for when the student first arrives at your office, fifteen minutes later, and at the end of 30 minutes, to determine whether any concussion symptoms appear or change.
3. **Notify the student's parent(s) or guardian(s) that their child had an injury to the head.**
  - > **If signs or symptoms are present:** refer the student right away to a health care professional with experience in evaluating for concussion. Send a copy of the *Concussion Signs and Symptoms Checklist* with the student for the health care professional to review. Students should follow their health care professional's guidance about when they can return to school and to physical activity.

- > **If signs or symptoms are not present:** the student may return to class, but should not return to sports or recreation activities on the day of the injury. Send a copy of the *Concussion Signs and Symptoms Checklist* with the student for their parent(s) or guardian(s) to review and ask them to continue to observe the student at home for any changes. Explain that signs and symptoms of concussion can take time to appear. Note that if signs or symptoms appear, the student should be seen right away by a health care professional with experience in evaluating for concussion.



Children and teens with a concussion should NEVER return to sports or recreation activities on the same day the injury occurred. They should delay returning to their activities until a health care professional experienced in evaluating for concussion says they are symptom-free and it's OK to return to play. This means, until permitted, not returning to:

- Physical Education (PE) class,
- Sports practices or games, or
- Physical activity at recess.



## What do I need to know about students returning to school after a concussion?

Supporting a student recovering from a concussion requires a collaborative approach among school professionals, health care professionals, parents, and students. All school staff, such as teachers, school nurses, counselors, administrators, speech-language pathologists, coaches, and others should be informed about a returning student's injury and symptoms, as they can assist with the transition process and making accommodations for a student. If symptoms persist, a 504 meeting may be called. Section 504 Plans are implemented when students have a disability (temporary or permanent) that affects their performance in any manner. Services and accommodations for students may include speech-language therapy, environmental



### School Policies:

#### *Students Returning to School after a Concussion*

Check with your school administrators to see if your district or school has a policy in place to help students recovering from a concussion succeed when they return to school. If not, consider working with your school administration to develop such a policy. Policy statements can include the district's or school's commitment to safety, a brief description of concussion, a plan to help students ease back into school life (learning, social activity, etc.), and information on when students can safely return to physical activity following a concussion.

adaptations, curriculum modifications, and behavioral strategies.

Encourage teachers and coaches to monitor students who return to school after a concussion. Students may need to limit activities while they are recovering from a concussion. Exercising or activities that involve a lot of concentration, such as studying, working on the computer, or playing video games, may cause concussion symptoms (such as headache or tiredness) to reappear or get worse. After a concussion, physical and cognitive activities—such as concentration and learning—should be carefully monitored and managed by health and school professionals.

If a student already had a medical condition at the time of the concussion (such as chronic headaches), it may take longer to

recover from the concussion. Anxiety and depression may also make it harder to adjust to the symptoms of a concussion.

School professionals should watch for students who show increased problems paying attention, problems remembering or learning new information, inappropriate or impulsive behavior during class, greater irritability, less ability to cope with stress, or difficulty organizing tasks. Students who return to school after a concussion may need to:

- Take rest breaks as needed,
- Spend fewer hours at school,
- Be given more time to take tests or complete assignments,
- Receive help with schoolwork, and/or
- Reduce time spent on the computer, reading, or writing.

It is normal for a student to feel frustrated, sad, and even angry because s/he cannot return to recreation or sports right away, or cannot keep up with schoolwork. A student may also feel isolated from peers and social networks. Talk with the student about these issues and offer support and encouragement. As the student's symptoms decrease, the extra help or support can be gradually removed.

## What can I do to prevent and prepare for a concussion?

Here are some steps you can take to prevent concussions in school and ensure the best outcome for your students:

**Prepare a concussion action plan.** To ensure that concussions are identified early and managed correctly, have an action plan in place before the start of the school year. This plan can be included in your school or district's concussion policy. You can use the online action plan for sports and recreation activities at: [www.cdc.gov/concussion/response/html](http://www.cdc.gov/concussion/response/html). Be sure that other appropriate school and athletic staff know about the plan and have been trained to use it.

**Educate parents, teachers, coaches, and students about concussion.** Parents, teachers, and coaches know their students well and may be the first to notice when a student is not acting normally. Encourage teachers, coaches, and students to:

- Learn about the potential long-term effects of concussion and the dangers of returning to activity too soon.
- Look out for the signs and symptoms of concussion and send students to see you if they observe any or even suspect that a concussion has occurred.
- View videos about concussion online at: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).

**Prevent long-term problems.** A repeat concussion that occurs before the brain recovers from the previous concussion—usually within a short period of time (hours, days, or weeks)—can slow recovery or increase the likelihood of having long-term problems. In rare cases, repeat concussions

can result in edema (brain swelling), permanent brain damage, and even death. Keep students with a known or suspected concussion out of physical activity, sports, or playground activity on the day of the injury and until a health care professional with experience in evaluating for concussion says they are symptom-free and it is OK for the student to return to play.

### **Create safe school environments.**

The best way to protect students from concussions is to prevent concussions from happening. Make sure your school has policies and procedures to ensure that the environment is a safe, healthy place for students. Talk to all school staff and administrators and encourage them to keep the physical space safe, keep stairs and hallways clear of clutter, secure rugs to the floor, and check the surfaces of all areas where students are physically active, such as playing fields and playgrounds. Playground surfaces should be made of shock-absorbing material, such as hardwood mulch or sand, and maintained to an appropriate depth. Proper supervision of students is also important.



For more detailed information about concussion diagnosis and management, please download *Heads Up: Facts for Physicians about Mild Traumatic Brain Injury* from CDC at: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).



### **Monitor the health of your student athletes.**

Make sure to ask whether an athlete has ever had a concussion and insist that your athletes are medically

evaluated and are in good condition to participate in sports. Keep track of athletes who sustain concussions during the school year. This will help in monitoring injured athletes who participate in multiple sports throughout the school year.

Some schools conduct preseason baseline testing (also known as neurocognitive tests) to assess brain function—learning and memory skills, ability to pay attention or concentrate, and how quickly someone can think and solve problems. If an athlete has a concussion, these tests can be used again during the season to help identify the effects of the injury. Before the first practice, determine whether your school would consider baseline testing.

*Again, remember your concussion ABCs:*

- A—Assess the situation
- B—Be alert for signs and symptoms
- C—Contact a health care professional

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\* For more information on concussion and to order additional materials for school professionals **FREE-OF-CHARGE**, visit: [www.cdc.gov/Concussion](http://www.cdc.gov/Concussion).

# PRE-PARTICIPATION PHYSICAL EVALUATION HISTORY FORM

(Note: This form is to be filled out by the patient and parent prior to seeing the physician. The physician should keep a copy of this form in the chart for their records).

Date of Exam:			
Name:			Date of Birth:
Sex:	Age:	Grade:	School:
Medicines and Allergies: Please list all of the prescription and over-the-counter medicines and supplements (herbal and nutritional) that you are currently taking:			Sport(s):
Do you have any allergies: Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, please identify specific allergy below:			
<input type="checkbox"/> Medicines:		<input type="checkbox"/> Pollens:	<input type="checkbox"/> Food: <input type="checkbox"/> Stinging Insects:

**Explain "Yes" answers below. Circle questions you do not know the answer to.**

GENERAL QUESTIONS	Yes	No
1. Has a doctor ever denied or restricted your participation in sports for any reason?		
2. Do you have any ongoing medical conditions? If so, please identify below: <input type="checkbox"/> Asthma <input type="checkbox"/> Anemia <input type="checkbox"/> Diabetes <input type="checkbox"/> Infections Other:		
3. Have you ever spent the night in the hospital?		
4. Have you ever had surgery?		
HEART HEALTH QUESTIONS ABOUT YOU	Yes	No
5. Have you ever passed out or nearly passed out DURING or AFTER exercise?		
6. Have you ever had discomfort, pain, tightness, or pressure in your chest during exercise?		
7. Does your heart ever race or skip beats (irregular beats) during exercise?		
8. Has a doctor ever told you that you have any heart problems? If so, check all that apply: <input type="checkbox"/> High blood pressure <input type="checkbox"/> A heart murmur <input type="checkbox"/> High cholesterol <input type="checkbox"/> A heart infection <input type="checkbox"/> Kawasaki disease <input type="checkbox"/> Other:		
9. Has a doctor ever ordered a test for your heart? (For example, ECG/EKG, echocardiogram)		
10. Do you get lightheaded or feel more short of breath than expected during exercise?		
11. Have you ever had an unexplained seizure?		
12. Do you get more tired or short of breath more quickly than your friends during exercise?		
HEART HEALTH QUESTIONS ABOUT YOUR FAMILY	Yes	No
13. Has any family member or relative died of heart problems or had an unexpected or unexplained sudden death before age 50 (including drowning, unexplained car accident, or sudden infant death syndrome)?		
14. Does anyone in your family have hypertrophic cardiomyopathy, Marfan syndrome, arrhythmogenic right ventricular cardiomyopathy, long QT syndrome, short QT syndrome, Brugada syndrome, or catecholaminergic polymorphic ventricular tachycardia?		
15. Does anyone in your family have a heart problem, pacemaker, or implanted defibrillator?		
16. Has anyone in your family had unexplained fainting, unexplained seizures, or near drowning?		
BONE AND JOINT QUESTIONS	Yes	No
17. Have you ever had an injury to a bone, muscle, ligament, or tendon that caused you to miss a practice or a game?		
18. Have you ever had any broken or fractured bones or dislocated joints?		
19. Have you ever had an injury that required x-rays, MRI, CT scan, injections, therapy, a brace, a cast, or crutches?		
20. Have you ever had a stress fracture?		
21. Have you ever been told that you have or have you had an x-ray for neck instability or atlantoaxial instability? (Down syndrome or dwarfism)		
22. Do you regularly use a brace, orthotics, or other assistive device?		
23. Do you have a bone, muscle, or joint injury that bothers you?		
24. Do any of your joints become painful, swollen, feel warm, or look red?		
25. Do you have any history of juvenile arthritis or connective tissue disease?		

MEDICAL QUESTIONS	Yes	No
26. Do you cough, wheeze, or have difficulty breathing during or after exercise?		
27. Have you ever used an inhaler or taken asthma medicine?		
28. Is there anyone in your family who has asthma?		
29. Were you born without or are you missing a kidney, an eye, a testicle (males) or spleen, or any other organ?		
30. Do you have groin pain or a painful bulge or hernia in the groin area?		
31. Have you had infectious mononucleosis (mono) within the last month?		
32. Do you have any rashes, pressure sores, or other skin problems?		
33. Have you had a herpes or MRSA skin infection?		
34. Have you ever had a head injury or concussion?		
35. Have you ever had a hit or blow to the head that caused confusion, prolonged headaches, or memory problems?		
36. Do you have a history of seizure disorder?		
37. Do you have headaches with exercise?		
38. Have you ever had numbness, tingling, or weakness in your arms or legs after being hit or falling?		
39. Have you ever been unable to move your arms or legs after being hit or falling?		
40. Have you ever become ill while exercising in the heat?		
41. Do you get frequent muscle cramps when exercising?		
42. Do you or someone in your family have sickle cell trait or disease?		
43. Have you had any problems with your eyes or vision?		
44. Have you had any eye injuries?		
45. Do you wear glasses or contact lenses?		
46. Do you wear protective eyewear, such as goggles or a face shield?		
47. Do you worry about your weight?		
48. Are you trying to or has anyone recommended that you gain or lose weight?		
49. Are you on a special diet or do you avoid certain types of foods?		
50. Have you ever had an eating disorder?		
51. Do you have any concerns that you would like to discuss with the doctor?		
FEMALES ONLY	Yes	No
52. Have you ever had a menstrual period?		
53. How old were you when you had your first menstrual period?		
54. How many periods have you had in the last 12 months?		
<p align="center"><b>Explain "Yes" answers here:</b></p>		

<b>I hereby state that, to the best of my knowledge, my answers to the above questions are complete and correct.</b>		
Signature of Athlete:	Signature of Parent(s) or Guardian:	Date:

# PRE-PARTICIPATION PHYSICAL EVALUATION PHYSICAL EXAMINATION FORM

Name:	Date of Birth:
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**Physician Reminders:**

1. Consider additional questions on more sensitive issues.
  - Do you feel stressed out or under a lot of pressure?
  - Do you ever feel sad, hopeless, depressed, or anxious?
  - Do you feel safe at your home or residence?
  - Have you ever tried cigarettes, chewing tobacco, snuff, or dip?
  - During the past 30 days, did you use chewing tobacco, snuff or dip?
  - Do you drink alcohol or use any other drugs?
  - Have you ever taken anabolic steroids or used any other performance supplements?
  - Have you ever taken any supplements to help you gain or lose weight or improve your performance?
  - Do you wear a seat belt, use a helmet, and use condoms?
2. Consider reviewing questions on cardiovascular symptoms (Questions 5-14).

**EXAMINATION**

Height:	Weight:	<input type="checkbox"/> Male	<input type="checkbox"/> Female
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BP: / ( / )	Pulse:	Vision: R 20/ L 20/	Corrected: <input type="checkbox"/> Yes <input type="checkbox"/> No
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<b>MEDICAL</b>	<b>NORMAL</b>	<b>ABNORMAL FINDINGS</b>
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Appearance • Marfan stigmata (kyphoscoliosis, high-arched palate, pectus excavatum, arachnodactyly, arm span>height, hyperlaxity, myopia, MVP, aortic insufficiency)		
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Eyes/Ears/Nose/Throat • Pupils equal • Hearing		
--	--	--

Lymph Nodes		
-------------	--	--

Heart* • Murmurs (auscultation standing, supine, +/- Valsalva) • Location of point of maximal pulse (PMI)		
---	--	--

Pulses • Simultaneous femoral and radial pulses		
--	--	--

Lungs		
-------	--	--

Abdomen		
---------	--	--

Genitourinary (males only)**		
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Skin • HSV, lesions suggestive of MRSA, tinea corporis		
---	--	--

Neurologic***		
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<b>MUSCULOSKELETAL</b>	<b>NORMAL</b>	<b>ABNORMAL FINDINGS</b>
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Neck		
------	--	--

Back		
------	--	--

Shoulder/arm		
--------------	--	--

Elbow/forearm		
---------------	--	--

Hip/thigh		
-----------	--	--

Knee		
------	--	--

Leg/ankle		
-----------	--	--

Foot/toes		
-----------	--	--

Functional • Duck-walk, single leg hop		
---	--	--

\* Consider ECG, echocardiogram, and referral to cardiology for abnormal cardiac history or exam; \*\*Consider GU exam if in private setting. Having third party present is recommended.  
 \*\*\*Consider cognitive evaluation or baseline neuropsychiatric testing if a history of significant concussion.

<input type="checkbox"/> Cleared for all sports without restriction.
--

<input type="checkbox"/> Cleared for all sports without restriction <b>with recommendations for further evaluation or treatment for:</b>
--

<input type="checkbox"/> Not Cleared
--------------------------------------

<input type="checkbox"/> Pending further evaluation
---

<input type="checkbox"/> For any sports
---

<input type="checkbox"/> For certain sports (please list):
--

Reason:
---------

Recommendations:
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**I have examined the above-named student and completed the pre-participation physical evaluation. The athlete does not present apparent clinical contraindications to practice and participate in the sport(s) as outlined above. A copy of the physical exam is on record in my office and can be made available to the school at the request of the parents. If conditions arise after the athlete has been cleared for participation, the physician may rescind the clearance until the problem is resolved and the potential consequences are completely explained to the athlete (and parents/guardians).**

Name of Physician (type/print):	Date:
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Address:	Phone:
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Signature of Physician (MD/DO/ARNP/PA/Chiropractor):
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## PRE-PARTICIPATION PHYSICAL EVALUATION

# Missouri State High School Activity Association (MSHSAA) Eligibility and Authorization Statement

### STUDENT AGREEMENT (Regarding Conditions for Participation)

This application to represent my school in interscholastic athletics is entirely voluntary on my part and is made with the understanding that I have studied and understand the eligibility standards that I must meet to represent my school and that I have not violated any of them.

I have read, understand, and acknowledge receipt of the MSHSAA brochure entitled "How to Maintain and Protect Your High School Eligibility," which contains a summary of the eligibility rules of the MSHSAA. (I understand that a copy of the *MSHSAA Handbook* is on file with the principal and athletic administrator and that I may review it in its entirety, if I so choose. All MSHSAA by-laws and regulations from the *Handbook* are also posted on the MSHSAA website at [www.mshsaa.org](http://www.mshsaa.org)).

I understand that a MSHSAA member school must adhere to all rules and regulations that pertain to school-sponsored, interscholastic athletics programs, and I acknowledge that local rules may be more stringent than MSHSAA rules.

I also understand that if I do not meet the citizenship standards set by the school or if I am ejected from an interscholastic contest because of an unsportsmanlike act, it could result in me not being allowed to participate in the next contest or suspension from the team either temporarily or permanently.

I understand that if I drop a class, take course work through Post -Secondary Enrollment Option, Credit Flexibility, or other educational options, this action could affect compliance with MSHSAA economic standards and my eligibility.

I understand that participation in interscholastic athletics is a privilege and not a right. As a student athlete, I understand and accept the following responsibilities:

- I will respect the rights and beliefs of others and will treat others with courtesy and consideration.
- I will be fully responsible for my own actions and the consequences of my actions.
- I will respect the property of others.
- I will respect and obey the rules of my school and laws of my community, state, and country.
- I will show respect to those who are responsible for enforcing the rules of my school and the laws of my community, state, and country.

I have completed and/or verified that part of this certificate which requires me to list all previous injuries or additional conditions that are known to me which may affect my performance in so representing my school, and I verify that it is correct and complete.

Signature of Athlete:

Date:

### PARENT PERMISSION (Authorization for Treatment, Release of Medical Information, and Insurance Information)

**Informed Consent:** By its nature, participation in interscholastic athletics includes risk of serious bodily injury and transmission of infectious disease such as HIV and Hepatitis B. Although serious injuries are not common and the risk of HIV transmission is almost nonexistent in supervised school athletic programs, it is impossible to eliminate all risk. Participants must obey all safety rules, report all physical and hygiene problems to their coaches, follow a proper conditioning program, and inspect their own equipment daily. **PARENTS, GUARDIANS, OR STUDENTS WHO MAY NOT WISH TO ACCEPT RISK DESCRIBED IN THIS WARNING SHOULD NOT SIGN THIS FORM. STUDENTS MAY NOT PARTICIPATE IN MSHSAA- SPONSORED SPORT WITHOUT THE STUDENT'S AND PARENT'S/GUARDIAN/S SIGNATURE.**

I understand that in the case of injury or illness requiring transportation to a health care facility, a reasonable attempt will be made to contact the parent or guardian in the case of the student-athlete being a minor, but that, if necessary, the student-athlete will be transported via ambulance to the nearest hospital.

We hereby give our consent for the above student to represent his/her school in interscholastic athletics. We also give our consent for him/her to accompany the team on trips and will not hold the school responsible in case of accident or injury whether it be en route to or from another school or during practice or an interscholastic contest; and we hereby agree to hold the school district of which this school is a part and the MSHSAA, their employees, agents, representatives, coaches, and volunteers harmless from any and all liability, actions, causes of action, debts, claims, or demands of every kind and nature whatsoever which may arise by or in connection with participation by my child/ward in any activities related to the interscholastic program of his/her school.

If we cannot be reached and in the event of an emergency, we also give our consent for the school to obtain through a physician or hospital of its choice, such medical care as is reasonably necessary for the welfare of the student, if he/she is injured in the course of school athletic activities. We authorize the release of necessary medical information to the physician, athletic trainer, and/or school personnel related to such treatment/care. We understand that the school may not provide transportation to all events, and permit / do not permit (CIRCLE ONE) my child to drive his/her vehicle in such a case.

To enable the MSHSAA to determine whether the herein named student is eligible to participate in interscholastic athletics in the MSHSAA member school, I consent to the release of the MSHSAA any and all portions of school record files, beginning with seventh grade, of the herein named student, specifically including, without limiting the generality of the foregoing, birth and age records, name and residence address of parent(s) or guardian(s), residence address of the student, academic work completed, grades received, and attendance data.

We confirm that this application for the above student to represent his/her school in interscholastic athletics is made with the understanding that we have studied and understand the eligibility standards that our son/daughter must meet to represent his/her school and that he/she has not violated any of them. We also understand that if our son/daughter does not meet the citizenship standards set by the school or if he/she is ejected from an interscholastic contest because of an unsportsmanlike act, it could result in him/her not being allowed to participate in the next contest or suspension from the team either temporarily or permanently.

I consent to the MSHSAA's use of the herein named student's name, likeness, and athletic-related information in reports of contests, promotional literature of the Association and other materials and releases related to interscholastic athletics.

We further state that we have completed that part of this certificate which requires us to list all previous injuries or additional conditions that are known to us which may affect this athlete's performance or treatment and we certify that it is correct and complete.

The MSHSAA By-Laws provide that a student shall not be permitted to practice or compete for a school until it has verification that he/she has basic health/accident insurance coverage, which includes athletics. Our son/daughter is covered by basic health/accident insurance for the current school year as indicated below:

Name of Insurance Company:	Policy Number:
Signature of Parent(s) or Guardian:	Date:

#### PARENT AND STUDENT SIGNATURE (Concussion Materials)

We have received and read the MSHSAA materials on Concussion, which includes information on the definition of a concussion, symptoms of a concussion, what to do if you have a concussion, and how to prevent a concussion.

Signature of Athlete:	Date:
Signature of Parent(s) or Guardian:	Date:

#### EMERGENCY CONTACT INFORMATION

Parent(s) or Guardian	Address	Phone Number
Name of Contact	Relationship to Athlete	Phone Number
Name of Contact	Relationship to Athlete	Phone Number



