Parent/Guardian and Student-Athlete

Concussion Education Program

2020-2021
INTRODUCTION

• Virginia’s Student-Athlete Protection Act (Code of Virginia 22.1-271.5) requires completion of a concussion education program by parents/guardians and students before the student can participate in school-sponsored athletics

• Program overview
  – Concussion management
  – Infectious disease prevention
  – Sudden cardiac arrest
  – Environmental conditions (lightning, heat and cold)
  – Steroids and supplements
  – Mental health (depression, suicide)
CONCUSSION RECOGNITION
WHAT IS A CONCUSSION?

“Sport related concussion is a traumatic brain injury induced by biomechanical forces.” (Berlin 5th Consensus Statement on Concussion in Sport, 2016)

- May be caused by a direct blow to the head, face, neck or elsewhere on the body
- Concussion is not usually associated with structural damage to the brain; Routine imaging (CT scans, MRIs, x-rays) likely normal
- Typically features rapid onset of symptoms that may evolve over minutes, hours or days
- Concussion may or may not involve a loss of consciousness (LOC)
- Concussion results in a wide range of symptoms lasting a few minutes, days, weeks, months or longer in some cases
RECOGNIZING A CONCUSSION

• Early recognition of symptoms is essential to safe, effective concussion management

• If a concussion is suspected, the student should stop activity and report the injury to an athletic trainer or another adult immediately

• Symptoms may occur immediately following the trauma to the head/body, develop hours or even days later, and change over time

• Visits to the hospital are necessary when signs and symptoms worsen in the hours following the injury
  – A negative or “normal” CT scan or MRI does NOT mean you do not have a concussion
COMMON CONCUSSION SIGNS AND SYMPTOMS

<table>
<thead>
<tr>
<th>Physical</th>
<th>Cognitive</th>
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<tbody>
<tr>
<td>❑ Headache</td>
<td>❑ Confusion</td>
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<tr>
<td>❑ Nausea/vomiting</td>
<td>❑ Feeling “foggy”</td>
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<tr>
<td>❑ Dizziness</td>
<td>❑ Feeling slowed down</td>
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<tr>
<td>❑ Balance problems</td>
<td>❑ Difficulty concentrating</td>
</tr>
<tr>
<td>❑ Vision/hearing problems</td>
<td>❑ Difficulty with communication,</td>
</tr>
<tr>
<td>❑ Fatigue</td>
<td>reading/writing</td>
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<tr>
<td>❑ Sensitivity to light/noise</td>
<td>Difficulty with problem solving and</td>
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<tr>
<td></td>
<td>planning</td>
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<td></td>
<td>Memory loss</td>
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<table>
<thead>
<tr>
<th>Behavioral/Emotional</th>
<th>Sleep</th>
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</thead>
<tbody>
<tr>
<td>❑ More emotional</td>
<td>❑ Drowsiness</td>
</tr>
<tr>
<td>❑ Irritability</td>
<td>❑ Sleeps too much</td>
</tr>
<tr>
<td>❑ Depression/Anxiety</td>
<td>❑ Sleeping too little</td>
</tr>
<tr>
<td>❑ Anger/easily frustrated</td>
<td>❑ Trouble falling asleep</td>
</tr>
<tr>
<td>❑ Nervousness</td>
<td></td>
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<tr>
<td>❑ Apathetic</td>
<td></td>
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<tr>
<td>❑ Impulsivity</td>
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Concussions may also increase symptoms of conditions an athlete already has, such as depression, anxiety, ADD/ADHD.
WHEN TO RUSH TO THE HOSPITAL

These are signs of a **MEDICAL EMERGENCY**!

- Headaches that worsen
- Repeated vomiting
- Seizures
- Neck pain
- Very drowsy
- Significant irritability
- Unusual behavior changes
- Slurred speech
- Weakness/numbness in arms/legs

If symptoms get worse following the injury

**CALL 911 or GO TO THE HOSPITAL**
• Suspect a concussion if a student:
  – BEHAVES DIFFERENTLY following trauma to the head or body
  – EXPERIENCES SYMPTOMS (headache, light sensitivity, etc.)
  – HAS TROUBLE CONCENTRATING OR SLEEPING

• Remove from activity and report the injury to the athletic trainer or another adult

WHEN IN DOUBT, SIT IT OUT
CONCUSSION MANAGEMENT: OVERVIEW
<table>
<thead>
<tr>
<th>Role of the Student</th>
<th>Role of the Parent</th>
<th>Role of the Athletic Trainer (AT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Be aware of signs and symptoms of head injuries</td>
<td>● Recognize and report any signs and symptoms or changes in behavior to the school’s licensed athletic trainer</td>
<td>● Athletic Trainers are qualified healthcare professionals who can evaluate and create a treatment plan for student-athletes experiencing a concussion</td>
</tr>
<tr>
<td>● Understand importance of early recognition- Don’t hide it, report it!</td>
<td>● Parents are urged to support the recommended modifications for progressive return to academics and physical activity as detailed by the athletic trainer</td>
<td>● Determine the appropriate levels of physical and cognitive rest necessary for the athlete.</td>
</tr>
<tr>
<td>● Be AWARE of teammates on and off the field, specifically any behavior that is out of the ordinary for them and REPORT problems</td>
<td>● Continue to provide feedback, share observations with school staff (athletic trainer, counselors, teachers, etc.)</td>
<td>● Initiate communication to school staff in order to make recommendations on modifications for progressive return to academics and physical activity and guide you throughout the process</td>
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</tbody>
</table>

Friends don’t let friends play with signs of a concussion!
WHEN A CONCUSSION IS SUSPECTED

- There is no single "best" test to diagnose a concussion; evaluation is a complex process.
- ATs will use a variety of tools to evaluate students from different perspectives, including:
  - Reaction Time
  - Memory
  - Balance
  - Eye tracking
  - Self-reporting symptoms
- Parents will be given written instructions which includes an overview of your child's current symptoms, information regarding next steps and contact information for your school’s AT.
- The AT will initiate communication with appropriate school staff members.
IF YOU SEE A PHYSICIAN OR CONCUSSION SPECIALIST

• The athletic trainer (AT) may refer to a physician or concussion specialist if needed
• If you decide to see a physician on your own, notify the athletic trainers at your school before you go, as they are happy to share the results of their evaluations
• Always report to the athletic trainers following your visits
  – As with any physician visit, please share any documentation with the athletic trainer
Computer-based neurocognitive assessment:
- Is used to examine memory and processing speed
- Is one of several tools used by athletic trainers to evaluate students with a concussion
- *Does not diagnose or provide clearance for activity by itself*

Post-injury neurocognitive assessments are administered as needed during student recovery.

Neurocognitive assessments require students to focus their attention, read instructions and complete various subtests with practice opportunities prior to each task.
• Student-athletes may be asked to complete a baseline neurocognitive assessment
  – Athletic trainers and team coaches will schedule baseline testing early in the season
• While not a requirement to play sports, student-athletes are strongly encouraged to complete a baseline.
  – Baseline tests provide information that is helpful during the recovery process
• Questions or concerns regarding neurocognitive assessment should be directed to the school’s athletic trainers.
KEYS TO CONCUSSION TREATMENT

- The AT will guide this process and you can expect:
  - A balance between rest and a gradual increase in overall activity (academic and physical) without an associated increase in symptoms
  - Working with teachers to help make current work more manageable and/or develop a plan to make up any missed assignments
  - A progressive return to athletic activities as symptoms resolve
  - Regular, effective communication between parents/guardians, medical professions, and school staff
FOLLOWING A CONCUSSION...

- Students experiencing the following symptoms may benefit from resting at home following a concussion:
  - Trouble sleeping
  - Persistent headache
  - Sensitivity to light/noise
  - Feeling foggy
  - Dizziness or lightheadedness
  - More irritable than usual
- Students who sleep well and feel up to it should attend school.
- Do not use any pain medications unless directed by a medical professional.
- When in doubt, contact the licensed athletic trainer for further information.
FOLLOWING A CONCUSSION…

• The goal is to resume “normal” daily SCHEDULE (regular sleep, attending school, school work, household chores, etc.) as soon as possible WITHOUT worsening symptoms

• The return to “normal” physical ACTIVITIES such as practice and competitions is determined by the presence of symptoms and will be guided by the AT

More Symptoms = Less Activity | Fewer symptoms = More Activity
FOLLOWING A CONCUSSION...

- It is common for symptoms to worsen unexpectedly during or after participating in new activities or if the intensity of a familiar activity is increased
  - It is important to recognize if/when this occurs
  - If this happens, the athlete MUST stop the activity and report to the AT for further instructions
- If rest does not reduce symptom intensity, the student may benefit from going home
- Remember, each case is unique and each individual will progress at their own rate
RETURN TO LEARN
WHAT IS RETURN TO LEARN?

• Systematic/progressive reintroduction of cognitive and academic activities
• Usually includes series of distinct stages lasting days or weeks, occasionally longer and may include the following:
  – Rest at home/school
  – Limited school attendance/classroom participation
  – Changes in the amount/type of school work and tests
  – Additional academic and instructional support
HOW DOES RETURN TO LEARN WORK?

- Collaborative effort involving the student, parents/guardians, AT, medical professionals and school staff
  - Effective communication is critical!
- As the student recovers, academic demands are increased in a gradual, progressive fashion
- Rate of progression determined by the presence or resolution of symptoms
- Students are expected to be participating normally in the classroom before fully returning to sports
RETURN TO PLAY
WHEN IS IT SAFE TO RETURN TO PLAY?

- Student no longer exhibits any signs or symptoms consistent with concussion, **AND**
- Student receives written release from an appropriate licensed health care provider (Athletic trainer, physician [MD or DO], nurse practitioner, physician assistant or neuropsychologist), **AND**
- Student successfully completes return to play progression
  - Period of supervised, gradually intensifying exercise
  - Process typically takes a MINIMUM of 5-7 school days
    - Usually 24 hours between stages
    - Progression to next stage based on presence of symptoms
    - Remember- each concussion is different and will progress at different rates.
### RETURN TO PHYSICAL ACTIVITY

Progression based on symptoms and Return to Learn status; Stages may take 1 or more days

<table>
<thead>
<tr>
<th>Rehabilitation Stage</th>
<th>Functional Exercise</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. No activity</td>
<td>Complete physical and cognitive rest</td>
<td>Recovery</td>
</tr>
<tr>
<td>2. Light aerobic activity</td>
<td>Walking, swimming, stationary cycling. Mild intensity</td>
<td>Increase HR</td>
</tr>
<tr>
<td>3. Sport-specific activity</td>
<td>Running or skating drills. No head impact activities</td>
<td>Add movement</td>
</tr>
<tr>
<td>4. Non-contact training drills</td>
<td>Progression to more complex training drills</td>
<td>Exercise, coordination, cognitive load</td>
</tr>
<tr>
<td>5. Full contact practice</td>
<td>Following medical clearance. Normal training activities</td>
<td>Restore confidence, assessment of functional skills by coaching staff</td>
</tr>
<tr>
<td>6. Return to play</td>
<td>Normal game play</td>
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</tbody>
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These stages must be supervised by an Athletic Trainer
• Regular evaluation is essential
  – Licensed athletic trainers will re-evaluate and provide recommendations on a regular basis
• Is the student ready to return to normal activities?
  – Teacher feedback
    • No need for additional instructional supports
    • Classroom participation back to “normal”
      – What was the student like before? What is the student like now?
  – Athlete and Parent feedback
    • Is the parent ready for the student to return?
    • Is the student physically and mentally ready to return?
  – Medical professional feedback
    • Has student completed Return to Learn and Return to Play progressions
LONG-TERM CONCERNS FOLLOWING A CONCUSSION
The relationship between concussion and any possible long-term consequences remains unclear. Areas of concern include:
- Persistent concussion-related symptoms
- Development of mental health conditions
- Occurrence of chronic, concussion-related changes
Many questions exist regarding which individuals may suffer long-term complications and under what circumstances.
While there are still a lot of questions about concussions, medical experts agree on the following:

- Early identification and proper management is critical to minimizing both short and long-term consequences
- Returning to activity (physical and cognitive) too soon can negatively impact recovery
- Physical activity and sport participation minimizes the risk of certain diseases and is essential to promoting a healthy lifestyle
INFECTIOUS DISEASE
The nature of sports leads to an increased risk of communicable infections, particularly skin infection.

Skin infections include, but are not limited to, ringworm (fungal infection), staph, impetigo (bacterial infections), herpes (viral infections), MRSA and conjunctivitis (pink eye).

Transmission of disease and skin infection can be minimized when athletes practice proper hygiene, including showering daily after practice.
PREVENTING SPREAD OF INFECTIOUS DISEASE

- Carefully and thoroughly inspect your body for lesions or signs of skin infection daily
- Lesions identified during self-inspections or observed on a teammate should be brought to the immediate attention of the coach and the school’s athletic trainer
- Follow the direction of the athletic trainer regarding participation in practices and competition if diagnosed with a communicable infection
TIPS FOR PREVENTING THE SPREAD OF INFECTIOUS DISEASE

- Shower with soap and water immediately following practices or competitions
- Do not share clothes, towels, soap, razors, deodorant, cosmetics, or other personal care items
- All clothes/towels worn or used during practice and competition should be washed daily
- Drink from team water bottles by squirting, not sucking or slurping
SUDDEN CARDIAC ARREST
Sudden Cardiac Arrest (SCA) occurs when the heart stops beating.

Pre-participation screening should include any family history of sudden cardiac arrest as well as any personal episodes of exertional syncope (fainting), chest pain or shortness of breath.

- It is essential that the licensed athletic trainers be aware of any athlete with a family history of SCA.
Starting CPR and using an AED as soon as possible are the best treatments for SCA

- Athletic trainers have access to an AED and an established Emergency Action Plan in case of emergency
- FCPS has over 600 AEDs in schools and offices
ENVIRONMENTAL CONDITIONS
ENVIRONMENTAL CONDITIONS

• Lightning
  – The most effective way to prevent lightning injury is to remain or move indoors during lightning activity
  – Each school has an established Emergency Action Plan identifying the safe shelter closest to outdoor athletic venues in case of lightning

• Heat
  – Athletes should gradually adapt to the heat, especially those wearing protective equipment
  – Athletes should hydrate before, during and after activity
ENVIRONMENTAL CONDITIONS

- Cold
  - Student-athletes should be properly dressed when participating outdoors during cold weather
  - Proper attire includes:
    - Long sleeves and pants
    - Hats and gloves
    - Sweatshirts and jackets
  - Students not properly dressed for the weather may not be allowed to participate that day
STEROIDS AND SUPPLEMENTS
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• **Anabolic Steroids** are synthetic (man-made) substances designed to increase muscle mass and male characteristics
  - Steroids are a class of drug used to treat a variety of medical conditions
  - Medical doses are 10-100 times lower than doses used to enhance performance
• The penalty for using anabolic steroids without a prescription is 2 years disqualification from sports.
  - This is a VA State Law and applies to Virginia universities as well
  - Signs and symptoms of steroid usage: severe acne, mood swings, aggression, depression, very fast strength gains, change in physical characteristics
STEROIDS AND SUPPLEMENTS

• **Supplements** are natural and synthetic substances designed to improve athletic performance and/or provide an energy boost
  ― Generally legal, but may be illegal for sale to minors
  ― Most manufacturers indicate these products are not intended for individuals under the age of 18
• The National Federation of High Schools strongly recommends that **ENERGY PRODUCTS NOT** be used prior to, during, or after athletic activity
  ― Energy products have been linked to heart arrhythmia (irregular and/or rapid heart rate), high blood pressure and heart attacks; liver problems; central nervous system issues; gastrointestinal issues and dehydration.
• The Virginia High School League (VHSL) prohibits the consumption of energy drinks during VHSL practices or competitions
PROMOTING MENTAL HEALTH AND WELLNESS
CAUSES OF ANXIETY AND DEPRESSION

• Some have atypical activity in areas of the brain that deal with fear and emotional regulation
• Females are generally more at risk for developing anxiety disorders
• Genetics and temperament play a role
• Environmental factors (stressful environment, witnessed traumatic event)
• Experiences play a part (observe others, overly protective/controlling adults, learning to avoid situations)
• Styles of thinking – negative, unrealistic
SIGNS OF ANXIETY

- Have headaches, stomachaches, other pain
- Trouble falling or staying asleep
- Difficulty concentrating and remembering information
- Worry excessively
- Feel tired
- Be irritable or angry – may become aggressive or yell
- Cry easily
- Sweat a lot or have shortness of breath
- Tremble/shake
- Easily upset by mistakes
- Avoidance/withdrawal
## SIGNS OF DEPRESSION

Every person has experienced some of these feelings; however, when many of these occur at once for a period of several weeks, it is time to seek professional help.

<table>
<thead>
<tr>
<th>Poor performance in school</th>
<th>Low self esteem or guilt</th>
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</thead>
<tbody>
<tr>
<td>Withdrawal from friends and activities</td>
<td>Indecision, lack of concentration, forgetfulness</td>
</tr>
<tr>
<td>Sadness and hopelessness</td>
<td>Restlessness or agitation</td>
</tr>
<tr>
<td>Lack of enthusiasm, energy, or motivation</td>
<td>Changes in eating or sleeping patterns</td>
</tr>
<tr>
<td>Anger or rage</td>
<td>Substance abuse</td>
</tr>
<tr>
<td>Difficulty dealing with criticism</td>
<td>Problems with authority</td>
</tr>
<tr>
<td>Feelings of being unable to reach goals</td>
<td>Suicidal thoughts or actions</td>
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</table>
Teens who attempt suicide often have long-standing problems and the attempt is triggered by a specific event that sends them “over the top.”

- No one factor or event causes suicide.

However, there are several risk factors that have been identified, such as:

- History of substance abuse
- Conduct disorder
- Depression
- Access to firearms/weapons
- Hopelessness
- Impulsivity
ADDITIONAL CONTRIBUTING FACTORS

- Abuse or trauma exposure
- Academic difficulties or school failure
- Anniversary of the death of a loved one
- Breakup with a significant other
- Bullying
- Disappointment or rejection

- Extended separation from friends or family
- Family conflict/dysfunction
- Getting into legal trouble
- Knowing someone who died by suicide
- Loss or death of a loved one
- Serious illness or injury
WARNING SIGNS OF SUICIDE

- Making suicide threats
- Giving away valued possessions
- Overwhelming sense of guilt and/or shame
- Suddenly seeming “fine” when they have been feeling very depressed
- Being obsessed with death

- Severe drop in school performance
- Changed eating or sleeping patterns
- Creating poems, essays, or drawings that refer to death
- Making dramatic changes in personality or appearance
- Engaging in irrational, bizarre behavior
<table>
<thead>
<tr>
<th>TIPS TO INCREASE MENTAL WELLNESS</th>
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</thead>
<tbody>
<tr>
<td>❑ Exercise</td>
</tr>
<tr>
<td>❑ Eat a healthy diet</td>
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<tr>
<td>❑ Have a support network</td>
</tr>
<tr>
<td>❑ Get enough sleep</td>
</tr>
<tr>
<td>❑ Engage in relaxation activities</td>
</tr>
<tr>
<td>❑ Be well-prepared</td>
</tr>
<tr>
<td>❑ Set realistic, attainable goals</td>
</tr>
<tr>
<td>❑ Be optimistic – look at the bright side of things</td>
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</tbody>
</table>
BENEFITS OF REGULAR EXERCISE

Research has proven many benefits from exercise in addition to overall fitness:

- Increased alertness
- Increased amount of “feel good” chemicals in brain
- Improved mood
- Improved self-confidence and esteem
- Improved sense of independence and control
- Improved social support from others
- Decreased anxiety/depression
- Decreased probability of developing mental health disorders
WHAT CAN FRIENDS & FAMILY DO?

- Be available to listen and talk with your child
  - Validate their feelings and let them know you care, even if you do not agree or think that the situation is not a big deal.
- Set clear & consistent boundaries.
- Communicate high expectations, but avoid applying excessive pressure or stress on the student.
- Know where your children are and with whom they are hanging out.
- Praise them and recognize when they do a good job, but don’t harp on negative things, especially regarding sport performance.
- Teach “life skills” (respect, responsibility, adaptive/coping skills) and build resilience.
- Provide caring and support.
- Provide opportunities for meaningful participation (volunteer, mentor, extracurricular activities, etc.)
- Increase social bonding.
WHAT CAN FRIENDS & FAMILY DO?

• If you think your child might be anxious or depressed, ask them if they’ve thought about suicide

• Know warning signs- remove weapons & pills from your home

• Seek professional help from a doctor, mental health professional or community mental health resources

• People with clinical depression can be treated successfully with medication and/or talk therapy.

• Keep teachers, psychologists, doctors, and coaches informed, so we can work together to support your child
MENTAL HEALTH RESOURCES
24/7 EMERGENCY NUMBERS

Incase of a life threatening emergency, call 911

CrisisLink Regional Hotline: 703-527-4077
CrisisText: Text NEEDHELP to 85511
Dominion Hospital Emergency Room: 703-536-2000
Inova Emergency Services: 703-289-7560
Mobile Crisis Unit: 1-844-627-4747
National Suicide Prevention Lifeline: 1-800-273-TALK or 1-800-SUICIDE
Merrifield Center Emergency Services: 703-573-5679
TTY dial 711
RESILIENCY
An ability to recover from or adjust easily to misfortune or change <emotional resilience>


A safety net
RESILIENCE: an ability to recover from or adjust easily to misfortune or change <emotional resilience>


ATTITUDES
• Be optimistic
• Build connections
• Welcome change
• Have a sense of humor
• Express gratitude
• Accept help

SKILLS
• Problem solver
• Communicator
• Emotionally Intelligent
• Practice Mindfulness

LIFESTYLE
• Stay active, eat well and get plenty of sleep
RESOURCES

• Additional information about the FCPS Athletic Training Program and the topics covered in the presentation can be found online at www.fcps.edu/sports

• Additional information on concussions is available from:
  – Centers for Disease Control and Prevention: http://www.cdc.gov/headsup/index.html
• Thank you for completing the online FCPS Concussion Education Program for Parents and Student-Athletes

• If you have any questions, please contact the licensed athletic trainer at your school

• Please print the next slide, sign it (both student and parent/guardian) and submit to your school along with your physical
I verify that I have received, reviewed and understand the information contained in the FCPS Concussion Education Presentation

2020-2021 School Year

Student name (print) ____________________________________________________________

School ___________________________ Student ID# __________________

Student Signature ___________________________ Date________________

Parent/Guardian
Signature ___________________________ Date________________

Please return this page to the Activities Office along with your physical!