Waukesha School District: Sports Medicine Resource Handbook For Coaches

This is a collection of best practices and is not intended to be construed as policy or in place of medical advice but is intended to serve as an educational tool and reference material for high school & youth coaches. This information is thorough, will be updated when appropriate, and is not all-inclusive.

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https://chsaanow.com/documents/2022/8/9/SMAC_HANDBOOK_57_.pdf?id=1254

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Children's Wisconsin Resources

Meet the High School Licensed Athletic Trainers

- Missy Hansen MS, LAT
- Waukesha West HS
- Mhansen2@childrenswi.org

- Kyla Renz, LAT
- Waukesha North HS
- Krenz@childrenswi.org

- Caitlin Weber, LAT
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Children's Wisconsin Locations and Phone Numbers

To schedule an appointment, please call:

- Sports Line: 414-604-7512, x 3
- Concussion Line: 414-337-8000, x 3
- Hours of Phone Lines: M-F, 8am-4pm

LOCATIONS

Children's Wisconsin Emergency Room

8915 W. Connell Court, Milwaukee, WI 53226
Hours: 24/7
Emergency medicine, X-ray imaging, labs and advanced imaging (CT/MRI) available

Delafield Clinic

3195 Hillside Drive, Delafield, WI 53018
Phone: 262-646-9977
Hours: M-F 5pm-10pm Sat-Sun 11am-5pm
Urgent care, Concussion Program, Sports medicine, orthopedic Surgery physical Therapy, x-ray imaging and labs available.

New Berlin Urgent Care

4855 S Moorland Rd., 3rd Floor, New Berlin, WI 53151
Phone: 262-432-7599
Hours: M-F 5pm-10pm Sat-Sun 11am-5pm
Urgent Care, x-ray imaging, labs, and advance imaging (CT/MRI) available

Greenfield Clinic

3365 S 103Rd St, 2nd Floor, Milwaukee, WI 53227
Phone 414-607-5280
Hours: M-F 8am-4:30pm (scheduled appointments)
Concussion Program, Sports medicine, orthopedic Surgery physical Therapy, x-ray imaging and labs available

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Children's Wisconsin

Sports Nutrition

Children's Wisconsin

Children's Wisconsin offers athletes ages 18 and under sports nutrition counseling services with a registered dietitian.

Counseling sessions are held with our registered dietitians, who are experts in helping young athletes manage healthy nutrition both during their sports season and in the offseason.

Our nutrition counseling services can help set your athlete up for success through:

- Hydration
- Injury recovery
- Eating for top performance
- Answering questions and concerns about proper diet

Schedule an appointment

Please call the Children's Wisconsin Sports Medicine line at (414) 604-7512, option 3. A formal referral is not typically necessary; however, if you have any issues scheduling or your insurance does require a referral entered, please contact us.

Payment

Nutrition counseling is an additional fee that will need to be paid at the time of service. Payment can be made by check or credit card. Nutrition counseling services may be covered by insurance. We will give you a receipt to submit to your insurance company for possible reimbursement. Please contact your health insurance company for more information. This visit is an out-of-pocket cost (not covered by insurance) for approximately $106.25 per visit.

Preparing for your appointment

There is no homework prior to this visit, but you are free to write down any questions or concerns you want to address and keep a food diary for several days prior.

Location

Children's Wisconsin Greenfield Clinic 3365 S. 103rd Street, Greenfield, WI 53227

childrenswi.org/sports-nutrition

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Children's Wisconsin

Sport Psychology Services

Children's Wisconsin

What is sport psychology?

Do you perform better in practice than in competition? Do you feel overly anxious before competing? Are you struggling with confidence upon your return from injury? Do you struggle with consistency in performance?

Sport psychology teaches you skills to perform more consistently in practices and competitions. It can also help athletes maintain motivation for a successful recovery from injury and a confident return to sport.

What can I expect from meeting with a sport psychologist?

Meetings typically last 50 minutes in duration. Athletes usually meet with sport psychologists 1-2 times per month, but the frequency of meetings is decided on by the athlete.

At the initial appointment, the sport psychologist will gather information regarding the athlete's goals, their background in sport, and their history of physical and emotional health. This approach to understanding the athlete as a whole aims to provide a treatment plan that best meets the athlete's needs.

How do I know if meeting with a sport psychologist is covered by insurance?

Athletes can consult their insurance company regarding coverage for behavioral health. Children's Wisconsin also obtains pre-certification for all patients prior to the first appointment. If your insurance does not certify the appointment, someone from Children's will notify you.

Is my information kept confidential?

Absolutely! Information shared in sport psychology appointments remains confidential. This means that information will not be provided to coaches, athletic trainers, or other people without your permission.

What if I have additional questions regarding sport psychology services?

Please don't hesitate to reach out to our sport psychologists with questions regarding services. They can be reached through the Children's Concussion line at (414) 604-7512.

childrenswi.org/sport-psych

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childrenswi.org/dermatology

Children's Wisconsin Dermatology

At Children's Wisconsin, our board-certified pediatric dermatologists work with referring providers and families to make the care of pediatric skin conditions appropriate, gentle and effective.

Our team also takes the time to make sure parents understand their child's skin condition and how to manage it.

What we diagnose and treat

Skin conditions and disorders, including:

- Acne
- Alopecia areata
- Atopic dermatitis
- Birthmarks
- Hemangiomas
- Herpes
- Ichthyosis
- Melanocytic nevi
- Molluscum
- Nevus sebaceous
- Perioral dermatitis
- Psoriasis
- Ringworm
- Scabies
- Spitz nevus
- Vascular malformations
- Vitiligo
- Warts
- Other skin problems

Program highlights

- Our team of board-certified dermatologists and specialty-trained physician assistants includes providers who are internationally known for their work in skin diseases.
- Some skin conditions require the expertise of multiple specialists for the best outcome. We offer a number of dedicated clinics to ensure children will be seen as quickly as possible, by the most appropriate specialists, in one visit:
  - Birthmarks and Vascular Anomalies Center
  - General Dermatology Clinic
  - Hemangiomas of Infancy Clinic
  - Hyperhidrosis Clinic
  - Laser Clinic
  - Neurofibromatosis Clinic
  - Surgery Clinic

Locations

- Delafield
- Kenosha
- Mequon
- Milwaukee
- New Berlin


Valerie Carlberg, MD


Yvonne Chiu, MD


Kristen Holland, MD


Stephen Humphrey, MD


Lean Lalor, MD


Dawn Siegel, MD


Brenda Hass-Rupp, PA-C


Gabrielle Karthauser, PA-C


Joree Ruiz, PA-C

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WAUKESHA SOUTH ATHLETICS - EMERGENCY ACTION PLAN

All coaches and event staff should be familiar with this document and their role and responsibility in an emergency.

An ***emergency*** is the need for Emergency Medical Services (EMS) to give further medical attention and/or transport an athlete to the hospital. It is important in these situations that coordination between the athletic trainer, coaches, administrators and student responders be effective. This guide is intended to delineate roles and outline the protocol to be followed should an emergency occur.

SITUATIONS WHEN TO CALL 911:

- An athlete is not breathing or has lost consciousness
- It is suspected that an athlete may have a neck or back injury
- An athlete has an open fracture (bone has punctured through the skin)
- Severe heat exhaustion or suspected heat stroke
- Severe bleeding that cannot be stopped

The highest person in the chain of command who is present at a scene will be the designated person in charge, or leader. That person is responsible for deciding whether or not to call 911, instructing others how they may be of help and will also be the person who stays with the athlete until EMS arrives.

WHEN PLACING A 911 CALL BE PREPARED TO:

- Give your name, location, and description of the emergency/injury.
- Give detailed directions for EMS, including location of entrance closest to the injury.
- DO NOT hang up until EMS has told you to do so.

THE LEADER SHOULD DESIGNATE PERSONS TO DO THE FOLLOWING:

- Stay with the injured athlete at all times.
- Call 911 (EMS).
- Get the AED (if necessary).
- Unlock all necessary gates so EMS can gain access quickly.
- Meet EMS at the entrance closest to the injury and assist them to the injured athlete.
- Call the parents and notify them of the injury.
- Fill out an accident report immediately following.

IMPORTANT INFORMATION

- **EMS Phone Number**: 911
- **Waukesha South HS Address:** 401 E Roberta Ave. Waukesha, WI 53186
- **Indoor Sports EMS Access:** Field House and Pool- Door 13
- **Outdoor Sports EMS Access: Practice Fields gate**- located by the entrance to the track
  - **Football Stadium gate**- located off of Tenny Ave.
  - **Soccer Stadium gate**- located behind Pick n Save
  - **Softball Field gate**- in the parking lot back side of school
- **Phone Locations:** Cell Phone, main office, classrooms, coach's offices, and the training room.
- **Training Room**: located inside the South west corner of the field house
  - Stocked with ice bags, ace wraps, tape, band-aids, gloves, and gauze.

AED ZONES

ZONE 1 – Field House, Pool, Main Building

Primary AED: By the Swim doors inside the field house or Athletic Trainer portable AED if available
Secondary AED: Cafeteria

ZONE 2 – Outdoor Practice Fields, Football Stadium, Soccer Stadium, Track and Field, and Softball Field

Primary AED: On Red shed btw football & soccer stadiums or Athletic Trainer portable AED if available
Secondary AED: Cafeteria

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WAUKESHA WEST ATHLETICS - EMERGENCY ACTION PLAN

All coaches and event staff should be familiar with this document and their role and responsibility in an emergency.

An ***emergency*** is the need for Emergency Medical Services (EMS) to give further medical attention and/or transport an athlete to the hospital. It is important in these situations that coordination between the athletic trainer, coaches, administrators and student responders be effective. This guide is intended to delineate roles and outline the protocol to be followed should an emergency occur.

SITUATIONS WHEN TO CALL 911:

- An athlete is not breathing or has lost consciousness
- It is suspected that an athlete may have a neck or back injury
- An athlete has an open fracture (bone has punctured through the skin)
- Severe heat exhaustion or suspected heat stroke
- Severe bleeding that cannot be stopped

The highest person in the chain of command who is present at a scene will be the designated person in charge, or leader. That person is responsible for deciding whether or not to call 911, instructing others how they may be of help and will also be the person who stays with the athlete until EMS arrives.

WHEN PLACING A 911 CALL BE PREPARED TO:

- Give your name, location, and description of the emergency/injury.
- Give detailed directions for EMS, including location of entrance closest to the injury.
- DO NOT hang up until EMS has told you to do so.

THE LEADER SHOULD DESIGNATE PERSONS TO DO THE FOLLOWING:

- Stay with the injured athlete at all times.
- Call 911 (EMS).
- Get the AED (if necessary).
- Unlock all necessary gates so EMS can gain access quickly.
- Meet EMS at the entrance closest to the injury and assist them to the injured athlete.
- Call the parents and notify them of the injury.
- Fill out an accident report immediately following.

IMPORTANT INFORMATION

- **EMS Phone Number**: 911
- **Waukesha West HS Address:** 3301 Saylesville Rd. Waukesha, WI 53188
- **Indoor Sports EMS Access:** Door #7 by the pool doors
- **Outdoor Sports EMS Access:** Gate #1 by football turf stadium
- **Phone Locations:** Cell Phone, main office, classrooms, coach's offices, and the training room.
- **Training Room**: located across from the concession stand outside the gymnasium
    - Stocked with ice bags, ace wraps, tape, band-aids, gloves, and gauze.

AED ZONES

ZONE 1 – **Field House, Pool, Main Building**
Primary AED: Field House Hallway

ZONE 2 – **Soccer Practice Fields, Football Practice Fields, Stadium, Baseball/Softball Practice Fields**
Primary AED: Stadium Bathrooms/Concession Stand in Brick Building OR outside varsity baseball dugout
Secondary AED: Field House Hallway

ZONE 3 – **Tennis Courts**
Primary AED: Auditorium/Music Hallway
Secondary AED: Field House Hallway

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WAUKESHA NORTH ATHLETICS - EMERGENCY ACTION PLAN

All coaches and event staff should be familiar with this document and their role and responsibility in an emergency.

An ***emergency*** is the need for Emergency Medical Services (EMS) to give further medical attention and/or transport an athlete to the hospital. It is important in these situations that coordination between the athletic trainer, coaches, administrators and student responders be effective. This guide is intended to delineate roles and outline the protocol to be followed should an emergency occur.

SITUATIONS WHEN TO CALL 911:

- An athlete is not breathing or has lost consciousness
- It is suspected that an athlete may have a neck or back injury
- An athlete has an open fracture (bone has punctured through the skin)
- Severe heat exhaustion or suspected heat stroke
- Severe bleeding that cannot be stopped

The highest person in the chain of command who is present at a scene will be the designated person in charge, or leader. That person is responsible for deciding whether or not to call 911, instructing others how they may be of help and will also be the person who stays with the athlete until EMS arrives.

WHEN PLACING A 911 CALL BE PREPARED TO:

- Give your name, location, and description of the emergency/injury.
- Give detailed directions for EMS, including location of entrance closest to the injury.
- DO NOT hang up until EMS has told you to do so.

THE LEADER SHOULD DESIGNATE PERSONS TO DO THE FOLLOWING:

- Stay with the injured athlete at all times.
- Call 911 (EMS).
- Get the AED (if necessary).
- Unlock all necessary gates so EMS can gain access quickly.
- Meet EMS at the entrance closest to the injury and assist them to the injured athlete.
- Call the parents and notify them of the injury.
- Fill out an accident report immediately following.

IMPORTANT INFORMATION

- **EMS Phone Number**: 911
- **Waukesha North HS Address:** 2222 Michigan Ave, Waukesha, WI 53188
- **Indoor Sports EMS Access @ Fieldhouse:** Main/Front school doors
- **Indoor Sports EMS Access @ Pool:** Exterior Door #2
- **Outdoor Sports EMS Access @ Stadium:** North gate- enter off Summit Ave
- **Phone Locations:** Cell Phone, main office, classrooms, coach's offices, and the training room.
- **Training Room**: Rm #113- inside exterior door #11, third door on the left (Across from the field house)
    - Stocked with ice bags, ace wraps, tape, band-aids, gloves, and gauze.

AED ZONES

ZONE 1 – Field House, Pool, Main Building
Primary AED: Field House Southeast corner.

ZONE 2 – Soccer Practice Fields, Football Practice Fields, Stadium, Baseball/Softball Practice Fields
Primary AED: Purple Shed Facing the Football Field.
Secondary AED: Field House Southeast corner.

ZONE 3 – Tennis Courts
Primary AED: Science Hallway- South end of school
Secondary AED: Field House Southeast corner.

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Team First Aid Kits

- Every team should have their own first aid kit that is stocked by the team/organization.
- First aid kits could include small tackle box or small tool box that can be found at Lowes, Home Depot, or Menards.

- List of key items that should be included in your first aid kit
- These items can be purchased at stores such as Walgreens, Walmart, or Target.

Tape	Pre-wrap	Stretch Tape
Instant Cold Pack	Hand Sanitizer	Wound Wash
Triple Antibiotic Ointment	ACE Wraps (variety sizes)	Scissors
Gloves	Gauze pads	CPR Face Mask
Band Aides (variety sizes)	Non-Adherent Gauze Pads	Nose Plugs

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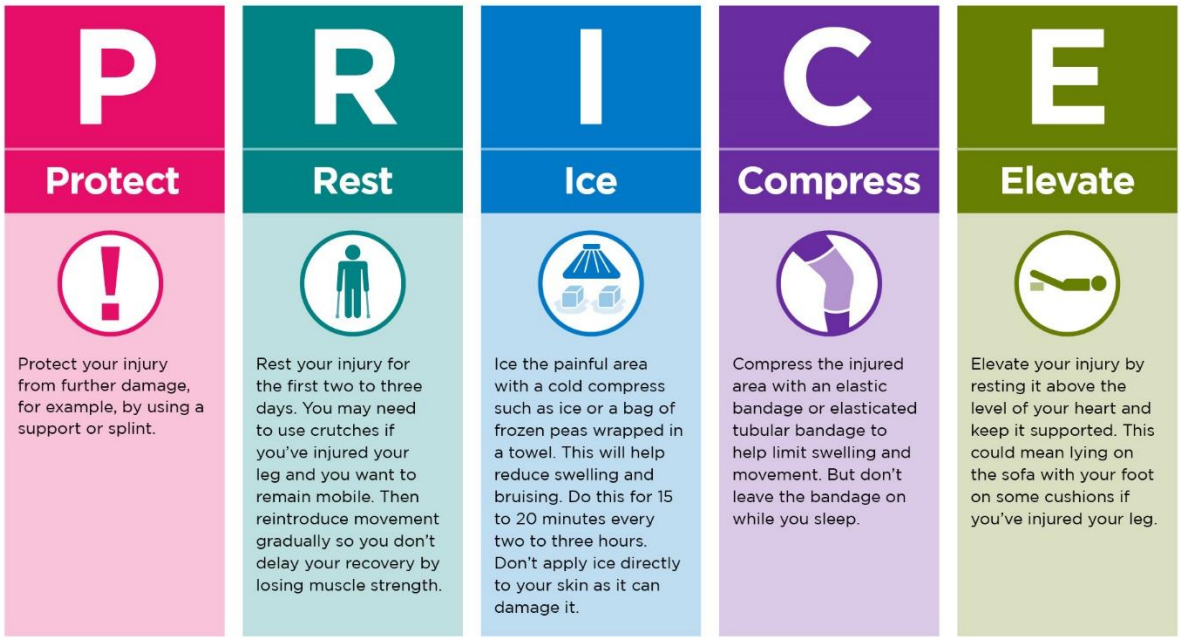
General Treatment Guidelines

Most minor soft tissue injuries can be managed at home. For the first two to three days after your injury, you should follow the **PRICE** procedure.



- Over the counter medications should not be provided to athletes by the coaching staff.
- Athlete's parents should be called if there is a medical emergency or if a referral to a Doctor is needed.
- If an athlete gets medical treatment from an outside medical provider, they should provide the coach a written medical release from that provider before they can participate again.

SITUATIONS WHEN TO CALL 911:

- An athlete is not breathing or has lost consciousness
- It is suspected that an athlete may have a neck or back injury
- An athlete has an open fracture (bone has punctured through the skin)
- Severe heat exhaustion or suspected heat stroke
- Severe bleeding that cannot be stopped

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Wound Care Management & Bloodborne Infections

DEFINITION

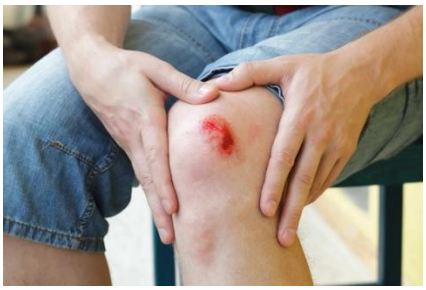
- Bloodborne pathogens are microorganisms that are present in the blood and other body fluids that can cause infectious disease in humans.
- The risk of transmission of bloodborne pathogens in the athletic setting is extremely low. However, standard precaution should be followed by anyone providing care for injured or bleeding athletes.
- Always treat every athlete as if they could be infected with a blood borne pathogen (Hepatitis B, Hepatitis C, and HIV.

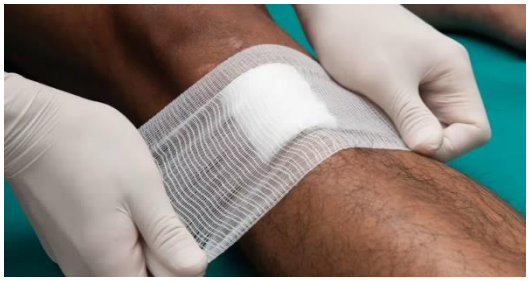
MANAGEMENT OF WOUNDS

- Athletes with active bleeding should be removed from competition immediately.
- Always wear gloves when treating a bloody wound.
- Bleeding should be controlled and wound cleansed with saline solution or wound wash.
- Wound should be properly covered with band aid or gauze and then covered with tape prior to returning to practice/competition.
- Gloves and bloody gauze should be properly disposed of in waste or biohazard receptacle.
- Make sure to never "double dip" when using multiple containers such as Vaseline, Neosporin, massage creams, etc.
- Always wash hands!
- If the wound is a laceration that potentially needs stitches, remove athlete from competition and contact parents for referral to Urgent Care/ED.
- ***TIP:*** Use Hydrogen Peroxide to remove blood from clothing/uniform!

MANAGAMENT OF A BLOODY NOSE

- Put gloves on!
- Pinch bridge of nose to reduce/stop bleeding
- Do NOT tilt head backwards
- Insert nose plug with Vaseline when possible (fold nose plug in half)
- Athlete may go back into competition if bleeding has stopped or is controlled by nose plug.
- When bleeding stops or competition is complete, athlete should remove nose plug and place in proper receptacle.
- Always wash hands!





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Common Pediatric Injuries - Apophysitis

DEFINITION

- Apophysitis refers to an injury to the growth cartilage of a growth plate in children that are still skeletally immature.
- There are apophyseal sites located all over the body, and are oftentimes irritated by repetitive traction stress. An injury can also be caused to the apophysis by direct contact as well.
- Common places to injure the apophysis are the heels of the feet (Sever's Apophysitis), upper shins (Osgood-Schlatter's Disease), and about the hips referred to as hip apophysitis.

SIGNS & SYMPTOMS OF APOPHYSITIS

- The most common complaint is pain with activity. The individual may be able to play with minimal pain initially, but as it worsens, they will show change in how they play, and may even want to sit out of play.
- Tenderness to direct pressure
- Mild swelling

TREATMENT

- Rest from irritating activities until the pain and tenderness go away.
- Ice should be applied to the painful area for 15-20 minutes as often as every 2-3 hours until the pain goes away.
- After daily activities can be tolerated without pain, gentle stretching and strengthening the muscles that attach to the affected apophysis can begin.
- Once flexibility and strength have improved, sport-specific activities such as jogging can begin with gradual progress to full activity.

RETURN TO PLAY

The goal is to return to sport or activity as quickly and safely as possible. Returning to activities too soon or playing with pain may cause the injury to worsen. This could lead to chronic pain and difficulty with sports.

Everyone recovers from injuries at different rates. Returning to sport or activity will be determined by how soon an individual's injured area recovers, not by how many days or weeks it has been since the injury occurred. In general, the longer an individual has symptoms before starting treatment the longer it will take to get better. Safe return to sport and activity may happen when:

- Full range of motion in the injured leg compared to the uninjured leg.
- Normal strength in the injured leg compared to the uninjured leg is regained.
- Ability to jog, sprint, cut/pivot, jump and land without pain or limping.

PREVENTION

- A proper warm up before starting any activity.
- Stretch tight muscle groups.
- Do not play through pain!

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Common Pediatric Injuries – Sever's Disease

DEFINITION

Sever's apophysitis is a common cause of heel pain in growing children. The Achilles' tendon (heel cord) on the back of the ankle pulls on the heel. This causes irritation of the growth plate on the heel bone. Rarely, there can be an avulsion fracture when a small piece of the bone is pulled away from the rest of the heel. About 60% of children will have it in both heels. It may last from a few months to two years. It can be very painful with activity and it will feel better with rest.

SIGNS & SYMPTOMS OF SEVER'S DISEASE

- Pain and tenderness in the heel.
- Mild redness or swelling of the heel.
- Limping
- Stiffness of the lower leg and/or feet.

TREATMENT

- Rest from irritating activities until the pain and tenderness go away.
- Ice should be applied to the painful area for 15-20 minutes as often as every 2-3 hours until the pain goes away.
- Stretching exercises for the Hamstrings and Achilles.

RETURN TO PLAY

Most young athletes can play through a little bit of pain without doing any damage. However, playing through moderate or severe pain can worsen the condition. This will make it harder to treat. Severe pain will also change the way your child uses their leg muscles, which can increase the risk for other leg injuries. Safe return to sport and activity may happen when:

- Full range of motion in the injured leg compared to the uninjured leg.
- Normal strength in the injured leg compared to the uninjured leg is regained.
- Ability to jog, sprint, cut/pivot, jump and land without pain or limping.

PREVENTION

- A proper warm up before starting any activity.
- Stretch tight muscle groups, specifically the Achilles.

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Common Pediatric Injuries – Salter-Harris Fractures

DEFINITION
The growth plate (physeal plate) is often injured due to traumatic injuries in pediatric patients. Fractures involving the growth plate may carry added significance, and may affect limb development following a growth plate fracture. The higher the severity of the injury, the higher the likelihood for the need for surgical intervention as a result of these fractures. The Salter-Harris Classification System, helps to explain the different types of growth plate fractures from low to high severity and bone structures involved.

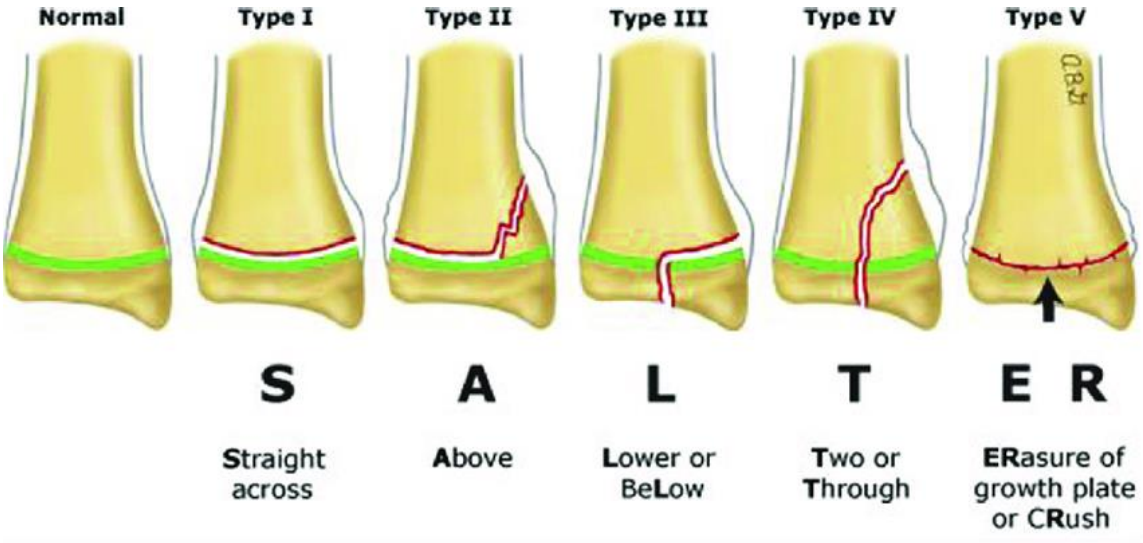
Type I: Fracture through the growth plate (physeal plate) that is often undetected on x-ray. It is the least concerning type of Salter-Harris Fracture and generally has no effect on limb development.

Type II: This type involves a fracture through the metaphysis and physis (most common; up to 75% of all Salter-Harris fractures)

Type III: This is a fracture through the epiphysis and physis

Type IV: Type IV is a fracture through the metaphysis, physis and epiphysis

Type V: The highest type involves crush injury involving part or all of the physis



SIGNS & SYMPTOMS OF SALTER-HARRIS FRACTURES

- Localized pain over the joint, with point tenderness over the growth plate.
- Mild to moderate swelling.
- Difficulty walking

TREATMENT
Varies on the type classification of the Salter-Harris fracture. If you have any suspicion of a possible fracture, please refer to their doctor.

RETURN TO PLAY
Medical clearance from their healthcare provider is required after treatment of fracture.

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Concussion/Head Injuries

DEFINITION

- A concussion is a type of traumatic brain injury (TBI) caused by a bump, blow, or jolt to the head or body that can change the way your brain normally works.
- Concussions can also occur from a blow to the body that causes the head to move rapidly back and forth (whiplash), without a direct hit to the head.
- What was previously referred to as a "ding," getting your "bell rung," can actually be a concussion. What seems to be a mild bump or blow to the head can be serious.
- Most athletes do not have loss of consciousness (knocked out) with a concussion.
- In rare occasions, athletes with head trauma may have a potentially life-threatening head injury such as bleeding, bruising, or swelling of the brain or fracture of the skull.

SIGNS & SYMPTOMS OF CONCUSSION

PHYSICAL		COGNITIVE
-Headache	-Nausea/Vomiting	-Disorientation and/or confusion
-Blurred Vision	-Numbness/Tingling	-Feeling mentally "foggy" or "slowed down"
-Dizziness	-Sensitivity to Light	-Memory loss or difficulty remembering
-Poor Balance	-Sensitivity to Noise	-Difficulty concentrating, feeling easily distracted
-Seeing "stars"	-Ringing in ears	-Slowed and/or slurred speech
-Neck Pain	-Vacant stare/Glassy Eyed	
EMOTIONAL		**SLEEP/ENERGY**
-Irritability	-Feeling anxious/nervous	-Drowsiness -Increased Sleep
-Personality Change	-Sadness	-Fatigue -Trouble falling/staying asleep
-Feeling more emotional	-Inappropriate emotions	

TREATMENT

- **Call 911 to activate EMS if any of the following occurs:**
  - Loss of consciousness
  - Persistent vomiting
  - Deteriorating mental alertness
  - Amnesia of confusion that lasts more than 10 minutes
  - Any seizure activity
  - Bruising under the eyes or behind the ears
  - Concerns for cervical spine injury
- **Remove athlete from participation if there are any signs/or symptoms of concussion.**
- **No athlete shall return to play or practice on the same day of being diagnosed with a concussion or rendered unconscious.**
- **Any athlete with a concussion must be medically cleared by an appropriate health-care professional prior to resuming participation in any practice or competition.**
- Do not allow athlete to drive themselves home.
- Observe injured athlete until turned over to the parent/guardian.
- Do not allow athlete to sit alone (i.e. sideline, bus, or in locker room)
- Speak directly with parent/guardian about suspected injury. Tell them how the injury happened and what signs/symptoms the athlete has. Instruct them to observe for worsening signs/symptoms, seek medical care and clearance for concussion.

https://www.wiaawi.org/Portals/0/PDF/Publications/medicalproceduresguide.pdf
https://chsaanow.com/documents/2022/8/9/SMAC_HANDBOOK_57_.pdf?id=1254

RETURN TO PLAY

- An athlete should be symptom free and back to normal function at home and in the classroom before returning to sport.
- Once an athlete has received WRITTEN clearance from a qualified medical provider, they should be progressed through the return to play protocol. https://www.wiaawi.org/Health/Concussion-and-Sudden-Cardiac-Arrest-Information#4251593-concussion-return-to-play
- Returning an athlete to sports participation who is still symptomatic increased the risk of re-injury at a time when the brain is still vulnerable.
- Re-injury before concussion is fully resolved may increase the risk of longer recovery, long term or permanent symptoms and very rarely "Second Impact Syndrome" (SIS). SIS is the rare phenomenon in which an athlete is still suffering from a concussion has severe brain swelling from a second injury, typically resulting in severe disability or death.

PREVENTION

- There is nothing that truly prevents concussion. Education and recognition of concussion are the keys in reducing the risk of problems with concussion.
- Wisconsin State Concussion Law (Act 172) was passed in 2011. This law mandates distribution of preseason educational information sheets to be signed by coaches, athletes, and parents. It also recommends immediate removal of any athlete with a suspected concussion and no same day return to play. Finally, all injured athletes require written medical clearance from an appropriate health care professional.
- Proper equipment fit and use may reduce the risk of concussion. Proper maintenance and reconditioning of equipment is important.
- Mouth guards have not been shown to reduce risk of concussion.
- Soccer headgear has not been shown to reduce risk of concussion.
- Helmets are useful in preventing facial injuries and skull fractures; however helmets have not been reliability shown to decrease concussion rates.

CHILDREN'S WISCONSIN CONCUSSION RESOURCES

- CW Concussion Clinic: https://childrenswi.org/medical-care/sports-medicine/programs-and-services/concussion
- CW Concussion Locations: https://childrenswi.org/medical-care/sports-medicine/programs-and-services/concussion/locations
- CW Concussion Specialists: https://childrenswi.org/medical-care/sports-medicine/programs-and-services/concussion/our-specialists
- CW Concussion Baseline Testing: https://childrenswi.org/medical-care/sports-medicine/programs-and-services/concussion/baseline-concussion-testing
- CW Concussion Sports Psychology: https://childrenswi.org/medical-care/sports-medicine/programs-and-services/concussion/concussion-sports-psychology
- CW Concussion Neuropsychology: https://childrenswi.org/medical-care/sports-medicine/programs-and-services/concussion/concussion-neuropsychology

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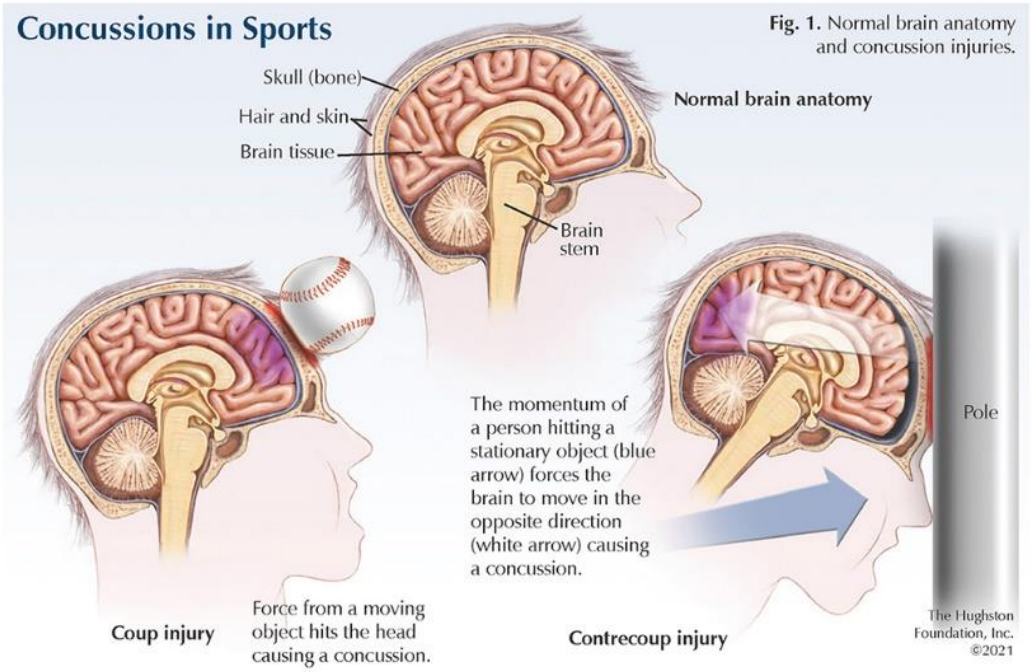
OTHER CONCUSSION RESOURCES

- CDC Heads Up Concussion Guide for HIGH SCHOOL Coaches: https://www.cdc.gov/headsup/pdfs/highschoolsports/coach_guide-a.pdf
- CDC Heads Up Fact Sheet for YOUTH Sports Coaches: https://www.cdc.gov/headsup/pdfs/youthsports/coaches_engl.pdf
- NATA Concussion 101: https://www.nata.org/sites/default/files/concussion-infographic-handout.pdf
- WIAA Concussion Resources: https://www.wiaawi.org/Health/Concussion-and-Sudden-Cardiac-Arrest-Information#4251590-wiaa-concussion-policy
- Note: Wisconsin state law requires concussion information sheets to be distributed and acknowledged for coaches, parents, and athletes before practice may be allowed



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Spine Injuries

DEFINITIONS

In contact sports, a spine injury almost always refers to an injury to the neck, however back and low back injuries may occur. Recognizing a potential spinal cord injury requires having a high level of suspicion for this type of injury. Spinal injuries can have devastating effects. Sport participation constitutes the 4th most common cause of these injuries overall but is the 2nd most common cause for those younger than 30 years of age.

MANAGEMENT

- Immediately Stabilize the Cervical spine
- If a helmet is present it should not be removed except in the conditions below. Removal of the Helmet and shoulder pads in a suspected cervical spine injury remains controversial:
  - If helmet and shoulder pads are in place and properly fitted securing the head and neck in neutral alignment, then the **helmet and shoulder pads should remain in place** until an athletic trainer or experienced medical team (3 or more personnel with proper training in equipment removal) arrives. They may be removed as a unit by this experienced medical team prior to being transported to the local emergency department by ambulance.
  - If helmet remains in place, the athletic trainer or EMS should remove the facemask using the appropriate tools while maintaining the head and neck in a neutral position. Removing the facemask allows access to the airway.
- Stabilization of the neck in a neutral position is performed by grasping the behind the ears (mastoid processes) and cupping the back of the head (occiput) and simply supporting the head, preventing side to side, forward or backward motion or rotation of the neck.
- Under no circumstances should traction be applied to the athlete's head or neck.
- If the athlete is in a sport without protective gear or protective gear has been removed, a cervical collar should be placed by ATC. Cervical collar alone is not enough to protect the neck, continue to hold stabilization.
- The athlete's head should be moved into the neutral position unless moving the athlete's head/neck causes increased pain, muscle spasm, loss of neurological function or restriction in range of motion.
- A player found in the prone position (on stomach/facedown) must be returned to the supine position (on back/face up) for evaluation.
  - The proper technique for transitioning the prone patient to supine is the "prone log roll technique"
  - This means that the body, arms, legs and head, with 4-6 people helping, are all rolled together as a unit at the same speed.
  - DEMONSTRATION VIDEO: https://youtu.be/AlwFLh36kiE?si=tBadKjvQ7igcciOz
- Emergency cards should be easily accessible, and parents of athlete should be contacted ASAP.
- It is the responsibility of the school to contact their local EMS services and to have a protocol in place for management of suspected spine injuries. This is a vital part of EAP and training.
- Once EMS arrives, they will assume responsibility of the situation and may add or remove equipment as they see necessary. There should continue to be teamwork between ATC, on-field staff and EMS.

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When a student athlete is injured on the field/Court and no LAT and/or EMS personnel are available carry out the following steps:
• Ensure scene is safe • Do not move the athlete • If unconscious and/or suspected head/neck injury - stabilize cervical spine and call 911 • Assess respiratory status (if in cardiac arrest initiate CPR/AED) • Notify family and appropriate school administration • Document/record your actions – athlete injury/incident report

PREVENTION:

- Proper technique in tackling (e.g. No spear tackling) and in other contact sports is paramount.
- Emphasis on prevention is key.

RESOURCES:

- NCAA Sport Science Institute - http://www.ncaa.org/sport-science-institute/field-evaluation-injured-athlete
- Spine Providers at Children's WI- https://childrenswi.org/medical-care/aim-spine-center/spine-experts

https://www.wiaawi.org/Portals/0/PDF/Publications/medicalproceduresguide.pdf
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Exercise Induced Asthma

DEFINITIONS

- Asthma is a chronic lung condition which causes obstruction of the airways (breathing tubes) due to inflammation (irritation and swelling) of the lining of the airways and tightening of the airways.
- Athletes with asthma can have worsening symptoms due to exercise.
- Some people without asthma can have wheezing with exercise, which is when exercise and exposure to cold dry air or pollutants causes breathing difficulty due to narrowing of the airways

SYMPTOMS

- Coughing
- Wheezing (noise when breathing out)
- Difficulty breathing
- Chest tightness
- Fast breathing
- Have trouble speaking
- Blue color of lips or skin
- Retractions (skin above the collar bones or between the ribs gets sucked in with each breath)

MANAGEMENT

- Stop exercise
- Remove the athlete from area if something in the environment seems to have caused the attack
- Have the athlete use their inhaler (albuterol). They should be using a "spacer" device that goes on the end of the inhaler and take 2-4 puffs. If there is no improvement after the initial 2-4 puffs, consider transporting via EMS.
- Help them try to relax and control breathing, but do not delay medication to do this.
- Activate EMS by calling 911 if the athlete is confused, loses consciousness, turning blue, or has severe difficulty breathing which does not respond to the inhaler.

PREVENTION

It is the responsibility of the athlete/legal guardian to notify his or her coach/school if they have been diagnosed with one of these conditions at any time.

- Using an inhaler before exercise may help prevent breathing difficulty. This should be done at the direction of the athlete's medical provider.
- Regular exercise may help decrease asthma and breathing related problems.
- Proper warm up may help decrease asthma attacks.
- Athletes who are known to have asthma should not exercise in extreme temperatures or if there are high levels of pollution in the air (including smoke and pollens).
- All athletes with asthma should see their medical provider regularly to manage their disease.

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Diabetes

DEFINITION

- Diabetes is a condition in which the pancreas does not produce insulin, a hormone needed to get energy from food. Many diabetics must take insulin by injection to live.
- Exercise is important to the health and well-being of diabetics, but exercise can also cause unexpected increases or decreases in blood sugar, which can be an emergency.
- Hypoglycemia (low blood sugar) is a potentially life-threatening condition in which too little glucose is in the blood.
- Hyperglycemia (high blood sugar) is a condition in which too much glucose (sugar) is present in the blood.

SYMPTOMS

Hypoglycemia – Low Blood Sugar	Hyperglycemia – High Blood Sugar
• Athlete tells you they "feel low" • Irritability, anxiety • Lightheaded • Trembling, shaky • Weakness • Pale & sweaty • Rapid heartbeat/rapid breathing • Confusion • Loss of consciousness • Seizure	• Dry hot skin • Breath has a "fruity" odor • Nausea, vomiting and/or abdominal pain • Dry mouth, dehydration • Excessive thirst and frequent urination • Unusual fatigue, sleepiness, inattention • Rapid deep breathing • Loss of consciousness or confusion

MANAGEMENT

Hypoglycemia – Low Blood Sugar	Hyperglycemia – High Blood Sugar
• Call 911 if athlete is disoriented, loses consciousness or does not improve within 10 minutes of treatment • Stop all exercise • If athlete is alert and cooperative, give sugar. • Sugar: 6 oz fruit juice, 6 oz non-diet soda, fruit snacks, Gatorade, etc • Repeat sugar in 10-15 minutes if needed • Check blood sugar with glucometer if athlete is able to do so • Contact parent/guardian	• Call 911 if athlete is confused, responds inappropriately, or is unconscious • Stop all exercise • If alert and cooperative, hydrate with water • Have athlete measure their blood sugar • If athlete is alert & cooperative, have them administer their insulin • Contact parent/guardian

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PREVENTION

It is the responsibility of the athlete/guardian to notify their coach/school/athletic trainer if they are diabetic.

- Coaches should be aware of any athlete with diabetes
- Diabetics should always have a source of sugar with them at every practice/game in case of low blood sugar and must carry snacks/meals when travelling.
- In those where the disease is poorly controlled, or whose blood sugar is high (>180 mg/dl) or low (<70 mg/dl), they should not exercise until they have controlled blood sugar.
- All diabetic athletes must have a care plan from their medical provider which includes guidance on measuring blood glucose levels before, during, and after exercise and how to adjust food and insulin doses in response to blood sugar levels and exercise.
- Most athletes with diabetes require a snack of complex carbohydrates prior to any exercise, with additional snack for every hour of exercise. Give the athlete breaks for hydration, snacks, and blood sugar checks.
- Condition gradually at the start of the season.
- Limit exercise in extreme heat or cold.

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Epilepsy (Seizure Disorder)

DEFINITION

A disorder of brain function characterized by sudden, brief attacks of altered conscious, motor activity, sensory phenomena or inappropriate behavior caused by an uncontrolled electrical disturbance in the brain.

SYMPTOMS

Recognition of seizures can include any or all of the following symptoms:

- Blank stare, dazed, unresponsive
- Unaware of surroundings
- Rapid blinking or chewing movements
- Clumsy
- Rigidity, followed by muscle jerks
- Shallow breathing
- Possible loss of bladder or bowel control
- Generalized shaking of entire body

MANAGEMENT

Immediately:	Once Seizure has subsided:
• Activate EMS by calling 911 • Protect patient from further injury, especially the head • Do not forcibly restrain • Roll patient to the side to avoid choking on vomit, "rescue position" • **Do not put anything in the mouth, including your finger**	• Check for injuries • Referral to medical care immediately

PREVENTION

- Youth with seizure disorders are more likely than their peers to have a sedentary lifestyle and to develop obesity and other medical problems. Regular participation in physical activity can improve both physical and psychosocial outcomes for young athletes with seizure disorders.
- Athletes who have a seizure should not participate in high risk sports (swimming, contacts sports, or high velocity sports such as biking) until cleared by a medical provider.

RESOURCES

- WIAA- https://www.wiaawi.org/portals/0/pdf/publications/medicalproceduresguide.pdf

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Sudden Cardiac Arrest

DEFINITION

- Sudden cardiac death (SCD) is the most common cause of death in exercising youth athletes. Most SCD's are caused due to an undetected structural heart condition. It can also be caused by a direct blow to the chest over the heart (Commotio Cordis).
- Sudden cardiac arrest (SCA) is when an athlete's heart suddenly stops function. Sudden cardiac death is due to sudden cardiac arrest.
- Sudden cardiac arrest is fatal if steps to revive the athlete are not taking immediately. For every 1-minute delay in giving a shock to the heart, survival decreases by 10%. You don't have time to wait for EMS.

You need to start CPR and use your AED right away.

SYMPTOMS AND PRESENTATION

- Cardiac arrest is the sudden loss of heart function. The athlete suddenly becomes unresponsive (unconscious). Brief jerking that looks like seizure and gasping breathing may occur, in which case the SCA protocol should still be followed.
- Warning signs**: THERE ARE USUALLY NO WARNING SIGNS**. Most athletes are high functioning athletes who do not display warning signs or symptoms before they collapse. However, cardiac symptoms during exercise need to be taken very seriously. An athlete who has pain in the chest, ear, neck or shoulder, severe headache, extreme shortness of breath, feeling overly fatigued, dizziness, palpitations (sense of irregular heartbeat), heartburn, is breaking into cold sweat or fainting with exercise must stop all athletic participation until they have a medical evaluation.
- SCA can occur in any sport but 75% of cases occur in basketball, football, track/cross country or soccer.

MANAGEMENT

- Have a venue specific emergency action plan (VEAP) in place, know it and practice it at the start of every season.
- If an athlete collapses and becomes unresponsive with abnormal or no breathing, start CPR right away and have a bystander call 911.
- Send someone to get the AED (automated external defibrillator).
- One person must continue CPR while another turns the AED on and follows the voice prompts (remove clothing from chest, attach pads to chest, and plug in connector).
- Only stop CPR when the AED tells you to stop (while it analyses the heart rhythm).
- If shock advised, everyone must "stand clear", stop touching the athlete and push the shock button.
- As soon as shock has been delivered or if the AED does not recommend shock immediately restart CPR.
- Continue CPR until the athlete becomes responsive, the AED tells you it's time to analyze the rhythm, or EMS arrives to take over.

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- It is okay to use the AED in a wet environment. However, you should dry off a wet chest before applying pads or move the athlete if they are in a puddle or on a metal surface. (i.e. the bleachers)

PREVENTION

- All high school athletes must have a yearly pre-participation exam (PPE) on file. Current guidelines will only detect a small percentage of possible heart conditions. We cannot rely on screening to identify the majority of heart conditions.
- As a general rule, athletes should train with a gradual increase in activity, not with sudden strenuous exercise.
- All sporting venues should have an automated external defibrillator (AED) as close to areas of exercise as possible, with the ability to get the AED to the athlete within 3 minutes.
- Coaches must be trained in CPR and the use of the AED and must practice their venue specific emergency action plan before the start of the season.

RESOURCES

- Sudden Cardiac Arrest Association- http://www.suddencardiacarrest.org/aws/SCAA/pt/sp/home_page
- American Heart Association- https://www.heart.org/en/health-topics/cardiac-arrest

Sickle Cell Trait

DEFINITIONS

- Genetic condition that occurs when a person inherits one sickle cell gene and one normal gene.
- Approximately 8% of African Americans in the US has SCT.
- SCT generally does not present problems with daily activities.
- Majority of athletes with SCT compete without complications or symptoms.
- During periods of intense or prolonged exertion or with low oxygen levels (high altitude), the blood cells can change shape (sickle), causing a blockage of blood vessels and a rapid breakdown of muscle. When this occurs, the athlete may collapse and in rare cases fatality can occur.

SYMPTOMS

- Appears dazed or confused
- Appears weak
- Not keeping up with other teammates
- Difficulty breathing
- Muscle pain, weakness, or cramping
- Pain or discomfort with mild to moderate exercise

MANAGEMENT

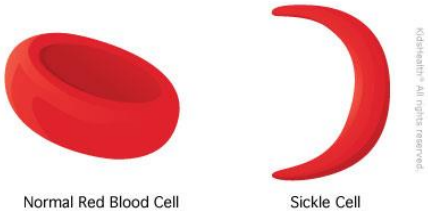
- If experiencing any signs or symptoms of SCT, remove athlete from all activity.
- Get proper rest and hydration until symptoms subside.
- During hot weather, athlete should be taken into a cool environment to prevent overheating.
- If the athlete collapses at any time, call 911 immediately.

PREVENTION

- The athlete/parent should notify or disclose presence of SCT to appropriate school personnel/coach/athletic trainer.
- Avoid exercise in extreme heat or cold conditions
- Stay well hydrated with more frequent breaks than most athletes
- Get adequate rest and recovery between intense drills
- Slow and gradual preseason conditioning regimen
- Athlete should not run times, sustained 100 yard sprints or timed, sustained shuttle runs
- Rest breaks must be given between sprints or sustained maximal efforts
- Schools need to be careful when acclimatizing students during preseason conditioning and sports activities especially during the warmer months.
- SCT should not preclude an individual from participating in sports.

ADDITIONAL RESOURCES

WIAA: https://www.wiaawi.org/Health/Sickle-Cell



Normal Red Blood Cell Sickle Cell

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Lightning Policies & Procedures

WEATHER APPS

• It is strongly recommended that an independent and objectively verified weather app (such as the WeatherBug®, Storm by Weather Underground, or the National Weather Service app) be available at all outdoor activities, including practices and contests. This should be part of your venue-specific emergency action plan.

GUIDELINES/PROCEDURES

- Assign a staff member to monitor local weather conditions before and during practices and contests. This staff member is designated to make the final call on suspending and resuming the game.
- Develop an evacuation plan and identify appropriate nearby safe areas & determine the amount of time needed to get everyone to this area.
  - A designated safe area could be a school, gymnasium, locker rooms or buses/cars.
  - Unsafe locations include: open sided dugouts, storage sheds, open garages, tents, press boxes, & tall objects such as trees, poles, or towers.
- When a thunderstorm seems imminent, lightning is seen or heard, or the weather app indicates that lightning is within 8-10 miles, the outdoor venue (small or large) needs to be evacuated to the designated lightning safe area. All activities shall be suspended at this time.
- Criteria for resumption of play:
  - **30-minute rule: Once play has been suspended, wait at least 30 minutes after the last thunder is heard or lightning is witnessed prior to resuming play.**
  - **Any subsequent thunder or lightning after the beginning of the 30-minute count will reset the clock and another 30-minute count should begin.**

MANAGEMENT

People who have been struck by lightning do not carry an electrical charge and are safe to be touched by others.

- Call 911
- If possible, an injured person should be moved to a safe location before starting CPR
- Start CPR! Lightning-strike victims with signs of cardiac or respiratory arrest need immediate emergency help.
- Activate the local emergency management system and utilize an AED if available. Prompt, effective CPR has been highly successful for the survival of lightning strike victims.

ADDITIONAL RESOURCES

- WIAA: https://www.wiaawi.org/Health/Lightning

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Cold Weather Protocols

DEFINITIONS

- Cold weather is defined as any temperature that can negatively affect the body's regulatory system.
- The combined effects of cold, wet, and wind increase the chances of cold injury.
- The Wind Chill is the temperature your body feels when the air temperature is combined with the wind and speed. It is based on the rate of heat loss from exposed skin caused by the effect of wind and cold. As the speed of wind increases, it can carry heat away from your body much more quickly, causing skin temperature to drop.

TYPES OF COLD ILLNESSES

	HYPOTHERMIA	FROSTNIP/FROSTBITE
DEFINITION	• Body Core Temperature below 95 deg. F. Occurs when heat loss exceeds the body's heat production.	• Frostnip is cooling of body tissues but not freezing of the exposed skin. In contrast frostbite is actual freezing of body tissues. Most susceptible are fingers, toes, earlobes and nose.
SYMPTOMS	• Shivering • Sleepy or difficult to arouse • Clumsiness (impaired motor control) • Pale, cold face and extremities • Decreased heart rate • Slurred speech • Confusion (Impaired mental function/amnesia)	• Dry, waxy skin • Swelling • Burning, tingling • Limited movement • White/blue/gray patches • Aching, throbbing, shooting pain
MANAGEMENT	• Activate EMS by calling 911 • Transfer to warm/dry environment as quickly and gently as possible • Remove wet clothing • Warm chest and abdomen with dry insulating blankets (avoid warming extremities initially) • Cover/warm the head • If alert, provide warm beverages • Continue to monitor until EMS arrives	• Rewarm slowly in warm water (avoid hot) • Warming should be continued until the skin is red/purple and soft to touch • Avoid friction/rubbing tissue

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MONITORING COLD WEATHER

- Weather should be monitored using temperature and wind chill guidelines as listed below and practices/competitions modified as need.
- Wind chill index can be found at: https://www.weather.gov/safety/cold-wind-chill-chart

30° F (-1° C) and below	Be aware and plan for cold exposure and the potential for injury; notify appropriate personnel and participants of the conditions and risks.
25°F (-4°C) and below	Provide additional protective clothing; cover as much exposed skin as practical; provide opportunities and facilities for rewarming
15°F (-9° C) and below	Consider modifying athletic activity to limit cold exposure and/or to allow more frequent rewarming opportunities
0° F (-17° C) and below	Consider terminating or rescheduling activity

* The guidelines are adapted from National Athletic Trainer's Association Position Statement

PREVENTION

1. Competition/Practice Modifications
   - Coaches should be vigilant and monitor players' physical condition and alertness in cold conditions. Allow for frequent cold checks.
   - Consider abbreviated warm-ups; extended half-times to allow for rewarming.
   - Adjust for changing conditions and provide access to a warm building.
2. Clothing
   - Wear appropriate type of clothing in layers to protect from cold exposure and several layers around the core of the body.
   - 1st layer should wick the moisture away from the body (synthetic instead of cotton), top layer should trap heat and block the wind (fleece, wind block), and outside layer should be water resistant /waterproof.
   - Dry clothing is essential!
3. Hand/Feet
   - Head should be covered with a hat or helmet to protect ears/break wind
   - Face should be protected in severe cold
   - Feet need moisture wicking socks (preferably wool blend)

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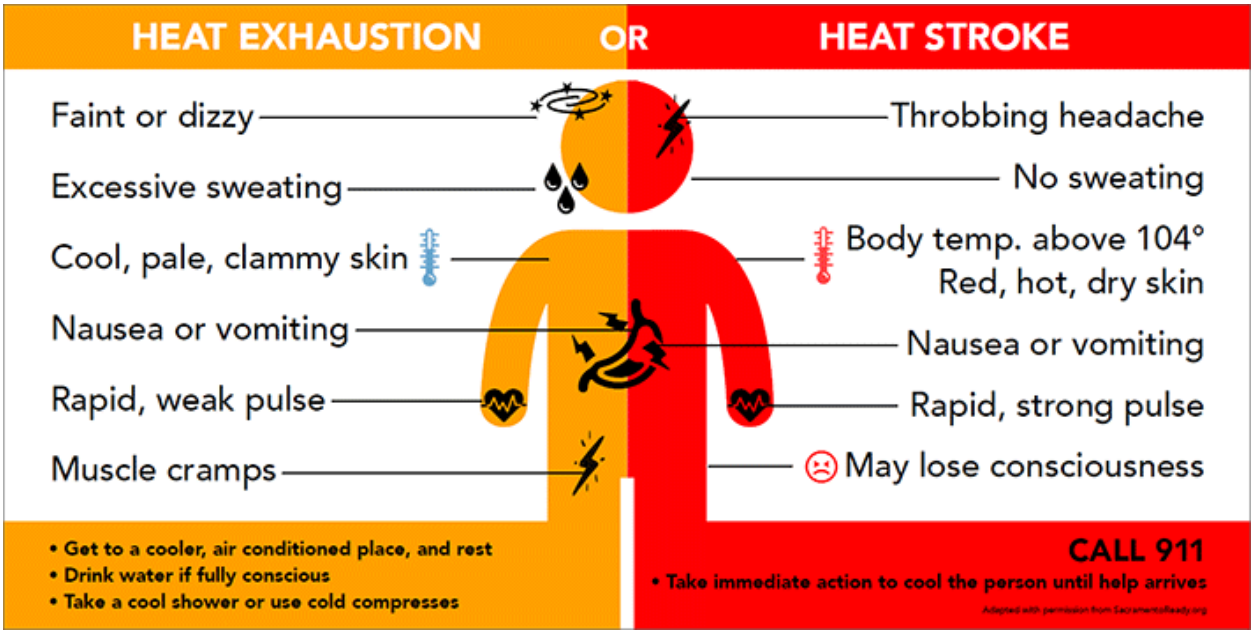
Heat Illness Protocols

DEFINITIONS

- Heat illness occurs in athletes exposed to excessive environment heat.

RISK FACTORS FOR HEAT ILLNESS

- Hot/humid weather
- Inadequate athlete preparation (e.g. athletes with poor fitness level and/or insufficient acclimatization to the heat)
- Excessive physical exertion
- Dehydration
- Overweight
- Heavy clothing/uniforms/equipment
- Sickle Cell Trait/Disease



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Children's Wisconsin

TYPES OF HEAT ILLNESS

	HEAT CRAMPS	HEAT EXHAUSTION	HEAT STROKE
DEFINTIONS	• Intense muscle spasms after prolonged, intense exercise in the heat. • Caused by fluid & electrolyte loss from sweating & fatigue of muscle	• Perceived discomfort as body temperature rises.	• Elevated core temperature and changes in mental alertness due to exercising in extreme heat.
SYMPTOMS	• Intense muscle pain, without a history of muscle strain • Persistent involuntary muscle contractions	• Elevated core temperature • Fatigue • Headache/lightheadedness • Weakness/loss of coordination • Profuse sweating • Nausea, vomiting, stomach cramps	• Heat stroke can occur abruptly • Elevated core body temperature • Progressive headache, dehydration, weakness, fatigue, and nausea • Key feature is the central nervous system dysfunction, such as altered consciousness, decreased mental focus, seizures, confusion, emotional instability, and irrational/combative behavior • Increased heart rate • Rapid breathing
MANAGMENT	• Remove athlete from heat • Sports drinks may help replace fluid and electrolyte losses. Provide water if no sports drinks are available • Light stretching and massage of the affected muscles may help alleviate cramping	• Move the athlete to the shade/inside • Remove extra clothing and equipment Updated 1/27/2023 • Cool the athlete rapidly with cold water, cold towels, and fans • Encourage fluids if the athlete is alert and not nauseated • Monitor the athlete closely for signs of worsening • Continue cooling the athlete until they can be removed from the environment • Make plans to transport the athlete if the symptoms progress or if there is a slow response to the above management • Even if athlete does not need transport, they should not return to play the same day	• **Initiate the Emergency Action Plan (EAP); Call 911** • "Cool first, transport second" • Move the athlete out of the heat • Remove extra clothing/ equipment • Quickly begin aggressive whole-body cooling. Immersion in a cold tub is best, but if this not available, use cold water towels, ice, and fans to rapidly bring body temperature down • When EMS arrives, transport to emergency medical facility after appropriately cooled • Delaying cooling can result in permanent injury. When an athlete collapses in the heat, there should be no delay in initiating the emergency action plan and cooling the athlete.

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PREVENTION

- Monitor environment regarding heat and humidity.
- Adjust workload/equipment in high-risk conditions.
- Conduct warm ups in the shade and allow for breaks in the shade.
- All coaches need to closely monitor athletes for signs and symptoms of heat illness when training in the heat.
- Mandate scheduled rest/breaks/hydration during practices in the heat.
- Teach and practice appropriate hydration methods.
- Ensure that personnel and facilities are equipped to handle heat stroke emergency.

Please reference the chart below to make the appropriate accommodations for practice. Heat index for your current location can be found in weather apps such as the WeatherBug®, or OSHA-NIOSH Heat Safety Tool).

	Heat Index	Activity Guidelines
Green	< 80.0°F	Normal Activities-Provide at least 3 separate rest breaks each hour for a minimum duration of 3 minutes each during the workout.
Yellow	80°F-90°F	Use discretion for intense or prolonged exercise; Provide at least 3 separate rest breaks each hour with a minimum duration of 4 min each.
Orange	91°F-103°F	**Maximum practice time of 2 hours**. FOR FOOTBALL: Player are restricted to helmet, shoulder pads, and shorts during practice. If the heat index rises **during** practice, players may continue with practice with current attire and not required to change. FOR ALL SPORTS: Provide at least 4 separate rest breaks each hour for a minimum of 4 minutes each.
Red	104°F-124°F	**Maximum practice time of 1 hour.** FOR FOOTBALL: No protective equipment may be worn during practice, and there may be NO conditioning activities. FOR ALL SPORTS: There must be a 20 minutes rest break throughout the 1 hour of practice. If able move the practice inside to a cooler location.
Black	≥ 125°F	**NO OUTDOOR WORKOUTS**. Delay practice until a lower heat index or move high school practice inside.

https://www.gpisd.org/Page/49984

ADDITIONAL RESOURCES

- **WIAA:** https://www.wiaawi.org/Health/Heat-Information#4247547-heat-related-illness
- **NATA:** https://www.nata.org/sites/default/files/hydration_heat_illness_handout.pdf
- **Children's Wisconsin:**
  - https://kidshealth.org/ChildrensWI/en/parents/heat.html?WT.ac=p-ra
  - https://childrenswi.org/medical-care/sports-medicine/common-sports-medicine-injuries/heat-related-illnesses

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Hydration/Dehydration

DEFINITION

- A mismatch between water intake and body water loss - Loss of greater than 2% of body weight
- Most athletes do not voluntarily drink adequate volumes to maintain hydration in practices/games
- Dehydration is impacted by the intensity of exercise, environmental and availability of fluids.
- Predisposes to heat illness
- Significantly impairs performance
- Thirst is not a reliable indicator of dehydration

SYMPTOMS	MANAGEMENT
• Thirst • Irritability • Cramps • Headache • Nausea/Vomiting • Fatigue/Weakness/Dizziness • Decreased performance	• Assess level of distress/symptoms, consider removing from activity depending on the level of symptoms. • Rest the athlete and establish a rehydration plan to replenish lost fluids. • Water or sports drink may both be utilized to rehydrate the athlete

PREVENTION

- Water is something all young athletes need prior to exercise.
- Develop a hydration strategy: drink before, during and after exercise. Hydration plans need to be individualized.
- Daily hydration habits are important for overall hydration status.
- Monitor hydration by evaluating urine color-a light color like lemonade indicates adequate hydration and a darker color like apple juice indicates dehydration.
- Fluid volumes needed to maintain hydration vary by size of the athlete, the athlete's sweat rate, and the intensity of exercise.

AVERAGE FLUID VOLUMES FOR ADOLESCENTS

- Do not drink > 1 quart per hour during exercise
- Young athletes should continue to hydrate 2-3 hours after event
- Consume 20-24 fluid ounces (1 to 1 ½ water bottles) of water or sports drink for every pound lost during exercise.

TIME	FLUIDS CONSUMED
4 hours before	16 fluid ounces of water (about 1 water bottle)
10-15 minutes before	8 fluid ounces of water
Every 15 minutes when exercising for < 1 hour	4 fluid ounces of water (2-3 large gulps)
Every 15 minutes when exercising vigorously for > 1 hour	4 fluid ounces of sports drink (2-3 large gulps)

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Sports Drinks & Energy Drinks

SPORTS DRINKS	ENERGY DRINKS
• Contain carbohydrate, minerals, electrolytes and flavoring. • Intended to replace water & electrolytes lost through sweating during exercise. • Best used for athletes in prolonged, vigorous physical activities (>60 min). 	• Many contains stimulants such as caffeine. • Caffeine consumption has a risk of significant side effects. One energy drink can = 2-5 sodas. • Energy drinks are not appropriate for children or adolescents and not recommended in those < 18 years old. • Supplement industry is not regulated by the FDA. • Side effects: jitters, anxiety, increased heart rate, insomnia, & GI distress. 

ADDITIONAL RESOURCES

Hydration/Dehydration:

- https://www.wiaawi.org/Portals/0/PDF/Sports/Wrestling/hydration4athletes.pdf
- https://kidshealth.org/ChildrensWI/en/parents/dehydration.html?WT.ac=p-ra

Energy Drinks:

- https://www.wiaawi.org/Portals/0/PDF/Health/NFHSenergydrinks.pdf
- https://kidshealth.org/ChildrensWI/en/parents/power-drinks.html?WT.ac=p-ra

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Children's Wisconsin

Smart snacking

Children's Wisconsin

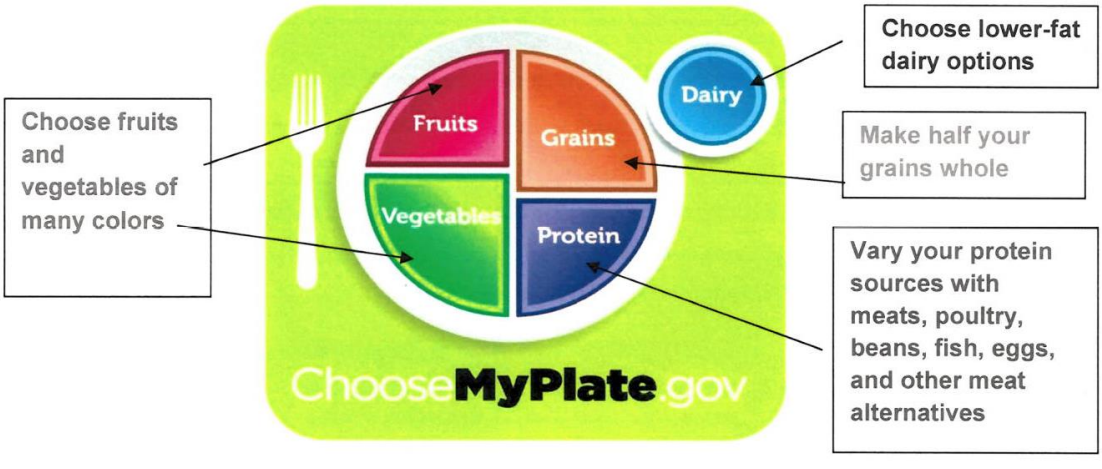
Healthful snacks are an important part of good nutrition and provide active kids and teens the energy they need to get through the day. Snack time is a great time to eat from food groups lacking during the day. Choosing a snack with fiber or protein will help prevent feeling hungry between meals.

Snack Tips

- Think about what food groups are missing from regular meals. For example have you had something from each of the five food groups? If not, think about adding these to a snack.
- When it comes to smart snacks, think outside the box. Snacks do not have to be packaged in order to be easy.
- Serve snacks at the table with all electronics off. Try to serve snacks at the same time each day. For example, have a sit-down after school snack at 3:30 pm each day. A snack routine is important to avoid grazing or snacking out of boredom.
- If your family is often busy, plan ahead and try to prepare snacks ahead of time. For example, cut up watermelon or pineapple and split into several containers for the week.
- Juice is not a good snack option. Fruit juices can be damaging to teeth. Your child may not grow well if they have too much juice. Choose fruit over fruit juice.
- Read labels on packaged foods before buying. Look for snacks with little or no added sugar that also have some fiber or protein in them.

Use MyPlate

Use MyPlate to help choose balanced snacks. **For snacks, aim for 1 to 2 different food groups.**



For more information on MyPlate, go to www.ChooseMyPlate.gov.

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Grains

• Whole wheat bread • Whole wheat English muffin • Mini whole wheat waffles • Whole grain pretzels	• Graham crackers or whole wheat crackers like Triscuits • Granola bar* • Whole grain pita triangles • Popcorn

Fruit

• Any fresh fruit • Fruit salad • No sugar added fruit cup	• Fruit kabobs* • Unsweetened dried fruit* • Applesauce

Dairy

• Low-fat milk • Low sugar yogurt • Cottage cheese	• String cheese, cheese slices or cubes • Kefir or low sugar yogurt drinks • Smoothies: yogurt, milk and frozen fruit

Protein

• Thin-sliced deli meats • Hard-boiled eggs • Hummus or other bean dip • Turkey or beef sticks or jerky*	• Nuts* and seeds* • Peanut butter • Cashew, almond or sunflower seed butter

Vegetables

• Any raw vegetable: carrots, cucumbers, broccoli, cauliflower, bell peppers, cherry tomatoes, sugar snap peas.	• Pair vegetables with dip. See Vegetable Dilly Dip recipe below

ADDITIONAL RESOURCES

- **Children's Wisconsin:**
  - https://kidshealth.org/ChildrensWI/en/teens/eatnrun.html
  - https://kidshealth.org/ChildrensWI/en/parents/feed-child-athlete.html
  - https://kidshealth.org/ChildrensWI/en/kids/pyramid.html?WT.ac=p-ra

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Compression Wrap - Ankle

Compression wraps are used to prevent swelling, which can help your injured ankle feel better. It does not support the ankle or prevent it from moving, so it does not protect it except by reminding you to be careful of your ankle.

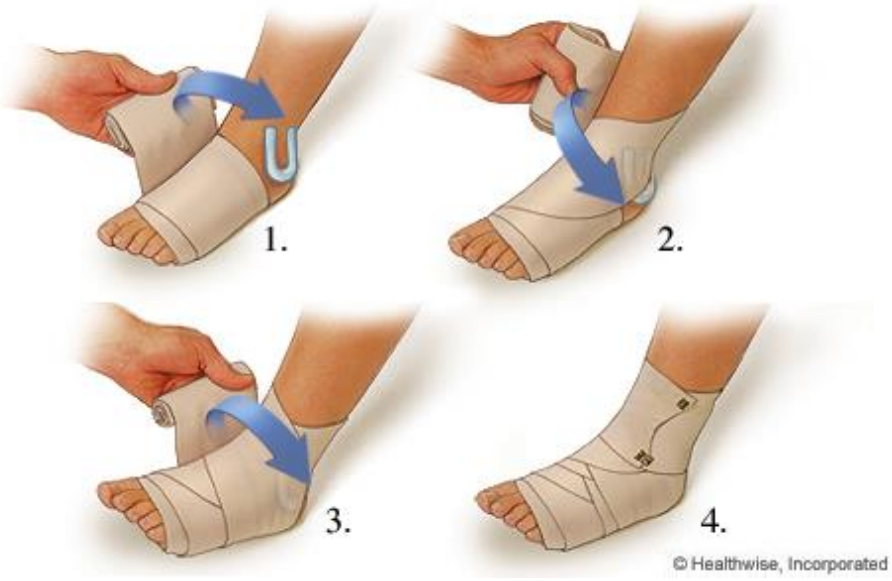
INSTRUCTIONS

1. Roll up an elastic bandage if it isn't already rolled up. Hold your ankle at about a 90-degree angle. Start where your toes meet the body of your foot. Hold the loose end of the bandage at the side of your foot. Wrap the bandage around the ball of your foot once, keeping it somewhat taut with a light pull.

2. After this, slowly start circling your way around the arch of the foot. Pull the bandage diagonally from the bottom of the toes across the foot's top and circle it around the ankle. Now bring the bandage diagonally across the top of the foot and under the arch in a figure-eight pattern.

3. If you're using a felt pad, when you get to the anklebone, wrap the bandage around the felt piece so it stays in place under the anklebone. Continue around the ankle and foot in a figure eight, moving toward the heel on the bottom and toward the calf at the top of the eight.

4. The wrap should cover the entire foot and end about 8 to 10 centimeters (3 to 4 inches) above the ankle. Most compression wraps are self-fastening or come with clip fasteners. If not, use tape to secure the end. The wrap should be snug but should not cut off circulation to the foot.



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Taping of the Wrist

PURPOSE: Provide wrist support

INDICATIONS: Mild wrist sprains/strains; also to provide general support

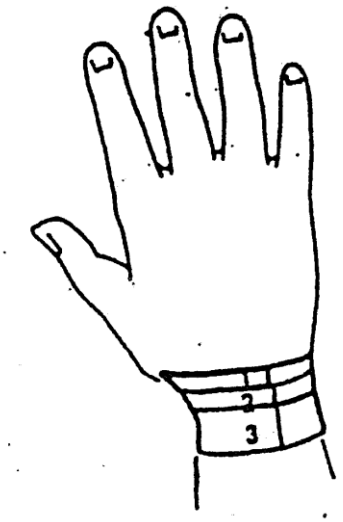
MATERIALS:

- Pre-wrap
- 1 ½" adhesive tape

POSITION OF ATHLETE: The athlete stand with the affected hand in a neutral position and the fingers spread apart or a fist made (to contract the muscles)

PROCEDURE:

1. Apply pre-wrap starting at the base of the wrist and move toward the elbow approximately 3-4 inches.
2. A strip of tape at the base of the wrist is brought from the palmar side upward and around the both sides of the wrist.
3. In the same pattern, with each strip over lapping the preceding one by ½ of its width, 3 additional strips are laid in place.



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Taping of the Thumb

PURPOSE: Provide thumb and wrist support

INDICATIONS: Mild thumb sprains/strains and to reduce re-injury after thumb fracture

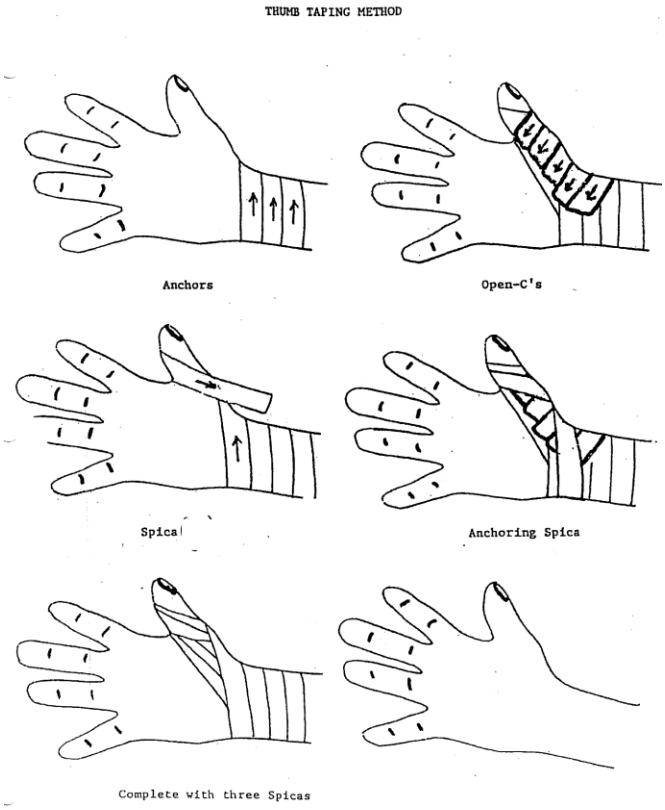
MATERIALS:

- Pre-wrap
- 1" adhesive tape
- 1 ½" adhesive tape

POSITION OF ATHLETE: The athlete stand with the affected hand in a neutral position and the fingers spread apart and thumb in an "up" position

PROCEDURE:

1. Apply anchor strips to the wrist similar to the instructions in above "taping of the wrist"
2. Apply 3 spicas to the thumb. Start at the wrist and go around the base of the thumb in a "support ribbon" motion.
3. Apply open C's. These are apply from the palm side to the dorsal side of the hand covering the spicas.
4. To close apply 1 more spica and anchor strip.



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Taping of the Ankle

PURPOSE: Provide the ankle joint support

INDICATIONS: Mild ankle sprains and to reduce re-injury after ankle fracture/sprains

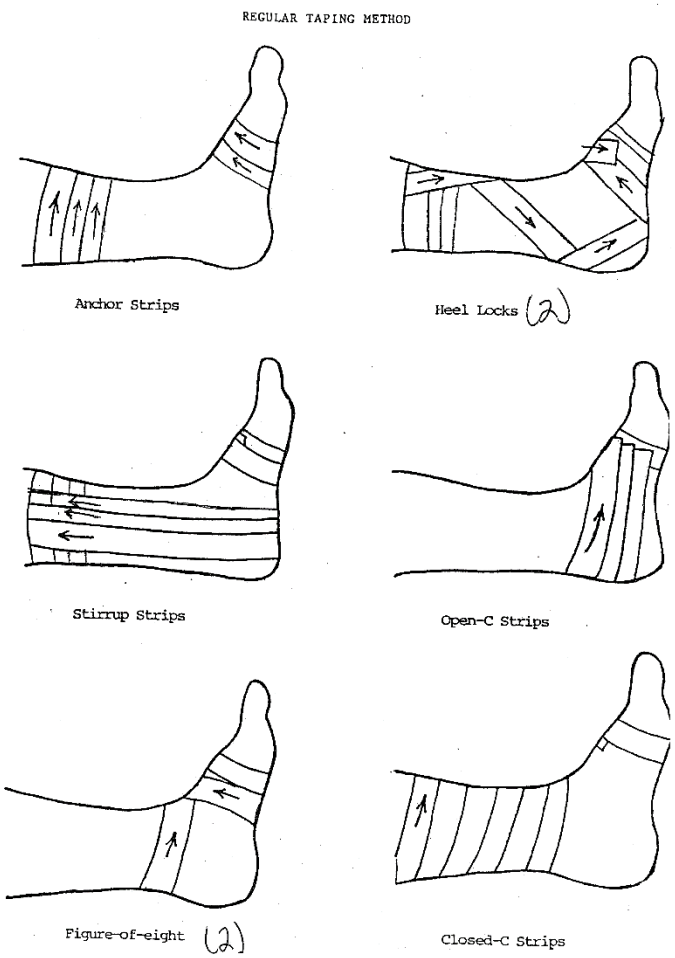
MATERIALS:

- Pre-wrap
- 1 ½ ” adhesive tape

POSITION OF THE ATHLETE: The athlete sitting with ankle elevated and ankle is at a 90° angle

PROCEDURE:

1. Cover the foot and ankle with pre-wrap, starting from the arch of the foot and going up to the bottom of the calf muscle.
2. Place two anchors of athletic tape at either end of the pre-wrap
3. Add "stirrups" of athletic tape. One stirrup that starts on the inside of the ankle, goes under the heel, and attaches to the other side of the anchor of athletic tape. Add two more stirrups of athletic tape over the same area so you have 3 total.
4. Create a figure 8 with the tape. Start on the inside, wrap the tape around the lower leg, then cross over the top of the ankle and continue to wrap under the arch.
5. Apply 4 heel locks. Start on the back side of the leg at the base of the calf move at a downward angle towards the heel, cross under the foot and pull up through the arch to the top side of your foot. You can alternate either inside or outside but make sure to complete 2 of these on either side of the heel.
6. Close up all areas of pre-wrap with open C strip till they become closed C strips. These start from the inside of the foot to the outside working your way up the ankle.
7. Create a figure 8 with the tape. Start on the inside, wrap the tape around the lower leg, then cross over the top of the ankle and continue to wrap under the arch.



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