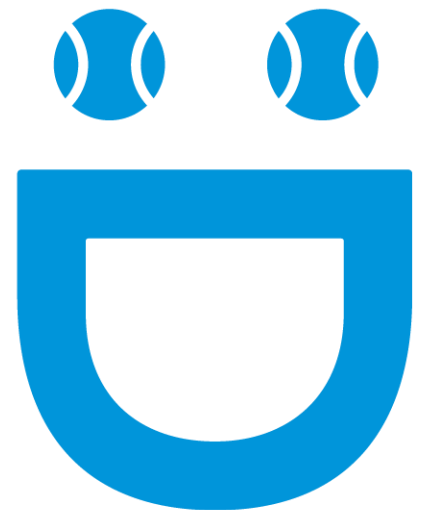


# Preventing Concussions, Dehydration & Overuse Injuries in Youth Sports



Sports Injury Prevention Task Force



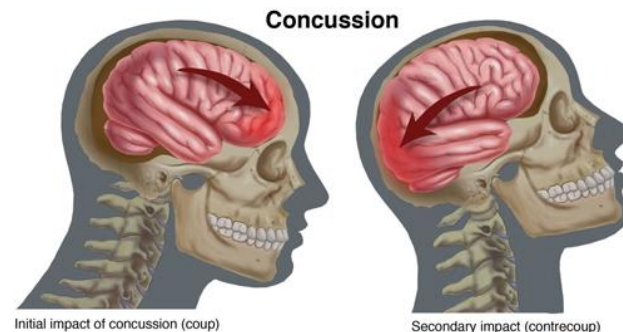
# Concussion

## Information about Concussions

- Complex process affecting the brain, induced by traumatic biomechanical forces such as a blow to the head
- Symptoms reflect functional disturbance, not structural injury
- May or may not result in loss of consciousness
- Young athletes are 3 times more likely to sustain a concussion than collegiate or professional athletes

## Signs & Symptoms

- Loss of consciousness, seizure like activity
- Retrograde or Anterograde amnesia
- Confusion and disorientation
- Coordination disturbance
- Answers slowly
- Asks same question repeatedly
- Headache
- Nausea
- Balance problems/dizziness
- Fatigue
- Drowsiness
- Feeling like 'in a fog'
- Difficulty concentrating & remembering
- Sensitivity to light and noise
- Blurred vision
- Feeling slowed down



# The Coach's Role with Concussions

- It is important for Coaches to:
  - Recognize a potential concussion
  - Remove the athlete from play
  - Refer to appropriate medical professional
    - Physician (MD, DO)
    - Certified Athletic Trainer
    - Neuropsychologist
- An athlete can only return to play if:
  - No longer experiencing any signs and/or symptoms
  - Has been cleared by a medical professional (written clearance)



**WHEN IN DOUBT SIT 'EM OUT**

If you suspect someone has a **CONCUSSION**, remove them from play and seek medical attention.

**! CONCUSSION WARNING SIGNS**

- Feeling sluggish, hazy, foggy or groggy
- Concentration or memory problems
- Not "feeling right" or "feeling down"
- Balance problems or dizziness
- Headache or "pressure" in head
- Confusion
- Nausea or vomiting
- Double or blurry vision
- Sensitivity to light or noise

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# Dehydration

- Dehydration – loss of fluids from:
  - Sweat
  - Urination
  - Vomiting/diarrhea
  - Respiration
- Can vary from mild to more life-threatening (can affect physical performance and mental status)
- While not always associated with heat illnesses, dehydration often occurs when exercising in the heat

**AM I DEHYDRATED?  
HERE'S HOW TO TELL**

**SIGNS OF MILD TO MODERATE DEHYDRATION INCLUDE:**

-  **THIRST**
-  **DRY MOUTH**
-  **RAPID BREATHING**
-  **RAPID HEARTBEAT**
-  **FATIGUE**
-  **HEADACHE**
-  **SEVERE DIZZINESS OR LIGHTEADEDNESS**
-  **UNCONSCIOUSNESS OR DELIRIUM**

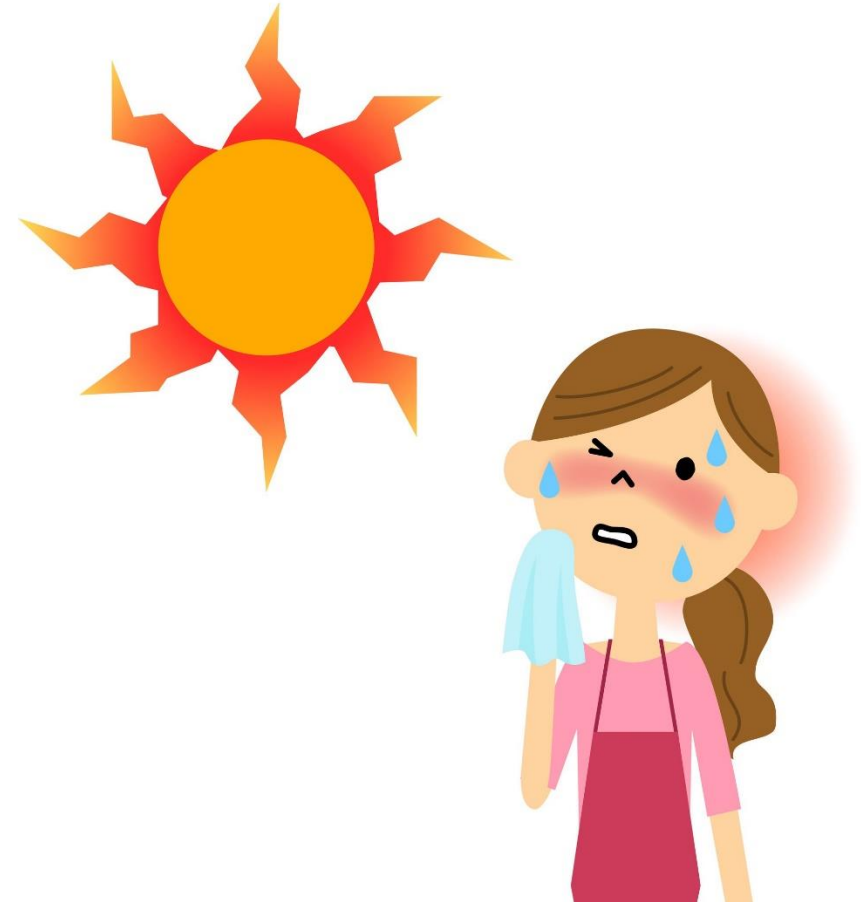
# Heat illness

- **Cramps**
- Typically caused by dehydration -  
> loss of fluid & electrolytes
  - Signs/Symptoms:
    - muscle cramping in the calves, back, abdomen
    - other signs of dehydration
  - Care:
    - Remove the athlete from activity
    - cool the athlete
    - give water and sports drinks to increase fluid and electrolyte intake
    - gently stretch the area that is cramping



# Heat illness

- **Heat Exhaustion**
- Signs/Symptoms:
  - pale or ashen skin
  - heavy sweating
  - rapid, weak pulse
  - fatigue
  - nausea/vomiting
  - Headache
- Care:
  - remove from activity
  - move to a cool place
  - loosen or remove any tight or overly wet clothing (traps the heat)
  - cool the athlete by fanning, spraying with cold water
  - give water to drink
  - watch for worsening conditions



# Heat illness

- **Heat Stroke**
- Signs/Symptoms:
  - flushed, hot skin
  - not sweating
  - decreased heart rate & blood pressure
  - increased respiration
  - faint/dizzy
  - confused/Combative
  - loss of consciousness
  - increased core body temperature
- Care:
  - Remove from activity
  - Call 911
  - Immediately immerse the athlete in cold water up to the neck in order to lower the body temperature prior to the ambulance arriving

**Two Types of Heat Illness**

**Heat Exhaustion**

- 1) dizziness
- 2) headache
- 3) sweaty skin
- 4) fast heart beat
- 5) nausea, vomiting
- 6) weakness
- 7) cramps

**Heat Stroke**

- 1) red, hot dry skin
- 2) fever
- 3) confusion
- 4) fainting and finally,
- 5) convulsions leading to death if not immediately recognized and treated

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# Preventing Heat illness

- Acclimate days prior to competition
- Hydrate before, during & after activity (water)
- Change practice/game times to avoid hottest parts of the day
- Give more frequent breaks
  - Break in the shade and use cooling methods
- Use appropriate clothing and equipment
- Monitor each other, by coaches and medical staff when available
- At risk individuals
  - Prior history of heat illness
  - Unconditioned
  - Young
  - Obese
  - Recent GI or respiratory illness
- Urine color can indicate proper hydration
  - Hydrated – clear urine
  - Dehydrated – dark urine





# Overuse Injuries

- An estimated 2.5 million injuries occur annually – many are caused by overuse (approximately 1/2 to 1/3)
- These include injuries to the:
  - Shoulder
  - Elbow
  - Wrist
  - Back
  - Knee
  - Lower Leg
  - Ankle
  - Foot



# Preventing Overuse Injuries

- Have athletes report any pain, injury or illness to a coach or parent so it doesn't worsen
- Use ice to help reduce pain and swelling
- Refer the injury to a physician if the pain does not go away after a few days
- Gradual progression at the start of a season



# Preventing Overuse Injuries

- Do not specialize in 1 sport before age 15 at the earliest
- Encourage kids to be multisport athletes
- Begin all activity with a time of warm up & stretching (hold each stretch for 20-30 seconds)
- At least 1 (or 2) days off from a particular sport each week
- 10 consecutive weeks of rest from a particular sport every year (can play other sports at that time)



# For More Information

[www.safekidslincoln.org/sports-injury-prevention/](http://www.safekidslincoln.org/sports-injury-prevention/)



Sports Injury Prevention Task Force

