**HEAT ILLNESS PREVENTION AND MANAGEMENT**

**PREVENTION**

* Educate athletes on importance of hydration and how to properly hydrate.
  + I.e. checking urine color, drinking 16oz for every lb lost, using sport drinks during hotter days or extended workouts.
* Educate athletes and coaches on the signs and symptoms of heat cramps, heat exhaustion, heat stroke, as well as the danger to the athlete’s life each can cause.
* Weigh athletes prior to, and after every practice to monitor weight loss.
  + During 2 a days, weight them in before and after both practices.
* Always be prepared.
  + Have cold tubs out and filled with water and ice prior to practices during months when weather can be warm. Have extra ice beside the tub just in case. Having all this and being ready for immediate response is the difference between life and death.

**TREATMENT**

* Heat cramps (dehydration and muscle cramping)
  + Remove athlete from play
  + Stretch affected muscles lightly
  + Hydrate with electrolytes
  + Apply ice bags or ice cup to affected area to cool athlete.
  + Monitor patient. Athlete may RTP next day, and when weight is returned to normal
* Heat exhaustion (excessive sweating, fatigue, nausea, increased thirst, confusion, anxiety, fainting)
  + Remove athlete from play and into cool environment.
  + Apply ice bags to the body (i.e. arm pits, inguinal region, and over extremities) or place athlete partially submerged in cold tub.
  + Monitor athlete.
  + Give IV solution if available.
  + Athlete will remain from play until body weight is returned back to normal
* Heat stroke (Little to no sweating, dry skin, confusion, dizziness, shortness of breath, nausea, extremely high body temperature, fainting)
  + Immediately get athlete to cold tub and submerge most of the body
  + Measure core body temperature (rectal temperature)
  + Once body is cooled (38.3 to 38.9 degrees C, or 101 to 102 degrees F), remove to avoid overcooling and keep in cool environment.
  + Monitor athlete and give IV to rehydrate.
  + Athlete remains out of participation until body weight is back to normal.

**RHABDOMYOLYSIS**

* + a breakdown of muscle fibers and release of their contents into the bloodstream.
  + Can lead to kidney failure.

**CAUSES**

Alcohol or drugs

Extreme muscle strain

Automobile accident or other crush injury

Long lasting compression

High doses of corticosteroids

Electrical shock or 3rd degree burn

Hyperthermia or heat stroke

Seizures

Metabolic disorders

Myopathy or muscle diseases

Viral infections

Bacteria infections leading to toxins in the bloodstream

**SIGNS AND SYMPTOMS**

Cramping in multiple and unusual areas

Painful, swollen, bruised, or tender areas of the body

Muscle weakness or trouble moving arms or legs

General feelings of illness

Nausea or vomiting

Confusion, dehydration, fever, or lack of consciousness

Dark-colored urine; reduced or no urine output

**TREATMENT**

Early recognition and admission to the hospital are necessary to prevent further damage and potential death.