

## ***BEAT THE HEAT***

When practicing and playing at high levels of intensity otherwise called game intensity, the body's temperature rises. The body produces heat from burning the energy needed perform activity. This increase in body temperature causes the body to produce sweat to promote cooling. The body must maintain a specific body temperature in order to sustain life, when the body temperature rises; it has to work against the heat to keep the body temperature from elevating significantly. When participating in game intensity activity or when playing for long periods of time in the summer heat, the body must fight against the heat from the sun and air temperature, but also the body must fight against the heat, the body is produces during increased activity.

Intensity exercise Athlete must worry about trying to stay cool from the heat caused from, the body must also fight against the hot air temperature and direct sunlight. Direct sunlight exposure for a long period of time can zap an athlete's energy level and can promote rapid dehydration, which can lead to a heat related injury.

The body has a natural cooling system that is very efficient, but sometimes our natural cooling systems fail to meet the demands placed upon it. When this happens, heat injuries take place. If the body is unable to cool itself against these challenges, it can be life threatening for the athlete. There are many things that athletes can do in order to fight the demands of the heat.

Summer sports are more prone to having a higher number of heat related injuries than sports that are in-season at other times of the year. Factors such as an athlete's intensity level, length of practice or game, direct exposure to sunlight, hydration status, air temperature and humidity all can play a major role in the likelihood of heat injuries. Excessive can be the cause for the following injuries: Heat cramps, heat exhaustion, and heat stroke.

The most common heat injuries are Heat Cramps, Heat Exhaustion and Heat Stroke.

More physically fit athletes are less likely to sustain a heat related injury. This is due to an improved ability to tolerate heat; physically fit athletes have a greater sweat rate and improved acclimating ability to hot environments.

### **Heat Cramps**

Heat cramps are usually brief and cause severe and sometimes activity ending pain. The most common heat cramps take place in the arms, legs and in the abdomen area.

How to Act:

- Find a cool, dry place that is out of direct sunlight where the athlete can sit and rest.
- The athlete should consume a diluted sports drink

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- Massaging the cramped muscle may also help reduce the cramp

## Heat Exhaustion

Heat exhaustion is a more severe injury than heat cramps, usually heat exhaustion is caused by dehydration, cold and clammy skin, weakness, fatigue and irritability, possible headache and possible vomiting.

How to Act:

- The athlete should be immediately removed from the heat and taken out of direct sunlight
- Remove clothing to expose the skin, this will help the skin cool faster.
- Try to cool the athlete with a wet and slight cool cloth (not cold), have the athlete lay in a cool (not cold) bath.
- The athlete should consume cool beverages and try to eat something
- It is important to seek medical attention if an athlete experienced heat exhaustion because heat exhaustion can lead to heat stroke.

## Heat Stroke:

Heat stroke is a life threatening condition and need emergency medical condition as soon as possible. When an athlete experiences heat stroke, the body has lost its ability to keep the body temperature regulated. If not treated immediately body temperature to reach 105 degree Fahrenheit and possibly higher (normal core temperature is 98 degrees Fahrenheit). High core temperatures can lead to brain damage and potential lead to death. Signs of heat stroke include: hot, dry skin, with no sweating, severe head ache, dizziness, confusion, fatigue, decreased responsiveness, and alertness, seizures are possible.

How to Act:

- Immediately seek emergency medical attention
- Remove clothing and try to cool the body by covering it with towel soaked in cool water (not cold).

Examples:

- Pour cool (not cold) water onto skin
- Put the athlete in a cool (not cold) bath
- DO NOT GIVE THE ATHLETE FLUIDS WITH HEAT STROKE!

Here are 12 tips and guidelines to help prevent against heat related injuries in the summer

- Stay hydrated, athletes should drink water frequently throughout the day, before, during and after physical activity. Athletes should try to consume at least a gallon of water per day, but it is important for athletes to not consume large quantities of water in short period of time, this will

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have an adverse affect on hydration status. Most athletes do not drink enough water and other fluids do not replace the need for water.

- A good sign of good hydration status is when urine color is clear
- Refrain from drinks high in caffeine such as: soda, energy drinks or coffees, caffeine is a diuretic and will reduce an athlete's hydration status
- Do not wait until you are thirsty to drink, thirst is the first sign of dehydration, try to drink cold water or a sports beverage every 10 min
- Stay out of direct sunlight when possible, direct sunlight robs the body of energy
- Wear a well ventilated hat if when possible
- Get good sleep, the additional stress caused by heat causes excess wear and tear on the body
- Practice on real grass instead of artificial field turf, if applicable. Artificial fields are filled with rubber materials; these materials absorb and radiate heat from the sun.
- Pay close attention to body weight on hot days, if body weight changes throughout the day; try to sip on fluids frequently until weight is consistent. It is a good habit to check body before practices/game and after. If there is a loss in body weight, athletes should try to consume 110% of lost weight with water. This re-hydrating process should take up to 6, not within the first hour after practices or games.
- Wear light and loose clothing that allows for air to cool the skins surface, non-breathable materials trap the heat that is radiating from the body. If this heat is unable to escape, it will cause the body heat to rise at a rapid rate.
- If possible, reduce outdoor activity to before 11 am and after 6 pm on hot summer days, try to practice in the shade or evening if possible.
- Athlete should try to slowly introduce his/her body to the heat by progressively increasing their time outdoors in the heat
- Stay indoors or in the shade between multiple practices or games on the same day.