Tips for Preventing Heat Illness

Heat illness occurs when your body cannot properly cool itself and your body temperature rises to dangerous levels. In addition to decreases in athletic performance, the following conditions may result:

**Heat Cramps:** Painful cramps which result from dehydration or electrolyte imbalance.

**Heat Syncope:** Temporary loss of consciousness resulting from dehydration.

**Heat Exhaustion:** Occurs when core temperature ranges between 97-104°. This results in dizziness, weakness, fatigue, disorientation, headache and/or nausea. Activity must stop immediately and the athlete must be cooled.

**Heat Stroke:** Occurs when core temperature exceeds 104°. Symptoms are very similar to extreme cases of heat exhaustion. This results in organ system failure and death if immediate cooling does not take place.

**Hyponatremia:** Occurs when exercising from more than 4 hours and ingesting too much water. This presents similarly to heat exertion or heat stroke without the increase in core temperature. This can be avoided with a well-balanced diet and consuming a sports drink that contains sodium in addition to water.

Exercising in the heat can be dangerous when certain measures are not taken. Follow these simple precautions to reduce the risk of heat illness.

- Acclimate yourself to the heat prior to beginning pre-season training. Begin by exercising in the heat for approximately 30 minutes and gradually increasing the duration and intensity until you are mimicking practice sessions. This should be done over 7-14 days (Binkley 2002). Be sure to properly hydrate during this time as outlined below and consume more sodium during the first 3-5 days.
- Sleep 6-8 hours a night in a cool environment.
- Eat a well-balanced diet.
- Wear light weight, dry fit clothing while exercising.
- **STAY HYDRATED PRIOR TO, DURING and FOLLOWING EXERCISE.**
  - **Pre-exercise** – Consume 17-20 fl oz of water or a sports drink containing sodium 2-3 hours prior to exercise. Drink 7-10 fl oz 10-20 minutes immediately before practice (Casa 2000).
  - **During exercise** – Consume 7-10 fl oz every 10-20 minutes (Casa 2000). Don’t only drink when thirsty! If the practice is intense or will last longer than an hour a sports drink should also be consumed to replace carbohydrates and electrolytes.
  - **Post exercise** – Evaluate dehydration levels and rehydrate accordingly. This can be done simply by monitoring the color of your urine. Your urine should be a clear/very pale yellow. The darker the urine the more dehydrated you are. You can also weigh yourself prior to exercise and then again following exercise for a more accurate measurement of fluid loss. Thirteen to fifteen fl oz should be consumed for every 1 lb lost (Binkley 2002). No more than 2% of body weight should be lost during activity. The optimal fluid to consume following a training session is a sports drink including carbohydrates, sodium and potassium.
- Avoid caffeinated beverages as they increase urine output and can lead to dehydration.

*It is important to note that these are generalized guidelines. If you are more susceptible to heat illness individual plans can be designed with your athletic trainer.*
References

