USD 250 HYDRATION STRATEGIES TO PREVENT HEAT ILLNESS

Proper HYDRATION and ACCLIMATION practices stand out as the two primary prevention methods for decreasing the risk of heat illness. The following are some basic hydration principles to follow:

Appropriate hydration before, during and after exercise is important for maintaining peak athletic performance. Fluid losses of as little as 2% of body weight (less than 4 pounds in a 200 lb athlete) can impair performance by increasing fatigue. This is important because it's common for some athletes to lose between 5-8 pounds of sweat during a game or intense practice. So it's easy for athletes to become dehydrated if they don't drink enough to replace what is lost in sweat.

- Recognize and respond to early warning signs of dehydration
- DRINK EARLY and DRINK OFTEN during activity. Do not let athletes rely on thirst. Schedule frequent fluid breaks for re-hydrating. If athletes wait until they are thirsty it may be too late.
- Athletes should be weighed before and after warm weather practices. They need to drink appropriate amounts of fluid for the amount of weight lost. **An athlete should not be allowed to participate if they are at a 2% or greater weight deficit from the beginning of their previous practice.** Also, use a urine color chart (see back page) to determine hydration levels before activity.
- Encourage GOOD hydration choices: water, sport drinks with low sodium and carbohydrates, AVOID: energy drinks, soda, fruit juices, carbonated beverage and caffeine.
- Encourage drinking fluids, not pouring them. Dumping fluid over the head won't help restore body fluids or lower body temperature.
- Provide easily accessible fluids.

Before Exercise

- Drink 16 oz. of fluid before activity/exercise (2 hours)
- Drink another 8-16 oz. of fluid every 15-20 minutes

During Exercise

- Drink 4-8 oz. of fluid every 15-20 minutes

After Exercise

- Drink 16-20 oz. of fluid for every (one) pound lost during exercise to achieve a normal fluid state and not begin the next practice dehydrated. Rehydration should take place over a safe and comfortable period of time. Excessive fluid intake over a short amount of time can be dangerous (see hyponatremia information below).

Fluid Counter

- 24 oz. of fluid = 1 ½ bottles of water
- 16 oz. of fluid = 1 full water bottle
- 7 oz. of fluid = ½ of a bottle of water or 10 BIG gulps of water
- 4 oz. of fluid = ¼ of a bottle of water or 5 BIG gulps of water

Hyponatremia is a rare, but potentially deadly disorder resulting from the over-consumption of water or other low-sodium fluid (including most sports drinks). It is most commonly seen during endurance events, such as marathons, when participants consume large amounts of water or other beverages over several hours, far exceeding fluid lost through sweating. The water in the blood and the sodium content of the blood is consequently diluted to dangerous levels. Affected individuals may exhibit disorientation, altered mental status, headache, lethargy and seizures. A confirmed diagnosis can only be made by testing blood sodium levels. Suspected hyponatremia is a medical emergency and EMS (Emergency Medical Services) must be activated. It is treated by administering intravenous fluids containing high levels of sodium.

HEAT ILLNESS SIGNS, SYMPTOMS & MANAGEMENT

The signs and symptoms of heat illness shown below do NOT necessarily run on a continuum. This means that a person could suffer from heat stroke without showing less severe heat illness conditions such as heat cramps.

HEAT CRAMPS: SIGNS & SYMPTOMS - Cramping in active muscles, most common abdominals and legs.

MANAGEMENT:

- Instruct athlete to drink WATER or a sports drink
- Athlete should NOT be allowed back to activity until cleared by a physician.
- Move athlete to cooling area and immerse in cold tub (45-60 degrees) for 15 minutes. Rotate wet ice towels over the entire body or douse with cold water if a cold tub is not available.

HEAT EXHAUSTION: SIGNS & SYMPTOMS -

1) Rapid weight loss (water)
2) Dizziness/fainting
3) Reduced sweating (clammy skin)
4) Headache/nausea/vomiting
5) Muscle cramps
6) Fatigue/weakness

MANAGEMENT:

- Treat as an emergency, call 911.
- If conscious give WATER or a sports drink slowly.
- Move athlete to cooling area and immerse in cold tub (45-60 degrees) for 15 minutes. Rotate wet ice towels over the entire body or douse with cold water if a cold tub is not available.

HEAT STROKE: SIGNS & SYMPTOMS -

1) Loss of consciousness
2) Disorientation
3) Seizures
4) Nausea/Vomiting
5) Hot, dry skin - no sweating

MANAGEMENT:

- Heatstroke is life-threatening, call 911.
- Do NOT give water or fluids!
- Move athlete to cooling area and immerse in cold tub (45-60 degrees) for 15 minutes. Rotate wet ice towels over the entire body or douse with cold water if a cold tub is not available.

Athlete's Name Printed: _____ Date: _____

Athlete's Signature: _____ Date: _____

Parent's Name Printed: _____ Date: _____

Parent's Signature: _____ Date: _____