Heat Guidelines

The following is adapted from the US soccer resource center hydration and heat illness guidelines. Please refer to the US soccer website for the complete guidelines. The upcoming season brings excitement, but also there is risk for serious illness with practices starting in the heat of August. The athletes need to begin planning and preparing now for the upcoming season.

Children and adolescents are at increased risk of heat illness due to several factors: they absorb more heat due to a greater surface area to mass ratio than adults, they may have reduced ability to dissipate heat thru sweating, they often do not have the drive to drink enough to replenish sweat losses and they may be driven by pressure to perform that they deny symptoms or fail to hydrate appropriately during breaks in order to impress the coach with their toughness.

You can help prevent heat illness by starting heat acclimatization now if you have not already. They should be exposed to the heat for 45-60 minutes for several days before rigorous training begins. They should practice methods of adequate drinking during this time. This would be a great opportunity to work on ball skills in the yard and do light running that I am sure the coaches will appreciate when practices start.

This acclimatization will allow the child to increase sweat rate and amount which will help with heat loss. This sweat will need to be replaced with adequate fluids. Basic guidelines include hydration with 12-16 ounces 30 minutes before beginning. Drink at least every 20 minutes during training. Children under 90 lbs should drink roughly 5 ounces at each break and those over 90 lbs should drink 9 ounces. Post activity, the child should drink at least every 20 minutes for the next hour. Teach your child to moniter their urine output and color. It should be pale yellow to clear. If it is darker, then they may be dehydrated.

In extreme heat, flavored sports drinks are the preferred drink because children drink more of them. For shorter activities or days that are not excessively hot, water alone will be adequate. Fruit juices have too much sugar which affects absorption and can upset the stomach. Energy drinks are dangerous because they often contain caffeine or other stimulants that affect basal body temperature and they have high concentrations of carbohydrates that slow stomach emptying.

Signs of dehydration include: noticeable thirst, headache, nausea, cramping, weakness, irritability, decreased performance, dizziness, muscle cramps, poor concentration, decrease urine output or dark urine. Treatment of muscle cramps includes hydration, stretching, massage, rest in a cool area, ice to the cramped area and possible salt replacement with a food source such as pretzels.

Symptoms of heat exhaustion include the above plus fatigue, the sensation of being chilly, and a rapid pulse. Treatment is the same as for dehydration, plus have the child lay down in a cool area and elevated the legs. Symptoms should resolve fairly quickly. If not, the child may be progressing to heat stroke.

Heat stroke is a medical emergency that can result in death if not treated properly. Symptoms include a very high core temperature, altered mental status (confusion, lethargy or disorientation) or even physical collapse. Treatment should include calling for immediate help (911), cold wet towels, water spray, ice packs or even an ice bath. Anything possible to bring down the core temperature should be done. Since nausea and

vomiting are common, do not push fluids. This can be done intravenously. Transportation via ambulance to a medical facility is recommended. With proper planning, preparation and adequate hydration these serious complications can be avoided. Good luck on the upcoming season and keep hydrated.