

ITU POLICY ON FLUID REPLACEMENT

Heat stroke is the most serious of heat related illness and is a life-threatening medical emergency. Heat stroke is currently the third leading cause of death in athletes behind cardiac disorders and neck trauma. The key to preventing heat illness is hydration. Athletes should be encouraged to drink before, during and after activity. Advise the athletes to prevent the dehydration is a goal of the race organizer as well the athletes themselves. Adequate hydration is also one of the most important elements to maintain a high-level of performance that begins to become impaired when the body loses more than 2-3% of body weight, primarily a fluid losses from sweating. However drinking excess amounts of fluids sodium-free may lead to over-hydration and exertional hyponatremia (low blood sodium) that can be a life-threatening condition, and is more likely to occur in slower triathletes who are exercising in long distance triathlon.

The triathletes have the responsibility to be aerobically fit and acclimatized to environmental conditions, hydrate adequately before, during and after the race, and not to compete when they are at added risk for overheating due to recent/current illness.

The risk of heat related illness is greatest when high-environmental temperatures occur early in the competitive season when participants may be inadequately prepared and have not yet acquired natural acclimatization to the heat.

Before the race

- Acclimatization typically takes 7 to 10 days. Each individual athlete must acclimatize to the heat and attain an appropriate fitness level for the sport being played to prevent heat illness. A gradual increase in exertion, environmental exposure time, and equipment wear is necessary to gain fitness and heat tolerance.
- Use the same sports drinks in the training and the race and salt food heavily for several days prior to the race.
- We recommend taking 500-600 ml of water or sports drink during 2-3 hours before the race and another 300 ml 10-15 minutes before the start.
- Athletes should be evaluated before competing with respiratory, gastrointestinal or other febrile illness as these conditions have been show to increase the risk of heat illness.
- Be careful for WBGT which let you know the possibility of heat illness.
- Teaching athletes to monitor their urine color and output may be prudent to assist the process of hydration. The goal of the athlete is a copious output of clear to light yellow urine.

During the race

- Consume almost 200 ml of sports drink every 15/20 minutes as long as exertion continues.
- Consume sports drink beverage which contain sodium and glucose or glucose polymer. This combination replaces electrolytes lost in sweat, aids in preventing hyponatremia, and provides carbohydrate for energy.

After the race

- Begin to re-hydrate and restore muscle glycogen as soon as possible after the race drinking sport drink beverage containing sodium and potassium and carbohydrates.
- The replenishment of muscle glycogen is best carried out in the first 2 hours post competition.
- Day to day body weight measurements and urine color should be used to assess the dehydration.

- After the race the athlete should weigh himself to determine the amount of fluid loss, and replace this loss drinking.