

Heat and the Umpire

Baseball umpires work in conditions that, to some degree, no pun intended, may expose them to some of the deleterious effects of extreme heat. The umpire frequently lacks the availability of shade, lacks the time that teams get to rest while they are up to bat, wears dark clothing, and minimal skin is exposed from which to allow heat to dissipate from your body. Add to this other issues such as hydration, cardiac issues, medical issues, medications and other factors that can make individuals more or less vulnerable to problems. Earlier in a hot season may have a higher risk and excess weight increases the risk. Since one of the earliest effects can be on the brain, the precision required to make calls can be affected and one you all work so very hard to get correct every time. The seasonal practice of an umpire may lead one to develop a seasonal approach to conditioning. I would encourage all to utilize a year round conditioning program as well, for your optimum health and performance.

Strike 1!

Heatstroke is a very serious condition that can be fatal and requires emergency treatment.

Serious forms of injury can occur when body temperature rises above 104 degrees and damage to brain, heart, kidney and muscles can occur. Early signs can include headache, nausea, vomiting, muscle cramps, fatigue, dizziness, or clouding of thought and delayed reaction times. At some point your body loses ability to regulate your heat loss and as temperature rises cells can start to die by almost “melting” particularly in the brain. Heatstroke is the term used for the most serious manifestations of heat illness but it is really a continuum that can start with swelling and a rash or cramps and then progress. Heat stroke in the United States claims more lives each year than all other weather related exposure. Thousands of deaths each year occur from excessive heat exposure.

Strike 2!

You cannot tough out a heat illness.

The first issue to address in our macho world of sports is that “it is not a sign of weakness” to pull yourself out of a game or ask for help. Often times this is one of the biggest hurdles to overcome. This “macho” approach occurs in all facets of sports whether we are talking about broken bones, sprains or concussions, no one wants to come out of the game or be seen as weak. Its not weakness, its being human and we all are vulnerable. Look for mental status or behavior changes among your colleagues because they won’t recognize this themselves. Often the skin is dry instead of moist and the skin may turn very flushed or red. Breathing may be shallow and the pulse may be fast which puts a further burden on the heart. Headaches may be a sign. The very young and the over 65 age group are at greater risk because they are less likely to tolerate temperature changes and have greater difficulty remaining hydrated. Also keep in mind that some medications may predispose you to dehydration or other risks. Diuretics and beta blockers as well as some antidepressants can affect your response

to heat. If you have any heart or lung condition this will make you more susceptible. Also alcohol can have a dehydrating effect.

Prevention and Treatment

Acclimate

Take into account the heat index i.e. heat and humidity

Wear loose and light weight clothing when possible

Protect against sunburn because it affects your bodies ability to cool itself

Drink plenty of fluids, starting the day before a contest

Don't take salt tablets

Minimize alcohol intake

Moisture and a fan on your exposed skin is one of the most effective ways while you are on field or off field. This combination of moisture and air circulation to aid in cooling is referred to as "convective heat transfer or convection" which is one of the most effective ways of heat transfer. Cool towels or ice applied to the head can assist in cooling and frequently does not tend to cause shivering.

Note: Application of ice or moisture that is too cold will induce "shivering" which actually causes increased heat generation.

Be safe and "batter up".

Douglas J. Ramos, M.D.

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