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Acclimatization to heat

If reminded most readers of this article will remember how it feels running and biking in late May in Richmond. It is uncomfortable. It feels hot, and as if your face is burning. It can feel difficult to sweat. Running when it is 80 degrees in May feels much worse than running at 80 degrees in June. The reason is the body has the ability to adapt to changes in environment.

Heat acclimatization is a physiologic process that occurs when the temperature change occurs between spring and summer. It is similar to the acclimatization that occurs when switching from sea level to high altitude.

Several physiologic changes occur as we acclimatize to changes in environmental temperature. The most noticeable change is we sweat earlier and more. If you pay attention in early May it may take 20 minutes of exercise before you start to glow with seat, but in June you start sweating in the first 5 minutes or exercise. Sweating is how we dissipate the heat generated from exercising. During cooler weather the body wants to conserve heat in order to stay warm, but during hot weather we need to get rid of the heat. Sweating and evaporation is how the body gets rid of the heat generated by muscle contraction. If we sweat more, we can evaporate more heat. Seat glands will begin to produce significant quantities of sweat at an earlier point in your hot-weather workouts.

The amount of electrolytes (salt) in sweat is less in athletes who are acclimatized compared to athletes who are not acclimatized. Athletes who are acclimatized to heat have more dilute sweat.

Most experts feel acclimatization requires exercising in heat over a two-week period. We begin to acclimatizing when the first consistent period of days with the temperature of greater than 80 degrees occurs.

There is some evidence that the higher the fitness level the closer an individual is to being fully acclimatized. In other words the fitter you are the less your suffer during the period of heat acclimatization. If you have arranged your training for a June Triathlon it is likely your fitness level is high and you will suffer less during the first few hot weeks of summer.

If we are not acclimatized to higher temperatures, we are at a greater risk for suffering serious heat illness when exercising and racing in warm weather. There is a greater risk of heat illness in spring triathlons than fall triathlons.

When the season change from spring to summer, we need to recognize that it is safer to decrease intensity and duration of our workouts and races. During this time period we should make an extra effort to stay well hydrated before, during, and after exercise.

Psychologically, while we are going through the process of acclimatizing workouts, we will feel very uncomfortable and our performance level will fall off. It is important to recognize this and to not get discouraged. Things will feel better. It is wise to set reasonable expectations and not to expect to set personal records until acclimatization has occurred.

At the beginning of summer slow down, drink more and dress less.

Bottom-line, get use to it.