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### **Tips for Racing and Training in the Heat and Humidity**

Nothing will slow you down or stop you like heat and humidity. As the temperatures rise in Summer, so does the number of heat-related problems experienced by triathletes. Most experts agree that your body will acclimatize to heat and humidity – mostly in the first two to three weeks of exposure, and maximally after about two months. However there is a genetic limit on how much you can acclimatize.

We can't all have the genetic gifts and ability that Dave Scott and Mark Allen had to tolerate the scorching heat and stifling humidity in the lava fields of Kona! But there are ways to improve the ability of the body to tolerate extreme temperatures and to move the process along by cautiously increasing your exposure to heat and humidity. The payoff will be safer and more tolerable running, swimming and cycling when training and racing.

#### **Acclimate Your Body First**

On the first hot days of late spring, start by prepping your body with a few bikes and runs during the heat of the day. I would recommend staying aerobic (below Lactate Threshold) during almost all of your heat acclimatization training. Do quality sessions during the cooler morning or evening hours.

As the weeks go by gradually increase the time, but not intensity, that you are training in the heat. Be sure that your buildup is progressive. Remember that in Spring and Summer it's heating up so you'll be acclimatizing in two ways: increasing your tolerance to heat/sun exposure and to rising temperatures and humidity.

#### **Hydrate Early and Often**

Top off your fluid stores with 16 ounces of sports drink an hour before you head out. Not all at one time but with small drinks before. Then toss down six to 10 ounces of sports drink about every 20 minutes while training or racing. Note: *Dr. Timothy Noakes has done a tremendous amount of research on hydration and he cautions to, "NOT OVER DRINK!"* And remember: Sports drinks beat water because they contain glucose and sodium (sugar and salt), which increase your water-absorption rate, replace the electrolytes you lose in sweat, and taste good, encouraging you to drink. It is very difficult to advise on the exact ratios of electrolytes, glucose, sodium, and protein to mix into your water bottles because it is so individual. My best advice again is to train using different types and ratios to see what works best for you - the athlete.

Note: *When I was in Florida I saw athletes that were chronically dehydrated. Because of the weather they could train daily and were often about two quarts low on fluids all the time.*

### **Determine Your Losses**

Weigh yourself pre- and post-workout in each sport and be as specific as you can to the actual racing conditions to determine the exact amount of fluid you lose. There is a big difference between 80 degrees and 20 percent humidity and 80 degrees and 70 percent humidity. You need to know exactly how much fluid you are losing in each sport. Don't guess!

If, for example, you lose two pounds during a 90 minute bike, it means you sweat about 32 ounces of fluid (*remember to add in the fluid you drank during the ride*). For future planning you can try to replenish your fluids at a rate of slightly less than 32 ounces per 90 minutes of cycling. It is difficult on the run to replace the entire amount of fluid that you lose during exercising but you do need to replace about 75 percent of what you lose with small drinks. You want to avoid the sloshing and fullness associated with drinking too much. Your body just can't absorb the fluids as fast as you lose them.

I would also recommend you do the same after some of your longer swims. We do lose water while swimming.

### **Dress for Success**

Wear apparel that's light (white) in color, lightweight, and has vents or mesh. Microfibre polyesters, such as CoolMax and DuoFold, are good fabric choices. Keep the neck line loose and the shoulders covered. Cotton shirts are the worst choice. They hold water and are slow to evaporate. I prefer a visor so the head can breathe. A high percentage of heat is lost through your head so keep the heavy hats away and select a visor or hat that is well ventilated. You can put ice in a hat to help cool you off too. Also, be sure to wear sunscreen and sunglasses. Be careful though; applying too much sunscreen can actually cause you to heat up quicker by slowing the ability of the skin to cool itself. You only cool yourself when the sweat evaporates.

### **Be Smart**

Make speed adjustments during racing and training. Proactively adjust the pace when race day is warm. I'd suggest starting up to 30 seconds slower than your goal pace during the run. Then, if you are feeling good at the halfway point, gradually speed up. The loss of body water can bring the best triathletes to a slow crawl. I would also advise the same pacing strategy when the temperatures rise during your training runs and bike rides.

### **It's all about Recovery and Rehydration**

After the workout or race, rehydrate with a minimum of 16 to 24 ounces of sports drink for every pound of body weight you lose during exercise. Start this process as soon as your heart rate comes down or within the first 20 minutes. Don't forget to take in easily digestible foods like fruit, to replace your glucose and electrolyte stores.

### **Age Does Makes a Difference**

Young exercisers depending on their maturity rate often have not fully developed their sweat glands and internal cooling system. We see kids sweating on their face and head and assume they are cooling off, but not so. So take extra precautions with the young athletes. In older athletes we need to watch dehydration even more closely because the blood supply loses volume and creates a "thickening" of the blood making it more difficult for the heart to push. Watch the colour of your urine. The darker it is at any age the more you are dehydrated. In his book "Performing in Extreme Environments," Dr. Larry Armstrong has developed a urine colour chart that is one of the best charts I have seen.

( Download the chart at the USA triathlon website)

In the heat and humidity, train and race smart. Follow the suggestions above and remember there are no exact rules that cover all athletes in extreme conditions because we are so individualized with our needs and ability to cope. But make no mistake – **without fluids and taking steps to adjust to the heat and humidity, you will be going nowhere fast.**

Credit: *Alan Ley (USA Triathlon)*

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