

Training in High Humidity – Part Two by Coach Daren

As we discussed in the previous Coach's Corner article, your body uses evaporative cooling of sweat on the skin surface to cool blood directed to the skin. The cooled blood then returns to cool internal organs and muscles. Evaporation is almost non-existent in high humidity conditions as the air cannot absorb any more moisture, and the cooling process grinds to a halt despite the body pumping lots of sweat to the skin surface and dramatically increasing heart rate to pump more blood to the skin.

This process is a downward spiral as the athlete quickly becomes dehydrated, overheated, has a rising pulse, and performance is lowered. And, recovery time from a workout, especially from a run workout, takes longer than normal which may likely impact the next day's training.

Let's look at time of day and training location with a focus on minimizing humidity's affect on your training. "Hey Coach – it will be a hot one on Saturday so I'm going to run in early in the morning in Umstead State Park with lots of tree cover for shade." This sounds good, but let's look a bit more at the real story. Humidity will be higher in a wooded area from the dew on plants, and from the lack of breeze through the trees. The dew will burn-off more slowly than out in the open. Also, the soft running surface retains moisture from any recent rain, and then releases the moisture into the air above the surface as...you guessed it, more humidity. Consider the alternative of running in the open with a slight breeze without all the tree cover. OK, so you have to deal with clothing and sunscreen to protect from sun, but the sun may have less impact than the ambient temperature combined with higher humidity in the forest.

If you look at the hourly weather forecast on any internet site you will see that the humidity levels are highest early in the morning. The trick is to find the time of day with the lowest temps, the least solar heating, and the least impact from humidity. The two worst times for running are likely from 10:00 AM to noon, and again from 3:00 PM to maybe 7:00 PM. The morning time slot is when the higher humidity and solar heating combine to be nasty, and the later time slot, while the humidity is lowest for the day, likely has extremely high ambient temperatures and solar heating.

After many years of trying different combinations of locations and times I find that early morning, as soon after sunrise as is safe to run, is the best time for training in high temps and high humidity. And, running on paved surfaces in an open area minimizes the impact from humidity. The sun is not a significant impact at this time of day, and the overall temps are not too high.

Many athletes prefer to sleep in a bit on weekends and then run at 9 or 10 AM. By now the sun is climbing in the sky, the high humidity is still present, the air temperature is climbing fast, and these runners will likely head to the nice shady forest for their workout. And, they will spend the afternoon rehydrating, and unable to get off the couch because they feel like crud. And, they will wonder why their workout really stunk, and why it was so hard to run those last few miles. Oh, and they will also need new running shoes constantly because of the beating the shoes take from being in the washing machine every week to clean out the buckets of sweat that pour into them on the long runs.

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