

WHAT WE'RE READING...



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NOTE: Some sentiments contained within "What We're Reading" articles may not strictly conform with Simple Again's nutritional outlook. We read articles containing opposing information all the time and derive our nutritional philosophies from the latest science, the opinions of experts worldwide and our anecdotal experiences in the field. We keep an open mind and a strong affinity for fact-based evidence to help make the world of nutrition "Simple Again" for you.

Ask an Expert: What's the Secret to Training for Races in High Heat?

Here at Under Armour, our team is full of experts — across multiple sports — who want to make you the best athlete you can be. To that end, we're pumped to introduce a new series called "Ask an Expert."

In this premiere installment, we tapped Jeff Knight, our resident Clinical Exercise Physiologist, who knows his stuff when it comes to running and human performance. Outside the lab, Jeff coaches beginner to elite runners at Rogue Running in Austin. He's the man when it comes to this question:

I'm racing the Cumberland Plateau Stage Race in Tennessee on Aug. 26. I live in Utah, at an altitude of 7,000 feet with summertime highs around 75 degrees, so the race-day conditions couldn't be more different than what I'm accustomed to. How should I prepare to race in weather with 90-plus degree temperatures and high humidity?

— Steven Murphy, Park City, Utah



Jeff Knight: That's a great question! But really we have two questions. Since you live at altitude, you may also ask: "Do I need to do anything at all?"

For ages, running coaches have sworn by training at altitude for hot, humid races and vice versa. Likely fueled by that, there have been a number of recent studies exploring the carryover gains you experience from training in a hot, humid environment for a race set at altitude, and the studies suggest it works! Now, you're talking about the opposite scenario — training at altitude and racing in humidity.

While there aren't clear studies on this that I am aware of, the physiological response to training at altitude in theory would help you for a hot, humid race. Expanded blood volume, for example, would help with sweating and keeping your core temperature down, but I wouldn't rely on that. So back to your original question: How should you prepare for a race in heat and humidity?

The answer is: like everyone else.

Whether you live at 7,000 feet or 500 feet, racing in the heat calls for acclimation training. Fortunately, with two weeks to go, you have just enough time to get some acclimation training under your belt. The biggest boost in heat acclimation occurs in the first week of heat training. The following 1–2 weeks continue to yield improvements, just at a lower rate. With regards to how much to do, a 2015 consensus statement from top heat-exercise researchers recommended you spend about 60 minutes a day training in the heat. Thus, the last 14 days of training should incorporate about an hour of heat training per day if possible.

To do some heat acclimation, first consider if you have the opportunity to train in hot and humid conditions. For example, do you live somewhere that gets really hot in the afternoon? If you normally train in the morning, switch up your training, and do your runs in the afternoon. Similarly, if you own a treadmill, crank up the heat, or turn on some space heaters to make your treadmill environment as close to race-day conditions as possible.

But what if you don't have this option? There's been some research around training while wearing many layers to simulate hot conditions if you live in a cooler climate, but results are mixed, likely because sweating is different since the clothes get drenched in sweat and your skin becomes saturated with moisture. That said, if it's the only option you have, go for it. It's likely better than nothing.

Now for a few words of caution: Training in the heat means more sweating and higher carbohydrate burn. Make sure you are staying on top of your hydration and carb intake, especially if you're carbo-loading. Also, your heart rate is higher by 10 beats per minute or more when training in the heat, and you may be slower, so don't freak. With two weeks to go, you've done all the training you likely need, so if you run a little slower, it's going to be OK.

In the end, even though you live at altitude, I recommend you do something. Almost unequivocally, runners who prepare for a hot, humid race by training in hot, humid conditions perform better on race day than those who don't. So if you want an edge, get out into the heat.

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