

# Prevent muscle cramps with proper training, hydration

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Although fall is here, warm temperatures will be around a little longer, as well as outdoor activities for athletes young and old. Whether it is a weekend soccer tournament, football game, or 5K run, the threat of muscle cramping is a real issue for many athletes. However, is it really because of the heat and humidity? Or, is it dehydration? Research suggests it may be something else.



Ask any parent, athletic trainer, coach, or athlete and you will find a wide variety of remedies recommended to stop or prevent muscle cramps. Salt tabs, magnesium supplements, or eating bananas are common recommendations. Drinking pickle juice and eating mustard are a couple of the more interesting prescriptions to vanquish these debilitating contractions, but each is rooted in the idea we need more fluids and electrolytes like sodium or potassium. A 2004 study in the *British Journal of Sports Medicine* compared electrolyte and hydration levels of athletes after long distance running and found no differences in hydration and insignificant differences in electrolyte levels in their blood when comparing athletes who experienced cramping and those that did not.

So what is the cause? A 2011 study researching exercise-associated muscle cramping found athletes predicting improved performance or, in this case faster race times, were more likely to experience cramping. In other words, if you train at a lower intensity, and then expect to compete at a higher level, you risk spending your day limping around the field or having to watch others from the sidelines. As much as possible, training duration, frequency, intensity and exposure to extreme environmental conditions need to progress gradually to eventually match the demands of the upcoming competition.

This is not to suggest proper hydration is unimportant, or that sports drinks are not useful. Rather, it is only part of the bigger picture to avoid this warm weather problem. Whether you are training hard for a week of preseason two-a-days, or prepping for a fall marathon, your training intensity needs to progress gradually and match game day.

If cramping does occur, immediately stretch the affected muscle(s) and when the competition or event is done, continue to move the involved area frequently in a pain-free range of motion. It is likely you will experience soreness in the following day and light aerobic activity like an easy bike ride or swim is advisable to decrease soreness. If your discomfort last longer than 48 hours, or pain increases, consult your physician.

Schwellnus MP, Nicol J, Laubscher R, Noakes TD. *Serum electrolyte concentrations and hydration status are not associated with exercise associated muscle cramping (EAMC) in distance runners.* Br J Sports Med. 2004 Aug; 38(4):488-92

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