

EXERCISE INDUCED CRAMPS

PINDARA PHYSIOTHERAPY AND SPORTS MEDICINE



HOW TO PREVENT CRAMPS?

- Proper preparation. Both the half marathon and the full marathon are tough and without proper training you will fatigue more quickly.
- The second and often most overlooked aspect is proper pacing. We simply find most people who present for cramping issues have gone out way too hard early or have had unrealistic time goals.

WHAT ACTUALLY CAUSES CRAMPS?

Quite a deal of current research has looked at the causes of cramp. Dehydration, electrolyte imbalance, and salt loss have all been blamed but there is really no evidence for any of these. The current theory is simply muscle fatigue and its effect on the nerves that control the muscle.

Here's a brief explanation of this.....

Muscle contraction is controlled by a nerve called the alpha motor neuron, which is in turn controlled by the regions of your brain that dictate movement and by spinal reflexes. Basically, under fatigue your protective reflexes don't work properly. The response of the "over-stretching" (muscle spindle) reflex is to contract the muscle to protect itself, and the "overloading" (Golgi Tendon organ) reflex is to stop muscle contraction to protect itself. When the first begins contracting too much, and the second stops regulating contraction at all, you're going to get one hell of a cramp.

The muscles most likely to cramp are the ones that are active. Further, they are generally ones that cross two joints (like the calf, hamstrings and quadriceps)

because the two joints together shorten the muscle, exacerbating the issue of the contraction.

The takeaway here, however, is that fatigue seems simply to cause cramps, without regard for hydration or electrolyte imbalance or lack of salt or anything other than your muscle being tired.

WHAT CAN I DO ABOUT IT?

Give it some time to recover...and try some gentle lengthening and stretching to combat the altered reflex. It will settle and yes we recognize that it is painful.

New research has suggested that using "pickle juice" or Mustard can help reduce the time it takes for the cramp to dissipate. We suspect that the rapid inhibition of cramps reflects a neurally mediated reflex that originates in the mouth and throat region and acts to inhibit the firing of alpha motor neurons of the cramping muscle.



Be advised this information sheet is a guide only.

If you are experiencing any problems or have any questions, please feel free to contact your treating physiotherapist at Pindara Physiotherapy on 5539 4484

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