

## Ask the Seahorse, Charlene Kopansky



I need your advice. In one of my aqua fit classes, I have 2 participants (different classes) who are experiencing leg cramps. One participant in particular gets the leg cramp when she does the standing quadriceps stretch. She says that she never gets the cramp on land when she does the same stretch but she always gets a cramp (leg) in water. She has experienced this for the past few classes so now she does not do this particular stretch. Would you know why she is getting this cramp and how to avoid it? Thanks, Pavla (CALA Certified Leader)

There are several possible reasons for hamstring cramps during a quadriceps stretch. I will list some causes and cautions below, do let me know what works for your participants, after you suggest the following options.

Firstly, I am assuming you are doing the standing quad stretch, during the stretch portion at the end of the class.

(a) If the water temperature is on the 'cool' side (less than 84° F), thermal conductivity may cause the hamstring muscle to lose heat. As the quads are stretched, the hamstrings are activated. If the hamstrings are too cold, then there is a strong possibility that a cramp will result.

I suggest integrating dynamic stretching of the quad muscles, rather than a static standing stretch. This will keep the quad and the hamstring muscles warm and may avoid the cramping.

(b) If the participants have not generated enough heat in their skeletal muscles during the 'workout' phase of the class, then the hamstring muscles may not be warm enough, when the standing quad stretch is performed.

I re-iterate the strategy above (a) and also suggest that you consider educating the two participants (possibly before or after the class) about how to elevate their body temperature by exercising at a higher effort level. You can demonstrate options for them to make the workout harder to generate more kinetic energy resulting in more body heat. \* This is assuming the participants are healthy enough to exercise at an appropriate level of intensity to generate heat.

(c) Check to be sure that the participants are in a relaxed state of mind, body and spirit during the stretch. This can be facilitated by your tone and volume of voice, and the music you use. Remind them to deep breathe, and especially to relax their fingers and hands, toes and feet. From time to time, participants try to grip the floor with their toes and the bottom of their feet. This action might facilitate a chain of tension through the feet, the calves and then into the hamstring muscles.

(d) If your participants are having a hard time maintaining their balance during the standing quad stretch, this might cause the hamstring muscles to activate involuntarily. Encourage participants to hold on to the wall or use one hand/arm under water in a sculling action to maintain balance and to generate heat.

(e) Add a dynamic vertical repeater quad kick/ham curl movement for 16 – 32 repetitions to warm up the muscle pair, then to the standing quad stretch. Repeat on the other leg.