DYNAMIC HEALTH AND FITNESS, L.L.C.

MUSCLE CRAMPS

Have you ever found yourself lying in bed and suddenly your hamstrings cramp and seize up and send you flying off your mattress or your heading off for a walk and your calf muscle seize up and bring you to the ground? During these occurrences and shortly after you begin to ask yourself why did this happen, did I drink enough water or consume enough potassium. The answer lies in having a better understanding of what muscle cramps are and the common causes of these debilitating cramps.

WHAT ARE MUSCLE CRAMPS

A muscle cramp is an involuntary and forcibly contracted muscle that does not relax. Muscle cramping can occur in any skeletal muscle but are more prone in muscles that cross over two joints (calves, quadriceps, hamstrings, etc.). A muscle cramp can involve one muscle or several muscles in a concentrated area and can be due to electrolyte imbalances, dehydration or overexertion/repetitive movement tasks. The intensity of the cramp can be a slight twitch to extreme pain.

CAUSES

Cramps that happen in the presence of a higher heat/humidity index and during physical activity are most commonly associated with hydration and electrolyte imbalances (salt, potassium, magnesium and calcium). When these nutrients fall to certain levels, the incidence of muscle spasms increases.

Athletes are usually the group associated with the above causes. Athletes are more prone to cramping during the pre-season of their sport. The lack of conditioning and improper nutrient uptake can act as catalysts for cramping.

There are many incidences of muscle cramping that are not associated with heat, humidity or exercise. These incidences are usually caused by overexertion, muscular fatigue, and over-repetitive movement patterns (prolonged sitting, computer work, driving). Overexertion, fatigue and repetitive movements create an imbalance within the body. The imbalance leads to an increased demand on oxygen and nutrient uptake, which can lead to an increased buildup of waste products in the muscle. The waste products can cause the muscle to spasm.

Age also seems to play a factor as it relates to declines in muscle, resulting in the muscles not being able to function optimally. Therefore, actions that you performed in your earlier years may not be as well handled by the skeletal muscle system due to biological aging. Completing repetitive tasks during the day either during work or physical activity could cause eventual fatigue in the muscles being activated, which can lead to cramping as discussed previously.

PREVENTION OF MUSCLE CRAMPS

1. Hydation, Hydration Hydration. Dynamic Health & Fitness utilizes the guidelines of Dr. Batmanghelidj in suggesting that a person drinks half their bodyweight in ounces ofwater daily. Water intake can increase if activity is higher or temperatures have increased.

Exercise And Fluid Replacement Guidelines

- Drink 17-20oz. Approximately one hour before activity
- Drink 7-10oz. About every 15 minutes of exercise
- Drink 20oz. Of water per pound of weight loss within 2 hours of activity
- Fluid should be cold because they empty from stomach quicker

2. Eat a wide variety of nutrient rich foods. Fruits, vegetables and whole grains contain many vitamins and minerals that the body needs for normal functioning and to remain in homeostasis. Sodium is the most important electrolyte for heat associated cramps. A blend of sodium, potassium, calcium and magnesium are more important for non-heat induced cramps that happen during normal activities of daily living.

3. Follow a systematic integrated training approach that includes functional flexibility and strength as the cornerstones. A proper warm-up and cool down should be applied to your exercise or athletic events.

If muscle cramps continue to persist after incorporating the above strategies, it would be advised to consult your physician. Your physician can determine other factors such as medications that may play a role in cramping episodes.