

Muscle Cramp

If you - while swimming - have had the unpleasant if not terrifying experience of a paralysing MUSCLE CRAMP (also known as a “Charley Horse” in the swimmers world) - you might want to read this article which tells you all about Muscle cramps.

What is a muscle cramp?

A muscle cramp is an involuntarily and forcible muscle contraction that does not relax.

It lasts for a few seconds up to 15 min (occasionally longer).

The cramped muscle is (severely) painful and feels hard and bulged.

Cramp can happen to any body - at any time – and in any muscle- (group).

Why do muscle cramps happen?

The exact cause of “muscle cramp” is unknown (idiopathic) but the following are thought to be of influence:

- **Vigorous activity and muscle fatigue** (over-exercise leads to a decreased oxygen supply to the muscle which affects the muscles-metabolism resulting in higher levels of waste products which can alter neural activity which in turn can lead to cramp).
- **Stiff joints and muscles** are believed to increase the chance of muscle cramp e.g. a stiff ankle may lead the calf muscle to work hard (in its shortest position) to flex the foot for propulsion, with increased risk of cramp. And in the process nerves may become compressed and over-stretched which will make the nerve hyper excitable with increased risk of cramp.
- **Dehydration** (due to insufficient drinking and/or excessive sweating (heat) the body's; fluid – salt and mineral levels (Calcium, Magnesium Potassium) become depleted leading to cramp)
- A great variety of **Medication** can trigger cramp (such as diuretics (including; caffeine and alcohol), medication related to angina, high blood pressure and cholesterol, asthma, osteoporosis etc).
- Withdrawal from medications and substances that have sedative effects including alcohol, and anti-anxiety agents.
- **Vitamin deficiency** (e.g. B1, B5, B6 and D).
- **Poor blood circulation** to the legs leading to accumulation of lactic acid and other chemicals (particularly in calf muscle).
- **Injury** (as a protective mechanism e.g. following a broken bone or muscle tear).
- **Pregnancy** can lead to depleted Calcium- and Magnesium-levels, which can lead to cramp.

Who are prone to get a muscle cramp?

- Endurance athletes
- Older people who continue to engage on strenuous physical activities.
- Athletes tend to develop cramps at the start of their training season when the body is not conditioned and is, therefore, more prone to muscle fatigue. They may also develop cramps at the end of an intense or prolonged exercise session, or even the night after.

When to consider seeing your GP:

- If your muscles frequently cramp during and after exertion or at rest.
- If you have cramps that “lock” and don’t release for minutes at a time.
- If a cramp recurs several times in a single day.

It is not common that muscle cramps would result from a medical condition without some other obvious signs that a medical condition is present.

What can you do about muscle cramps?

Stop the activity that causes the cramp.

Stretch the cramped muscle gently (and if necessary prolonged).

A gentle massage will often help the muscle to relax.

What can you do to prevent muscle muscle cramps?

Keep on sipping water/sport-drinks etc. during your work out.

Stretch tight muscle and mobilise stiff joints.

Vitamin E has also been said to help minimize cramp occurrence.

The most common locations for muscle cramp:

1. **Calve muscle** (Gastrocnemius) (the classic “charley horse”) straighten the knee and lift/pull your toes/foot up towards your knee
2. **Small foot muscles** (bottom or top)
 - Cramp in the bottom of your foot à gently pull toes up.
 - Cramp in the top of your foot à gently claw your toes (don’t push the whole foot away/flex the ankle as that may cause cramp in the calve).
3. **Back of thigh** (Hamstrings) à pull your leg (straight knee) up towards your chest.
4. **Front of thigh** (Quadriceps) à bend your knee and pull your foot towards your buttock.