

# Leg Cramps

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Tuesday, 05 February 2008  
Last Updated Tuesday, 05 February 2008

## What is a muscle cramp?

A muscle cramp is a painful spasm of your muscle. It's caused by a prolonged tightening of that muscle, leading to it being shortened. The spasm can last from a few seconds to 15 minutes.

You do not have any control of this spasm and the muscle often feels hard and painful. Muscle cramps, especially in the legs, are very common. The small muscles of the feet are also sometimes affected. The muscle may remain tender for up to 24 hours after a leg cramp.

Cramp often occurs as a result of using your muscles a lot. It is common in athletes, especially long distance runners, and tennis and football players.

Cramp often happens after you have sweated a lot. Sweat is high in sodium and loss of sodium upsets the way your muscle works.

It can also occur with repetitive movements, such as writing (writer's cramp). It can also happen when you lie in an awkward position (night cramp). Night cramps may wake you from sleep.

You can relieve the pain of muscle cramp by stretching and gently massaging the muscle. Grasp your muscle with one hand and pull back on your toes with the other to point the toes upwards. This helps to relieve the spasm.

Regular calf stretching exercises will often prevent leg cramps and quinine tablets may help.

Drink plenty of fluid before, during and after exercising or playing sport, and make sure you warm up properly before you begin.

## What are leg cramps?

A leg cramp is a pain that comes from a muscle in the leg. It is due to a muscle spasm which is when a muscle contracts too hard. It usually occurs in one of the calf muscles, below and behind a knee. The small muscles of the feet are sometimes affected.

A cramp pain typically lasts a few minutes. In some cases it lasts just seconds, but in some cases it can last up to 10 minutes. The severity of the pain varies. The muscle may remain tender for up to 24 hours after a leg cramp. Leg cramps usually occur when you are resting - most commonly at night when in bed. (They are often called night cramps.) They may wake you from sleep. It can become a distressing condition if your sleep is regularly disturbed.

## Who gets leg cramps?

Many people have an occasional leg cramp. However, they occur frequently in some people. They are more common in older people. About 1 in 3 people over the age of 60, and about half of people over the age of 80 have regular leg cramps. About 4 in 10 people who have leg cramps have at least three per week. They occur every day in some cases.

## What causes leg cramp?

Unknown cause (idiopathic leg cramps)

In most cases the cause is not known. One theory is that cramps occur when a muscle that is already in a shortened position is stimulated to contract. As the muscle is already shortened, to contract further may cause the muscle to go

into spasm. This commonly happens at night in bed as the natural position we lie in is with the knees slightly bent (flexed), and with feet pointing slightly downwards. In this position the calf muscle is relatively shortened and prone to cramps. This theory explains why stretching exercises may cure the problem.

### Secondary causes

In some cases, the cramps may be a symptom of another condition or problem. For example:

- Some medicines can cause cramps as a side-effect, or make cramps occur more often. These include: diuretics ('water tablets'), nifedipine, cimetidine, salbutamol, terbutaline, lithium, clofibrate, penicillamine, morphine (withdrawal), phenothiazines, and nicotinic acid.
- Over-exertion of muscles.
- Dehydration.
- Conditions that cause alterations in the balance of salts in the bloodstream (such as a high or low sodium or potassium level).
- Some people who have renal (kidney) dialysis get leg cramps.
- Pregnancy - usually in the later stages.
- An untreated under-active thyroid gland.
- Peripheral vascular disease (narrowing of the leg arteries which causes poor circulation).
- Cirrhosis of the liver is a rare cause.
- Lead poisoning.
- Sarcoidosis.
- Rare disorders of nerves.
- Excess alcohol.

With the above conditions the cramps would just be one of various other symptoms. Therefore, if you are otherwise well, and have no other unexplained symptoms, then the leg cramps are likely to be idiopathic (unknown cause) and not due to a secondary cause.

Note: leg cramps are different to a condition called restless legs syndrome. In this condition the legs can be uncomfortable, you feel creeping sensations in the legs, and it is relieved by walking about.

### What is the treatment for a leg cramp?

Stretching and massaging the affected muscle (usually a calf muscle) can usually relieve an attack of cramp. Most cramps soon ease off. Painkillers are not usually helpful for a sudden attack of cramp. Taking Root Ginger or drinking lots of tonic water helps. Massaging the legs with specific oils often helps too.

### What are the options for preventing leg cramps?

If cramps do not occur often, then no particular treatment is usually needed. However, if you have frequent cramps, you may wish to consider ways of preventing them.

Consider your medication (where appropriate) or other conditions

Tell your doctor if you take any of the medicines listed above. It may be causing the leg cramps, or making them recur more often. Alternative medicines may be available.

### Stretching exercises

Stretching exercises are commonly advised. However, there is a lack of good research evidence to prove that it works. One research study concluded that stretching exercises did reduce the number and severity of cramps, but another study did not confirm this. So, as it may help, it is worth trying if you are able to do the exercises. If it works, you will not need any tablets to prevent the leg cramps.

At first, do stretching exercises of affected muscles for about five minutes, three times a day. Do the last exercise shortly before bedtime. If the cramps ease off, you may then only need to do the exercise once or twice a day to keep the cramps away.

To stretch calf muscles, stand about 60-90 cm from a wall. Then, keeping the soles of your feet flat on the floor, bend forward and lean on the wall. You will feel your calf muscles stretch. Do this several times, each time for as long as you can manage.