

Leg Cramps (Night Cramps)

Leg cramps are common. Some medicines and some medical conditions sometimes cause leg cramps. However, the cause is not known in most cases. Regular calf stretching exercises will often prevent leg cramps. Quinine tablets may be advised if you have leg cramps regularly.

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 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 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 cramps?

Unknown cause (idiopathic leg cramps)

In most cases the cause is not known. The 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 a 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 can 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. See separate leaflet called '*Restless Legs Syndrome*' for details.

What are the treatment options for leg cramps?

Consider your medication (where appropriate) or other conditions

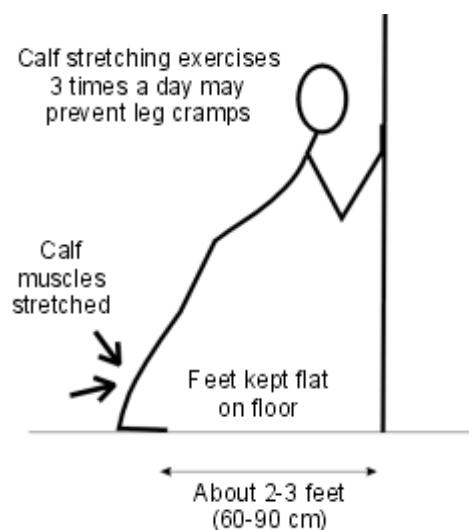
Tell your doctor if you take any of the medicines listed above. It may be causing the leg cramps, or making them recur more often. Alternative medicines may be available. Also, if you have other symptoms apart from cramps, see your doctor who may examine you or do some checks to rule out a secondary cause for the cramps.

Stretching exercises

Massage, walking, and stretching the affected muscle (usually the calf muscle) relieves a cramp attack. In addition, you may be able to **prevent** leg cramps by doing stretching exercises every day. If possible, you should try stretching exercises as the first treatment. If it works, you will not need any tablets to prevent the leg cramps.

If possible, do stretching exercises for about five minutes, three times a day, every day. Do the last exercise in the evening, shortly before bedtime.

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.



Posture of the legs when resting in bed

Positions which prevent the calf muscle from shortening when you are asleep may help. The following are not proven treatments (from research trials), but some experts believe that they help to prevent cramps.

- using a pillow to prop the feet up in bed while sleeping on your back.
- hanging the feet over the end of the bed while sleeping on your front.
- keeping blankets loose at the foot of the bed to prevent toes and feet from pointing downwards during sleep.

Quinine

Quinine tablets are the usual treatment if the above treatments are not possible, or do not help. One tablet at bedtime is the normal dose. Quinine often reduces the number of leg cramps, but may not stop them altogether. A four week course is commonly tried at first and can be continued if the number of leg cramps is reduced. It may be worth stopping the quinine tablets every three months or so to see if they are still needed.

Most people can take quinine, but do not take it if you are pregnant or may become pregnant. There are also some rare conditions where you should not take quinine. (These include: a previous reaction to quinine; a previous haemolytic anaemia; optic neuritis; glucose 6-phosphate dehydrogenase deficiency.) Side-effects are uncommon at the low dose used to treat leg cramps. Read the medicine packet leaflet for a full list of possible side-effects. Note: quinine is dangerous in overdose, particularly in children. Keep tablets away from children.

Other treatments

Other medicines have been suggested as possible treatments for leg cramps. These include: naftidrofuryl, vitamin E, verapamil, diltiazem, painkillers, aspirin, orphenadrine, magnesium, calcium, and sodium chloride. TENS machines have also been suggested as a possible treatment.

So far there is little research evidence to prove that these treatments work well. Your doctor may suggest trying one if all else fails.

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