SYMPTOM

Muscle cramps

A muscle cramp is a sudden, painful tightening of a muscle that you cannot control.

WHAT IT FEELS LIKE
A muscle suddenly tightening into a painful hard knot

WHERE IT IS FELT
Often the calf, foot, thigh, hand, or abdomen

MOST COMMON CAUSES
Muscle fatigue, prolonged positioning, fluid loss

WHEN IT IS URGENT
One leg suddenly swollen, red, warm, or very painful

USUALLY LASTS
A few seconds to several minutes

SEE A DOCTOR IF
Cramps are frequent, severe, sleep-disrupting, or linked with weakness

Overview

A muscle cramp is a sudden tightening of a muscle that you cannot control. The muscle may feel hard or knotted and can be painful. Most cramps settle within a few minutes, although the area may remain sore afterward.

Cramps often affect the calf or foot. They can happen during activity, after exercise, while resting, or during sleep. Night-time leg cramps are especially common in the calf.

An occasional short-lived cramp is usually not a sign of a serious problem. Repeated cramps can have several possible causes, including muscle fatigue, pregnancy, certain medicines, or conditions affecting nerves, blood flow, or body salts.

What it may feel or look like

A cramp may begin without warning. You may feel the muscle contract, shorten, or pull tightly. The affected area can look or feel like a firm lump under the skin.

The pain may be sharp enough to make you stop moving. A calf cramp may point the toes downward, while a hand cramp may pull the fingers into an awkward position. The muscle

usually relaxes after seconds or minutes.

Afterward, mild tenderness or aching can last for several hours. This is different from continuous muscle pain, joint pain, or a brief twitch that does not hurt.

Notice when the cramps happen, which muscles are involved, and whether you have swelling, numbness, weakness, or changes in skin colour. These details can help identify the cause.

Common causes

Many cramps have no single clear cause. Night-time leg cramps, in particular, are not always due to dehydration or low mineral levels.

Common triggers include:

Fluid and salt loss from heavy sweating, vomiting, or diarrhoea can contribute to cramping. Drinking too much plain water during prolonged intense exercise can also disturb the body's salt balance.

Less common causes include low levels of minerals such as sodium, calcium, or magnesium. These changes may result from illness, medicines, or problems involving the kidneys or digestive system.

Some medicines are associated with muscle symptoms or may alter fluid and mineral levels. Examples include water tablets like furosemide or hydrochlorothiazide , also called diuretics, and some medicines used for cholesterol or breathing conditions. Do not stop a prescribed medicine on your own.

Cramplike pain can also occur when nerves are compressed or when blood flow to a leg is reduced. Pain from reduced blood flow often starts while walking and improves with rest. Thyroid disorders, diabetes, kidney disease, and some nerve or muscle conditions can also be involved.

- Tiring or overusing a muscle during exercise or physical work
- Holding one position for a long time
- Exercising in hot conditions, especially with heavy sweating
- Tight calf muscles or an unfamiliar increase in activity
- Pregnancy, particularly cramps in the legs at night

When to seek medical care

Arrange a routine appointment if cramps are frequent, are becoming more painful, regularly disturb sleep, or do not improve with simple measures. You should also book an appointment if they began after starting or changing a medicine, or if you have ongoing numbness, muscle weakness, weight loss, or difficulty walking.

Seek same-day medical advice if one leg becomes newly swollen, warm, red or discoloured, and painful. These symptoms need assessment because they can occur with a blood clot or infection rather than an ordinary cramp.

Get emergency help if you have:

A cramp that lasts unusually long or repeatedly returns with severe vomiting, diarrhoea, or signs of dehydration also needs prompt medical advice.

- A painful swollen leg together with chest pain, faintness, or breathlessness
- Sudden severe limb pain with pale or bluish, cold, or numb skin
- Severe muscle pain or weakness with dark brown or cola-coloured urine
- Cramping during heat exposure with confusion, collapse, or very hot skin
- Sudden weakness on one side, facial drooping, or trouble speaking

How the cause is found

A healthcare professional will ask where and when the cramps happen, how long they last, and what makes them better or worse. They may ask about exercise, fluid loss, pregnancy, alcohol use, medical conditions, and medicines or supplements.

An examination may include checking muscle strength, reflexes, sensation, pulses, swelling, and skin changes. Often, no testing is needed for occasional typical cramps.

Blood tests may be appropriate when cramps are persistent or when other symptoms suggest a possible underlying cause. Tests may check mineral levels, kidney function, blood sugar, or thyroid function. Tests of nerves or blood flow are usually reserved for people with signs pointing to those problems.

Treatment and self-care

When a cramp starts, stop the activity safely and gently stretch the affected muscle. For a calf cramp, straighten the knee and slowly pull the toes toward the shin. Standing with the foot flat and leaning forward may also help if you can balance safely.

Gentle massage, walking, or warmth may help the muscle relax. If it remains sore, a wrapped cold pack can sometimes ease discomfort. Avoid forceful stretching, which may injure the muscle.

Regular calf stretching may help some people who have recurring night cramps. Increase exercise gradually, wear suitable footwear, and allow recovery after demanding activity.

Drink enough to replace fluid lost through heat, exercise, vomiting, or diarrhoea. Electrolyte drinks or supplements are not automatically needed for ordinary cramps. Ask a healthcare professional before using mineral supplements, especially if you have a medical condition or take other medicines.

Magnesium does not reliably prevent ordinary muscle cramps when there is no deficiency. Quinine should not be used routinely for leg cramps because it can cause serious side effects. If a medicine may be contributing, a prescriber can review it and discuss safer options.

What to expect

Most simple muscle cramps end within a few minutes and cause no lasting harm. Temporary soreness may remain, especially after a strong cramp.

Cramps caused by an activity or position may improve when the trigger is changed. During pregnancy, they often settle after the pregnancy ends. If a medicine or health condition is involved, improvement depends on addressing that cause.

Keep a brief record if cramps recur. Note the time, duration, affected muscle, recent activity, medicines, and any other symptoms. This can make a medical review more useful.

Common questions

Are muscle cramps always caused by dehydration?

No. Fluid loss can contribute, especially after heavy sweating, vomiting, or diarrhoea, but many cramps occur without dehydration. Night-time leg cramps often have no clear link to low fluid or mineral levels.

Is a muscle cramp the same as a blood clot?

No. A typical cramp tightens and then releases within minutes. A blood clot may cause continuing pain with new swelling, warmth, or colour change, usually in one leg. These symptoms need same-day assessment.

Should I take magnesium?

Magnesium may help when a confirmed deficiency is causing symptoms, but studies have not shown reliable benefit for most ordinary cramps. Supplements can cause side effects and interact with medicines, so discuss regular use with a healthcare professional.

Can stretching prevent night cramps?

Gentle calf and hamstring stretching before bed may help some people, although it does not work for everyone. Avoid bouncing or stretching to the point of pain.

Sources

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