

**DISEASES & CONDITIONS**

Muscle Cramps

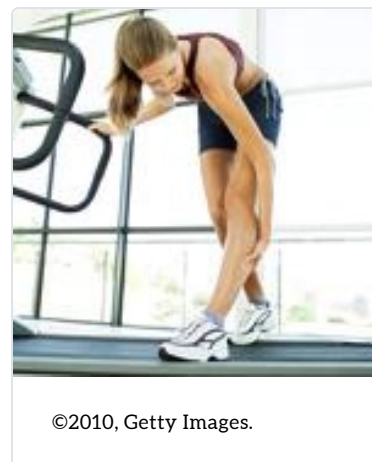
A muscle cramp is an involuntary contraction of a muscle that occurs suddenly and does not relax. If you have ever experienced a charley horse, you probably still remember the sudden, tight, and intense pain caused by a muscle locked in spasm.

Cramps can affect any muscle under your voluntary control (skeletal muscle). They can involve part or all of a muscle, or several muscles in a group.

The most commonly affected muscle groups are:

- Back of the lower leg/calf (gastrocnemius)
- Back of the thigh (hamstrings)
- Front of the thigh (quadriceps)

Cramps in the feet, hands, arms, abdomen, and along the rib cage are also very common.



Cause

Although the exact cause of muscle cramps is unknown (idiopathic), some researchers believe inadequate stretching and muscle fatigue lead to abnormalities in the mechanisms (bodily processes) that control muscle contraction.

Other factors may also be involved, including:

- Poor conditioning
- Exercising or working in intense heat
- Dehydration
- Depletion of salt and minerals (electrolytes)

Inadequate Stretching and Muscle Fatigue

Muscles are bundles of fibers that contract and expand to produce movement. A regular program of stretching lengthens muscle fibers so they can contract and tighten more vigorously when you exercise.

When your body is poorly conditioned, you are more likely to experience muscle fatigue, which can alter spinal neural reflex activity. Overexertion depletes a muscle's oxygen supply, leading to build-up of waste product and spasm. When a cramp begins, the spinal cord stimulates the muscle to keep contracting.

Heat, Dehydration, and Electrolyte Depletion

Muscle cramps are more likely when you exercise in hot weather because sweat drains your body's fluids, salt, and minerals (i.e., potassium, magnesium, and calcium). Loss of these nutrients may also cause a muscle to spasm.

Risk Factors

Some people are predisposed to muscle cramps and get them regularly with any physical exertion.

Those at greatest risk for cramps and other ailments related to excess heat include infants and young children, and people over age 65. Other factors that put people at greater risk for muscle cramp include:

- Being ill or overweight
- Overexerting during work or exercise
- Taking certain medications, such as pseudoephedrine (a decongestant) diuretics, and statins (used to treat high cholesterol)

Muscle cramps are very common among endurance athletes, such as marathon runners and triathletes, and older people who perform strenuous physical activities.

- Athletes are more likely to get cramps in the preseason when the body is not conditioned and therefore more subject to fatigue. Cramps often develop near the end of intense or prolonged exercise, or 4 to 6 hours later.
- Older people are more susceptible to muscle cramps due to normal muscle loss (atrophy) that begins in the mid-40s and accelerates with inactivity. As you age, your muscles cannot work as hard or as quickly as they used to. The body also loses some of its sense of thirst and its ability to sense and respond to changes in temperature.

Symptoms

- Muscle cramps range in intensity from a slight tic (twitching) to agonizing pain.
- A cramping muscle may feel hard to the touch and/or appear visibly distorted or twitch beneath the skin.
- A cramp can last a few seconds to 15 minutes or longer. It might recur multiple times before it goes away.

Home Remedies

Cramps usually go away on their own without seeing a doctor.

- Stop doing whatever activity triggered the cramp.
- Gently stretch and massage the cramping muscle, holding it in a stretched position until the cramp stops.
- Apply heat to tense/tight muscles, or cold to sore/tender muscles.
- Hydrate and replenish electrolytes as needed. Low-sugar sports drinks, lowfat cow's milk, or electrolyte-rich foods like yogurt, bananas, lentils, and spinach can help replace lost electrolytes.

Prevention

To avoid future cramps, work toward better overall fitness. Do regular flexibility exercises before and after you work out to stretch muscle groups most prone to cramping.

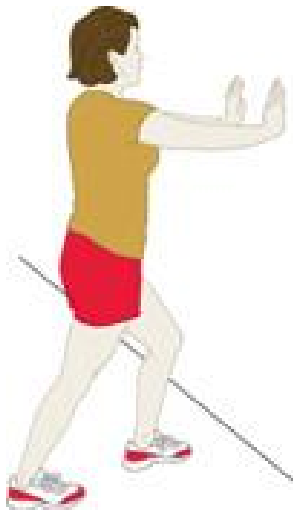
Warm Up

Always warm up before stretching. Good examples of warm-up activities are slowly running in place or walking briskly for a few minutes.

Calf Muscle Stretch

- Lean forward against a wall with one leg in front of the other.
- Straighten your back leg and press your heel into the floor. Your front knee is bent.
- Hold for 15 to 30 seconds.

Do: Keep both heels flat on the floor. Point the toes of your back foot toward the heel of your front foot.



Calf muscle stretch. You should feel this stretch in your calf and down toward your heel.

Hamstring Muscle Stretch

- Sit up tall with both legs extended straight in front of you. Your feet are neutral – not pointed or flexed.
- Place your palms on the floor and slide your hands toward your ankles.
- Hold for 30 seconds.

Do: Keep your chest open and back long. Reach from your hips. Stop sliding your palms forward when you feel the stretch.

Do not: Round your back or try to bring your nose to your knees. Do not lock your knees.



Hamstring muscle stretch. You should feel this stretch at the back of your thighs and behind your knees.

Quadriceps Muscle Stretch

- Hold onto a wall or the back of a chair for balance.
- Lift one foot and bring your heel up toward your buttocks.
- Grasp your ankle with your hand and pull your heel closer to your body.

- Hold the stretch for 30 seconds, then release.

Do: Keep your knees close together. Stop bringing your heel closer when you feel the stretch. *Never* stretch to the point of pain.

Do not: Arch or twist your back.



Quadriceps muscle stretch. You should feel this stretch in the front of your thigh.

When To See Your Doctor

Although the vast majority of muscle cramps are harmless, muscle cramps can sometimes be a sign of a more serious health condition, such as:

- Spinal nerve irritation or compression ([radiculopathy](#) [\(/en/diseases--conditions/cervical-radiculopathy-pinched-nerve/\)](#))
- Hardening of the arteries (atherosclerosis)
- Narrowing of the spinal canal ([spinal stenosis](#) [\(/en/diseases--conditions/lumbar-spinal-stenosis/\)](#))
- Thyroid disease
- Chronic [infection](#) [\(/en/diseases--conditions/infections/\)](#)
- Cirrhosis of the liver
- Lou Gehrig's disease (amyotrophic lateral sclerosis, or ALS), though this disease is rare)

See your doctor if your cramps:

- Are severe
- Happen frequently
- Respond poorly to the simple treatments mentioned above
- Are not related to obvious causes like strenuous exercise or dehydration

These issues could mean that you have problems with circulation, nerves, metabolism, hormones, medications, or nutrition.

Last Reviewed

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