

# What is a Muscle strain?

## MUSCLE STRAINS



Grade 1



Grade 2



Grade 3

# Muscle Strains

## What are muscle strains?

A muscle strain, or pulled muscle, occurs when your muscle is overstretched or torn. This usually occurs as a result of fatigue, overuse, or improper use of a muscle. Strains can happen in any muscle, but they're most common in your lower back, neck, shoulder, and hamstring, which is the muscle behind your thigh. These strains can cause pain and may limit movement within the affected muscle group. Mild to moderate strains can be successfully treated at home with ice, heat, and anti-inflammatory medications. Severe strains or tears may require medical treatment.

## Symptoms of muscle strains

You'll usually feel a muscle strain as it occurs. Symptoms include:

- sudden onset of pain
- soreness
- limited range of movement
- bruising or discoloration
- swelling
- a "knotted-up" feeling
- muscle spasms
- stiffness
- weakness

In a mild strain, a torn muscle may feel slightly stiff, but still flexible enough for use. A severe muscle strain is when the muscle is severely torn. This results in pain and very limited movement.

The symptoms of mild to moderate muscle strains usually go away within a few weeks. More severe strains may take months to heal.

## Causes of muscle strains

An acute muscle strain is when your muscle tears suddenly and unexpectedly. Such tears can occur either from injuries or trauma. This can be due to:

- not warming up properly before physical activity
- poor flexibility
- poor conditioning
- overexertion and fatigue

There's a misconception that only rigorous exercises and workouts of high intensity cause muscle strains. According to Johns Hopkins Medicine, muscle strains can even occur from walking.

An acute strain can happen when you:

- slip or lose your footing
- jump
- run
- throw something
- lift something heavy

lift something while in you're in an awkward position

Acute muscle strains are also more common in cold weather. This is because muscles are stiffer in lower temperatures. It's important to take extra time to warm up in these conditions to prevent strains.

Chronic muscle strains are the result of repetitive movement. This can be due to:

- sports like rowing, tennis, golf, or baseball
  - holding your back or neck in an awkward position for long periods of time, such as when you work at a desk
- poor posture

## **First aid for muscle strains**

Most muscle strains can be successfully treated at home. According to the Mayo Clinic, minor muscle strains can be treated with rest, ice, compression, and elevation (RICE).

### **Rest**

Avoid using your muscle for a few days, especially if movement causes an increase in pain. But too much rest can cause muscles to become weak. This can prolong the healing process. After two days, slowly begin using the affected muscle group, taking care not to overdo it.

### **Ice**

Apply ice immediately after injuring your muscle. This will minimize swelling. Don't put ice directly on your skin. Use an ice pack or wrap ice in a towel. Keep the ice on your muscle for about 20 minutes. Repeat every hour on the first day. For the next several days, apply ice every four hours.

### **Compression**

To reduce swelling, wrap the affected area with an elastic bandage until swelling comes down. Be careful not to wrap the area too tightly. Doing so can reduce your blood circulation

## **Elevation**

Whenever possible, keep the injured muscle raised above the level of your heart. Other self-care methods include the following:

**Use an over-the-counter anti-inflammatory medication**, such as ibuprofen (Advil). This will help keep pain and swelling down. Acetaminophen (Tylenol) can also help with pain.

- **After three days, apply heat to the muscle several times a day.** This will help bring blood circulation to the area for healing.
- **Don't rest your muscle for too long.** This can cause stiffness and weakness. Begin light stretching as soon as possible. Slowly increase your level of activity.
- **Make sure to stretch and warm up before exercising** when you return to normal activity. This will help increase blood flow to your muscles and decrease your risk of injury.

**Make an effort to stay in shape.** You're less likely to develop a strain if your muscles are strong and healthy.

If your muscle strain is severe, you may need medical attention. Physical therapy may also be recommended.

## **When to see a doctor**

For mild to moderate strains, home treatment should be enough. Seek medical attention if any of the following happens:

- The pain doesn't subside after a week.
- The injured area is numb.
- There's blood coming from your injury.
- You can't walk.

You can't move your arms or legs.

A physical examination and imaging tests, such as X-rays and MRI scans, can help your doctor determine the extent of your injury. Treatment may include anti-inflammatory medications and pain relievers to reduce pain and swelling. Your doctor may also prescribe physical therapy to help strengthen the muscle and restore movement.