

# ABDOMINAL MUSCLE STRAIN

## What is an abdominal muscle strain?

A strain is a stretch or tear of a muscle or tendon. People commonly call such an injury a “pulled” muscle. Your abdominal muscles may be strained during a forceful activity.

## How does it occur?

During a vigorous activity, such as lifting or even hard coughing or sneezing, these muscles may become strained.

## What are the symptoms?

You have pain over the abdominal muscles.

At times these muscles may be torn. A tear all the way through the muscles and the covering of the abdomen (called the fascia) may result in an abdominal wall hernia. In a hernia, some of the contents of the belly (intestines and connective tissue) protrude through the tear and cause a bulge in the abdominal wall.

## How is it diagnosed?

Your healthcare provider will examine your abdomen. He or she will ask you to do an exercise such as a sit-up or abdominal “crunch” to check your symptoms. If you have a hernia, your provider will be able to feel and see a bulge in your abdomen.

## How is it treated?

Right after you injure a muscle, you should put ice on the area for 20 to 30 minutes every 3 to 4 hours for 2 to 3 days or until the pain goes away. Your healthcare provider may prescribe an anti-inflammatory medicine (adults aged 65 years and older should not take non-steroidal anti-inflammatory medicine for more than 7 days without their healthcare provider’s approval). If you have an abdominal hernia you may need surgery to correct this problem.

## When can I return to my sport or activity?

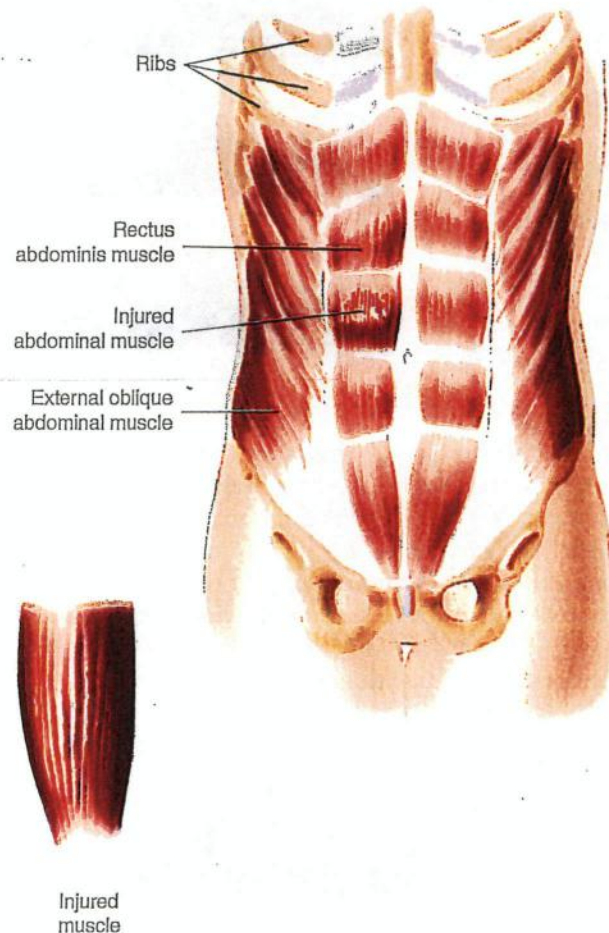
The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your activity will be determined by how soon your abdominal muscles recover, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

You may return to your activity when you can bend at the waist to touch your toes and straighten back up without pain. You should be able to do a sit-up or abdominal crunch without pain. If you have a hernia, be cautious about doing strenuous abdominal activities and talk to your healthcare provider about having it repaired.

## How can I prevent abdominal muscle strains?

Abdominal muscle strains are best prevented by having well toned abdominal muscles prior to vigorous activities. You can tone these muscles by doing sit-ups or abdominal crunches. You can also use an abdominal exercise machine. It is important not to overdo it when beginning your exercise program. When lifting heavy objects it is important to lift correctly, with knees bent and your back and abdomen straight.

## ABDOMINAL MUSCLE STRAIN



# ABDOMINAL MUSCLE STRAIN REHABILITATION EXERCISES

You may do the first 2 exercises right away. You may do the other exercises when the pain is gone.

**1. PELVIC TILT:** Lie on your back with your knees bent and your feet flat on the floor. Tighten your abdominal muscles and push your lower back into the floor. Hold this position for 5 seconds, then relax. Do 3 sets of 10.

As the pelvic tilt becomes easier, you can progress to an exercise called the dead bug.



**2. DEAD BUG EXERCISE:** Lie on your back with your knees bent, arms at your sides, and feet flat on the floor. Tighten your abdominal muscles and push your lower back into the floor. While keeping your abdominals tight, lift up one leg several inches off the floor, hold for 5 seconds, then lower it. Repeat this exercise with the opposite leg. Then lift your arm over your head, hold for 5 seconds, then lower it. Repeat with the opposite arm. Do 5 repetitions with each leg and arm. Once this exercise becomes easy, raise one leg and the opposite arm together. Hold for 5 seconds. Lower your arm and leg and raise the opposite arm and leg up and hold for 5 seconds. Do 3 sets of 5.



DEAD BUG EXERCISE

**3. PARTIAL CURL:** Lie on your back with your knees bent and your feet flat on the floor. Tighten your stomach muscles and flatten your back against the floor. Tuck your chin to your chest. With your hands stretched out in front of you, curl your upper body forward until your shoulders clear the floor. Hold this position for 3 seconds. Don't hold your breath. It helps to breathe out as you lift your shoulders up. Relax. Repeat 10 times. Build to 3 sets of 10. To challenge yourself, clasp your hands behind your head and keep your elbows out to the side.



PARTIAL CURL

After you have become good at the partial curl you can do a diagonal curl to help strengthen your oblique abdominal muscles.

**4. DIAGONAL CURL:** Lie on your back with your knees bent and your feet flat on the floor. Stretch your arms out in front of you or clasp your hands behind your neck to support your head. Tighten your stomach muscles and lift your head and shoulders off the floor while rotating your trunk toward the right. Make sure you don't use your arms to lift your body off the floor. Hold this for 3 seconds. Return to the starting position. Then rotate toward your left side. Do this 10 times on each side. Do 3 sets of 10.



DIAGONAL CURL

**5. LOWER ABDOMINAL EXERCISE:** Lie on your back with one knee bent at a 90 degree angle so your shin is horizontal. Your other foot should be just above the floor. Hold yourself in a pelvic tilt by tightening your abdominal muscles and pushing your lower back into the floor. Your knees should be pointed toward the ceiling. Slowly lower and straighten the top leg until the foot barely touches the floor and then bring it back up to the starting position. Do the same with your other leg. Remember to hold the pelvic tilt while you lower each leg. Do 3 sets of 10 on each side.



LOWER ABDOMINAL EXERCISE