

What Are Bursitis and Tendinitis?

Fast Facts: An Easy-to-Read Series of Publications for the Public

Bursitis and tendinitis are both common conditions that cause swelling around muscles and bones. They occur most often in the shoulder, elbow, wrist, hip, knee, or ankle.

A bursa is a small, fluid-filled sac that acts as a cushion between a bone and other moving body parts such as muscles, tendons, or skin. Bursae are found throughout the body. Bursitis occurs when a bursa becomes swollen.

A tendon is a flexible band of tissue that connects muscles to bones. Tendons can be small, like those found in the hand or ankle, or large, like the Achilles tendon in the heel. Tendons help create movement by making the muscles push or pull the bones in different ways. Tendinitis is the severe swelling of a tendon.

What Causes These Conditions?

People get bursitis by overusing a joint. It can also be caused by direct trauma. It usually occurs at the knee or elbow. Kneeling or leaning your elbows on a hard surface for a long time can make bursitis start. Tendinitis usually occurs after repeated injury to a certain area such as the wrist or ankle. Tendons become less flexible with age and become more prone to damage.

Doing the same kinds of movements every day or putting stress on joints increases the risk for both conditions. People like carpenters, gardeners, musicians, and athletes often get bursitis or tendinitis.

Infection, arthritis, gout, thyroid disease, and diabetes can also cause swelling of a bursa or tendon. Both bursitis and tendinitis are more frequent the older you get.

What Parts of the Body Are Affected?

Tendinitis causes pain and soreness around a joint. Some common forms of tendinitis are named after the sports that increase their risk. They include tennis elbow, golfer's elbow, pitcher's shoulder, swimmer's shoulder, and jumper's knee.

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Tennis Elbow and Golfer's Elbow

Tennis elbow is an injury to the tendon in the outer elbow. Golfer's elbow affects the inner tendon of the elbow. Any activity that involves a lot of wrist turning or hand gripping, such as using tools, shaking hands, or twisting, can bring on these conditions. Pain occurs near the elbow. It can also travel into the upper arm or forearm.

Shoulder Tendinitis, Bursitis, and Impingement Syndrome

Two types of tendinitis can affect the shoulder. Biceps tendinitis causes pain in the front or side of the shoulder. Pain may also travel down to the elbow and forearm. Raising your arm over your head may also be painful. The biceps muscle in the front of the upper arm helps secure the arm bone in the shoulder socket. It also helps control the speed of the arm during overhead movement. For example, you may feel pain when swinging a racquet or pitching a ball.

Rotator cuff tendinitis causes shoulder pain at the top of the shoulder and the upper arm. Reaching, pushing, pulling, or lifting the arm above shoulder level can make the pain worse.

Even lying on the painful side can worsen the problem. The rotator cuff is a group of muscles that attach the arm to the shoulder blade. This "cuff" allows the arm to lift and twist. Repeated motion of the arms can damage and wear down the tendons, muscles, and bone. Impingement syndrome is a squeezing of the rotator cuff.

Jobs that require frequent overhead reaching and sports involving lots of use of the shoulder may damage the rotator cuff or bursa. Rheumatoid arthritis also can inflame the rotator cuff and result in tendinitis and bursitis. Any of these can lead to severe swelling and impingement.

Knee Tendinitis or Jumper's Knee

If you overuse a tendon during activities such as dancing, bicycling, or running, it may become stretched, torn, and swollen. Trying to break a fall can also damage tendons around the kneecap. This type of injury often happens to older people whose tendons may be weaker and less flexible. Pain in the tendons around the knee is sometimes called jumper's knee. This is because it often happens to young people who play sports like basketball. The overuse of the muscles and force of hitting the ground after a jump can strain the tendon. After repeated stress from jumping, the tendon may swell or tear.

People with tendinitis of the knee may feel pain while running, jumping, or walking quickly. Knee tendinitis can increase the risk for large tears to the tendon.

Achilles Tendinitis

The Achilles tendon connects the calf muscle to the back of the heel. Achilles tendinitis is a common injury that makes the tendon swell, stretch, or tear. It's usually caused by overuse. It can also result from tight or weak calf muscles. Normal aging and arthritis can also stiffen the tendon.

Achilles tendon injuries can happen when climbing stairs or otherwise overworking the calf muscle. But these injuries are most common in "weekend warriors" who don't exercise regularly or don't take time to warm up before they do. Among athletes, most Achilles injuries seem to occur in sprinting or jumping sports. Athletes who play football, tennis, and basketball can all be affected by Achilles tendinitis. An injury almost always retires the athlete for the rest of the season.

Achilles tendinitis can be a long-term condition. It can also cause what appears to be a sudden injury. When a tendon is weakened by age or overuse, trauma can cause it to rupture. These injuries can be sudden and agonizing.

How Are These Conditions Diagnosed?

Diagnosis of tendinitis and bursitis begins with a medical history and physical exam. You will describe the pain and when and where the pain occurs. The doctor may ask you whether it gets better or worse during the day. Another important clue is what makes the pain go away or come back. There are other tests a doctor may use including:

- Selective tissue tension test to find out which tendon is affected
- Palpation or touching specific areas of the tendon to pinpoint the swelling
- X ray to rule out arthritis or bone problems
- MRI (magnetic resonance imaging), which can show damage to both bone and soft tissue
- Anesthetic injection test to see if the pain goes away
- Taking fluid from the swollen area to rule out infection.

What Kind of Health Care Professional Treats These Conditions?

Your regular doctor or a physical therapist can treat most cases of tendinitis and bursitis. Cases that don't respond to normal treatment may be referred to a specialist.

How Are Bursitis and Tendinitis Treated?

The focus of treatment is to heal the injured bursa or tendon. The first step is to reduce pain and swelling. This can be done with rest, tightly wrapping or elevating the affected area, or taking drugs that bring down the swelling. Aspirin, naproxen, and ibuprofen all serve that purpose. Ice may be helpful in recent, severe injuries, but is of little or no use in long-term cases. When ice is needed, an ice pack can be held on the affected area for 15 to 20 minutes every 4 to 6 hours for 3 to 5 days. A health care provider may suggest longer use of ice and a stretching program.

Your health care provider may also suggest limiting activities that involve the affected joint.

Support equipment may be suggested such as:

- An elbow band for tennis elbow
- A brace for the ankle or foot
- A splint for the knee or hand.

Other treatments may include:

- Ultrasound, which are gentle sound-wave vibrations that warm deep tissues and improve blood flow
- An electrical current that pushes a corticosteroid drug through the skin directly over the swollen bursa or tendon
- Gentle stretching and strengthening exercises
- Massage of the soft tissue.

If there is no improvement, your doctor may inject a drug into the area around the swollen bursa or tendon. If the joint still does not improve after 6 to 12 months, the doctor may perform surgery to repair damage and relieve pressure on the tendons and bursae.

If the bursitis is caused by an infection, the doctor will prescribe antibiotics.

If a tendon is completely torn, surgery may be needed to repair the damage.

Repairing a tendon tear requires an exercise program to restore the ability to bend and straighten the joint and to strengthen the muscles around it to prevent repeat injury. An exercise program may last 6 months.

Can Bursitis and Tendinitis Be Prevented?

To help prevent swelling or reduce the number of flares, you can do several things. The following list was adapted from MayoClinic.com.

- Warm up or stretch before exercise.
- Strengthen the muscles around the joint.
- Take frequent breaks from repetitive tasks.
- Cushion the affected joint with foam (knee pads, elbow pads).
- Increase the gripping surface on tools by using gloves, grip tape, or other padding.
- Use an oversized grip on golf clubs.
- Use a two-handed backhand in tennis.
- Use two hands to hold heavy tools.
- Don't sit still for long periods.
- Practice good posture.

- Position your body properly when doing daily tasks.
- Begin new activities or exercises slowly.
- If you have a history of tendinitis, consider talking to your doctor before starting a new exercise.

What Are Researchers Learning?

Researchers supported by the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) are studying bursitis and tendinitis in the following ways:

- The role of the immune system in the inflammation of tendinitis to create better strategies for prevention and treatment
- Worksite issues that affect the onset of tendinitis and other work-related musculoskeletal disorders.

For More Information About Bursitis and Tendinitis and Other Related Conditions:

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The information in this publication was summarized in easy-to-read format from information in a more detailed NIAMS booklet. To order the Bursitis and Tendinitis Q&A full-text version, please contact NIAMS using the contact information above. To view the complete text or to order online, visit <http://www.niams.nih.gov>.

For Your Information

This publication contains information about medications used to treat the health condition discussed here. When this publication was printed, we included the most up-to-date (accurate) information available. Occasionally, new information on medication is released.

For updates and for any questions about any medications you are taking, please contact the U.S. Food and Drug Administration at 888–INFO–FDA (888–463–6332, a toll-free call) or visit its Web site at www.fda.gov.