

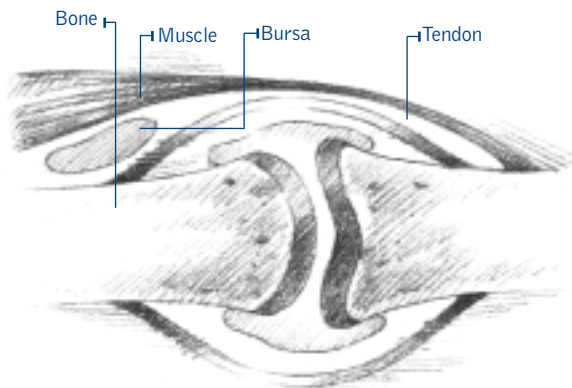


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# Bursitis, Tendinitis, and Other Soft Tissue Rheumatic Syndromes

## SOFT TISSUE RHEUMATIC SYNDROMES

Bursitis and tendinitis are two of the most common forms of soft tissue rheumatic syndromes. Soft tissue syndromes involve the structures around a joint, such as the tendons, ligaments and bursae (see illustration below). They are typically associated with pain, swelling, tenderness and inflammation. Soft tissue rheumatic syndromes may affect the areas around the shoulders, elbows, wrists, fingers, hips, back, knees, ankles and feet.



SOFT TISSUE RHEUMATIC SYNDROMES  
 AFFECT THE TISSUES AROUND THE JOINTS

There are many causes of soft tissue rheumatic syndromes. They often occur as a result of sports injuries or repetitive movements. Most of these conditions occur suddenly, may last for days, weeks or longer, and usually settle with rest or treatment. They can, however, occur again in the same place. When properly treated, most of these conditions do not result in permanent damage or disability.

Soft tissue rheumatic syndromes may also occur as a result of arthritis within a joint, such as in the knee or hip of a person with osteoarthritis or the elbow in a person with rheumatoid arthritis.

Pain is the main symptom of these conditions. Because the structures affected are located near the joint, moving the joint may be difficult and extremely painful. Some conditions may cause redness, warmth or swelling in the affected area. If fever, chills, persistent redness or swelling occur, see a doctor right away to make certain there isn't an infection.

The following sections explain some of the more common syndromes and some of the symptoms associated with each type.

## Bursitis

Bursitis is inflammation or irritation of a bursa, a small sac located between a bone and muscle, skin or tendon. The bursa allows smooth gliding between these structures. There are many bursae throughout the body, and bursitis can develop in any of these structures.

**Subacromial bursitis:** This bursa lies just above a group of muscles in the shoulder called the “rotator cuff.” Bursitis in this area is common and develops due to injury, impingement (pinching), overuse of the shoulder, arthritis or calcium deposits. Symptoms include pain in your upper (lateral) shoulder or upper third of your arm and severe pain upon moving your arm away from your body and above the shoulder.

**Trochanteric bursitis:** This bursa is located over the prominent bone on the side of your hip. Symptoms of trochanteric bursitis include pain gradually occurring over the side of your hip; pain when sleeping on the side affected by bursitis, rising from a deep chair, sitting in a car or climbing stairs; and pain when walking. It may develop in people with arthritis of the hip, knee or ankle as a result of abnormalities in walking caused by the arthritis. It also may develop in people with unequal leg lengths, usually in the longer leg.

**Ischial bursitis (weaver’s bottom, tailor’s seat):** The ischial bursa is located below the bone in your buttock called the ischium. Inflammation may occur as a result of injury or sitting on hard surfaces too long. Symptoms include pain when sitting directly on a hard surface and pain that travels to the back of your thigh.

**Olecranon bursitis:** Swelling of this small sac just below the elbow is caused by injury, gout, rheumatoid arthritis, infection or pro-

longed leaning on your elbows. Symptoms include painful swelling and redness at the tip of your elbow.

**Prepatellar bursitis (housemaid’s knee):** This bursa is located beneath the skin and in front of the kneecap. It may become inflamed as a result of infection, injury, gout or repeated irritation (kneeling). Symptoms include swelling in the front of your knee that may or may not be painful. Redness and/or warmth may occur with infection or gout.

Infrapatellar bursitis (clergyman’s knee) is a similar condition that affects the infrapatellar bursa, located just below the kneecap.

**Pes anserinus bursitis:** This bursa is located just below your knee on the inner part of your leg. It can be irritated in people who jog, have knock-knees or osteoarthritis of the knees, or in those who are overweight. Symptoms include pain on the inner part of your knee; pain while sleeping on your side if your legs touch each other; pain while climbing stairs; and pain that travels to the back and inside of your thigh.

**Retrocalcaneal bursitis (pump bump):** This bursa is located at the back of your heel. Bursitis in this area may occur as a result of the heel rubbing against the back of improperly fitted shoes but also occurs in runners as a result of repetitive activity. In addition, it may be associated with various forms of arthritis such as ankylosing spondylitis or rheumatoid arthritis. Symptoms include a painful swelling that develops at the back of your heel.

**Calcaneal bursitis:** This bursa is located at the bottom of your heel. Inflammation in the bursa usually produces pain in your heel when standing or walking. The causes include heel spurs, excess weight, previous injury and wearing improperly fitted shoes.

## Tendinitis

Tendinitis is inflammation or irritation of a tendon, which is a thick cord that attaches muscle to bone. Tendons act as pulleys to help muscles move a joint.

**Rotator cuff tendinitis and impingement syndrome:** Four muscles make up the rotator cuff. These muscles move the shoulder away from the side and turn it inward and outward. Rotator cuff tendinitis occurs when shoulder injury or overuse causes tendons to become irritated or inflamed.

Impingement occurs when the tendons are pinched between structures that are involved in shoulder motion. Symptoms include sudden, severe pain in your shoulder or upper third of your arm; gradual aching in your shoulder region; difficulty sleeping on your shoulder; or pain when raising the arm sideways from the body. This condition tends to be recurrent.

**Bicipital tendinitis:** The biceps tendon is located in the front of your shoulder and helps bend your elbow and turn your forearm. Overuse or injury may cause inflammation in the tendon. Symptoms include pain in the front of your shoulder that can travel down to your elbow and forearm.

**DeQuervain's (duh-KUR-vans) tendinitis:** This condition results from overuse of your thumb tendons, often caused by repeated pinching with your thumb. It can occur with activities such as writing, gardening or fine handiwork or in individuals in assembly work. It commonly occurs during and after pregnancy. Symptoms include pain over your wrist on the side of your thumb, especially with thumb motion.

**Achilles tendinitis:** This tendon attaches your calf muscle to your heel and helps lift your heel off the ground. Achilles tendinitis usually

occurs as a result of a sports injury or improperly fitting shoes. Symptoms include ankle stiffness and pain or swelling in the back of your ankle when pushing off the ball of your foot.

## Myofascial Pain

Myofascial pain occurs in areas of muscles, often in the back, neck and shoulders. It is associated with tender areas called trigger points. When the trigger points are pressed, you may feel pain that spreads away from the points. Myofascial back pain is a dull, aching pain in the lower back and buttocks. Causes include minor injury or strain to your back. This condition is commonly associated with osteoarthritis of the back. Symptoms include pain both at rest and with movement of the back. The pain may travel down your buttocks and into your thigh.

## Carpal Tunnel Syndrome

Carpal tunnel syndrome results from pressure on a nerve (the median nerve) at the wrist. This nerve supplies sensation to your thumb, the first two fingers and part of the ring finger in addition to providing strength to your thumb muscles. Causes of carpal tunnel syndrome include injury from repetitive use, thyroid disease, diabetes, pregnancy, infection, rheumatoid arthritis and other types of inflammatory arthritis.

Symptoms include numbness or tingling in the fingers, initially only at night or when your wrist is flexed for a long time; feelings of swelling in the hand; weakness of your thumb when using it for pinching; and unexplained hand pain.

A similar condition called tarsal tunnel syndrome can affect the nerve (tibial nerve) located

in the inner part of your ankle that supplies sensation to your toes and sole of your foot. Compression on the nerve at your ankle can occur with ankle fractures, rheumatoid arthritis or foot deformities. Symptoms include painful burning feelings in the foot, often at night or after standing; pain or burning on the sole of your foot or toes; and pain partially relieved by movement of your foot, ankle or leg.

### Tennis Elbow

The lateral epicondyle at the elbow is the bony prominence on the outer side, just above the elbow. This is the point where the posterior forearm muscles attach. Tennis elbow occurs with overuse of the forearm muscles in tennis and other sports, as well as in gardening or using tools that require clenching your hand for a long time. The bony point or the tendon just below it may become swollen and tender.

Symptoms include aching pain on the outside of your elbow that can travel down the back of your forearm, and pain with handshakes, movement of your fingers, lifting with your wrist, turning doorknobs or unscrewing jar tops.

Golfer's elbow (medial epicondylitis) is a condition similar to tennis elbow but involves the inside of the elbow. It is caused by overusing the anterior forearm muscles that clench your fingers. Symptoms include pain in the inner part of your elbow and pain when bending your fingers or wrists.

### Trigger Finger

Thickening of the lining around the tendons of your fingers can result in a condition called stenosing tenosynovitis or trigger finger. This generally occurs as result of overuse. Symptoms include locking of your finger in a painful bent position and then suddenly snapping open.

(You may need to use your other hand to straighten your finger.) You may feel tenderness, swelling or small bumps in the palm of your hand and aching in the middle joint of your affected finger.

### Plantar Fasciitis

The plantar fascia is made up of thickened fibrous tissue that spans the area from your heel to your toes on the soles of your feet. Running, prolonged standing, flat feet, heel spurs and excessive weight can stress the fascia. Symptoms include pain in the sole of your foot and pain when walking.

## CAUSES OF SOFT TISSUE SYNDROMES

Bursitis, tendinitis and other soft tissue syndromes typically result from one or more of these factors:

- Play or work activities that cause overuse or injury to the joint areas
- Incorrect posture or walking habits
- Stress on the soft tissues from an abnormal or poorly positioned joint or bone (such as leg length differences or deformities of a joint)
- Arthritis associated with inflammation or loss of cartilage or bone in a joint

## DIAGNOSIS OF SOFT TISSUE SYNDROMES

Your doctor can make a diagnosis based on a physical exam and your medical history. Your doctor will want to know when you first felt pain, how intense it was, where it was located and if you are doing any new physical activities.

## TREATMENT

Soft tissue syndromes like tendinitis and bursitis are very common in people who are otherwise healthy. Many of the syndromes go away

on their own over time. In most cases, a primary care physician can treat soft tissue rheumatic conditions. Some people may need to be referred to a rheumatologist, an orthopaedic surgeon or a physical therapist for treatment.

Treatment focuses on reducing pain and inflammation, as well as on preserving mobility and preventing disability and recurrence.

The treatment for many soft tissue conditions is similar but may be modified for each particular condition. Your doctor's recommendations may include a combination of rest, splints, heat and cold application, medications, physical therapy or occupational therapy. You may try several treatments before you find the best one for your condition. The following sections describe treatment options your doctor may prescribe.

### Rest and Splints

Many soft tissue conditions are caused by overuse, so the first treatment may include resting the painful area or avoiding a particular activity for a while. Rest allows the injured or inflamed area to heal.

Splints, braces or slings allow a particular area to rest until the pain eases. Splints are often used to help treat tennis and golfers elbow, DeQuervain's tendinitis, Achilles tendinitis and carpal tunnel syndrome. The devices should not be used indefinitely because they can eventually lead to decreased movement and strength. Ask your doctor how long and how often you should wear such devices.

### Cold

Cold compresses can help reduce the initial swelling and pain in acute (short-term but severe) conditions. Cold therapy is usually most effective during the first 48 hours after an

injury or overuse or after swelling begins. Some guidelines include:

- Use a cold gel pack, a bag filled with ice cubes, or even a bag of frozen vegetables.
- Wrap the pack in a towel if the cold pack is too painful.
- Place the ice pack over the area for 20 minutes, three to four times a day.
- Rub an ice cube over smaller painful areas for five to 10 minutes.

### Heat

After 48 hours, or for chronic (long-term) pain, dry or moist heat may be more helpful than cold compresses. Follow these guidelines:

- Use a hot pack, a heating pad (preferably with a timer switch), or a damp towel heated in the microwave (make sure it is not too hot or it may burn your skin).
- Place a hot pack over the painful area for 15 to 20 minutes, three to four times a day.
- Never use analgesic creams or rubs with heat packs because the combination could severely burn your skin.
- Take a warm shower or bath.

### Medication

Your doctor may prescribe medication or may suggest that you try over-the-counter drugs to help relieve pain and/or inflammation. Following are some medications commonly used to treat soft tissue syndromes.

Nonsteroidal anti-inflammatory drugs (NSAIDs) reduce inflammation and pain. There are many different NSAIDs, including aspirin, ibuprofen, naproxen and ketoprofen. These drugs are available by prescription and over-the-counter. COX-2 inhibitors, such as celecoxib



(Celebrex), rofecoxib (Vioxx) and valdecoxib (Bextra) are a newer subcategory of NSAIDs that may be safer for the stomach. COX-2 inhibitors are available by prescription only.

Your doctor will determine which drug is appropriate for your condition based on factors such as your age, other medical problems, daily habits, other medications you're taking, side effects you've experienced from taking NSAIDs and cost of the drug. You may need to try several NSAIDs before you find the one that works best for you.

Side effects of NSAIDs can include heartburn, nausea, diarrhea, easy bruising or bleeding, and dizziness. More severe side effects include ulcers, decreased kidney function and liver inflammation. Call your doctor if you notice any of the following serious warning signs while you are taking NSAIDs: stomach pain or cramps; pain that decreases after eating or after taking antacids; bloody or black, tarry stools; vomiting blood.

Most people do not need to stay on these drugs for a long period of time because the condition being treated usually lasts only a few weeks.

Corticosteroids (also called glucocorticoids) are synthetic forms of cortisol, which is a hormone naturally found in your body. These medications effectively reduce inflammation. Some soft tissue rheumatic syndromes can be treated with injections of corticosteroids into the affected area to reduce inflammation and pain. These injections are typically used if NSAIDs or other therapies don't bring relief after three to four weeks of treatment. (Pill forms of corticosteroids are not used for soft tissue conditions.) Within several days to a week symptoms often improve or disappear.

Risks of corticosteroid injections may include bleeding, infection, tendon rupture or skin atrophy. Frequent injections into the same area are not recommended.

### Physical Therapy

Your doctor may refer you to a physical therapist who can provide the following:

- heat/cold treatments, including ultrasound (sound waves) therapy and water therapy;
- massage;
- orthotics or pressure-relieving devices for your arms and legs;
- a personalized exercise program; or
- analysis of you posture and walking

### Occupational Therapy

Occupational therapists can identify modifications for daily activities and work habits to prevent re-injury. These therapists can also create hand and wrist splints, and they can suggest assistive devices to help make daily activities easier.

An ergonomic assessment may be necessary to reduce poor or stressful postures or positioning in some work situations.

### Surgery

Surgery is rarely needed to treat most of these conditions. However, you may need surgery if problems persist and other treatment methods do not ease your symptoms.

### PREVENTION

Because many soft tissue conditions are caused by overuse, the best treatment is prevention. It is important to avoid or modify the activities that cause the problem. Underlying conditions, such as leg length differences,

improper posture or poor technique in sports or work, must be corrected.

Be aware of potential overuse or injury in your daily activities, and change your lifestyle to prevent problems. Otherwise, problems may persist or occur repeatedly. Following are some ways you can avoid future problems.

### To Protect Your Shoulders

- Avoid activities that require you to reach overhead for long periods.
- Don't move your shoulder repeatedly for a long period of time (such as when vacuuming, painting or doing pushups).
- Do range-of-motion exercises to maintain strength and flexibility.
- Use good posture.

### To Protect Your Elbows

- Don't grip tools or pens too tightly.
- Don't clench your fists.
- Avoid repeated hand and finger motions.
- Don't lean on your elbows, and avoid bumping them.
- Use a forearm band (tennis elbow strap) during physical activity of the arm.

### To Protect Your Wrists and Hands

- Avoid repeating the same hand movements for long periods.
- Use your forearm or entire arm instead of just your wrist or hand.
- Take frequent breaks from doing fine handiwork, typing or writing.
- Enlarge handles on tools, utensils, pencils and pens with tape or foam so your grip won't be too tight.
- Carry objects with your palms open and flat.
- Wear a splint during prolonged activity.

### To Protect Your Knees

- Use kneepads when gardening or kneeling on floors.
- Do daily thigh strengthening exercises, since strong thigh muscles (quadriceps) provide added support for your knees.
- Don't sit for long periods of time. Get up and walk around every 20 to 30 minutes.
- Do proper warm-up exercises before exercising vigorously or playing sports.
- Turn your entire body rather than simply twisting at the waist.
- Limit stair climbing when possible.

### To Protect Your Hips

- When picking up objects, bend your knees instead of your back or hips.
- Sit on cushioned chairs.
- Get a shoe lift if there is a difference in the lengths of your legs.

### To Protect Your Ankles and Feet

- Wear walking or jogging shoes that provide good support. High-top shoes provide support for people with ankle problems.
- Wear comfortable shoes that fit properly.
- Wear heel cups or other shoe inserts as recommended by your doctor.
- Exercise on level, graded surfaces.

## THE ARTHRITIS FOUNDATION

The mission of the Arthritis Foundation is to improve lives through leadership in the prevention, control and cure of arthritis and related diseases.

The Arthritis Foundation supports research with the greatest potential for advances and has invested more than \$320 million in these efforts since its inception in 1948. Additionally,

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As your partner in taking greater control of arthritis, the Arthritis Foundation also offers a large number of programs and services nationwide to make life with arthritis easier and less painful and to help you become an active partner in your own health care.

Contact us at (800) 283-7800 or visit us on the Web at [www.arthritis.org](http://www.arthritis.org) to become an Arthritis Advocate or to find out how you can become involved.

The Arthritis Foundation acknowledges with appreciation Joseph Biundo, MD, LSU Medical Center, New Orleans; Juan Canoso, MD, Lomas de Chapultepec, Mexico City, Mexico; and Doreen Stiskal, PT, PhD, Seton Hall University, South Orange, N.J., for their assistance with this booklet.

**For more information:** The Arthritis Foundation offers a wide variety of books, brochures and videos about different forms of arthritis, treatment and self-management techniques to help you take control of your arthritis. To order any of these products, become an Arthritis Foundation member or to subscribe to the Arthritis Foundation's award-winning consumer health magazine, *Arthritis Today*, call (800) 283-7800. Call or visit our Web site ([www.arthritis.org](http://www.arthritis.org)) to find out how you can take control of your arthritis and start living better today!

#### MISSION STATEMENT:

The mission of the Arthritis Foundation is to improve lives through leadership in the prevention, control and cure of arthritis and related diseases.

This brochure has been reviewed by the  
AMERICAN COLLEGE OF RHEUMATOLOGY.



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