



## **My Drift**

**Title: Shoulder Pain**

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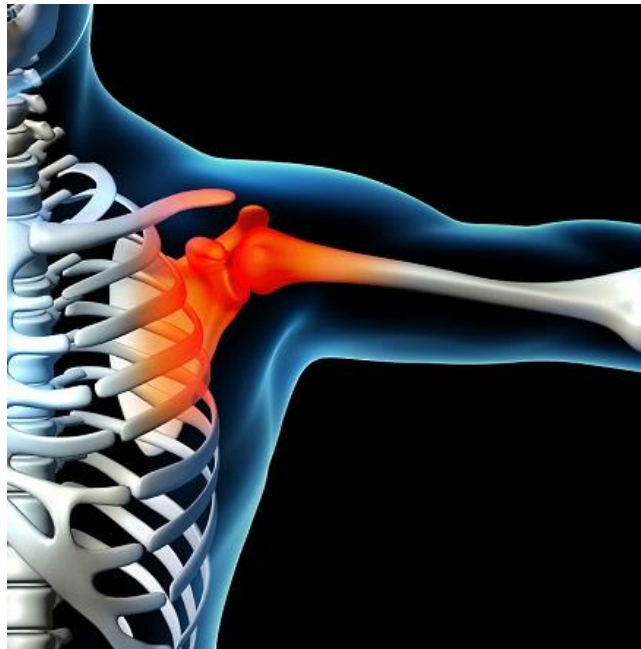
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**Okay, I must be getting old since I have started experiencing a few aches and pains including some pain in both shoulders. A friend said I must have arthritis in my shoulder joints. Well, I'm 81 and have never had arthritis so I'm hoping it is something else. So, before I talk to my doctor about it, I plan to learn a few things about shoulder pain, the possible causes, and treatment options.**

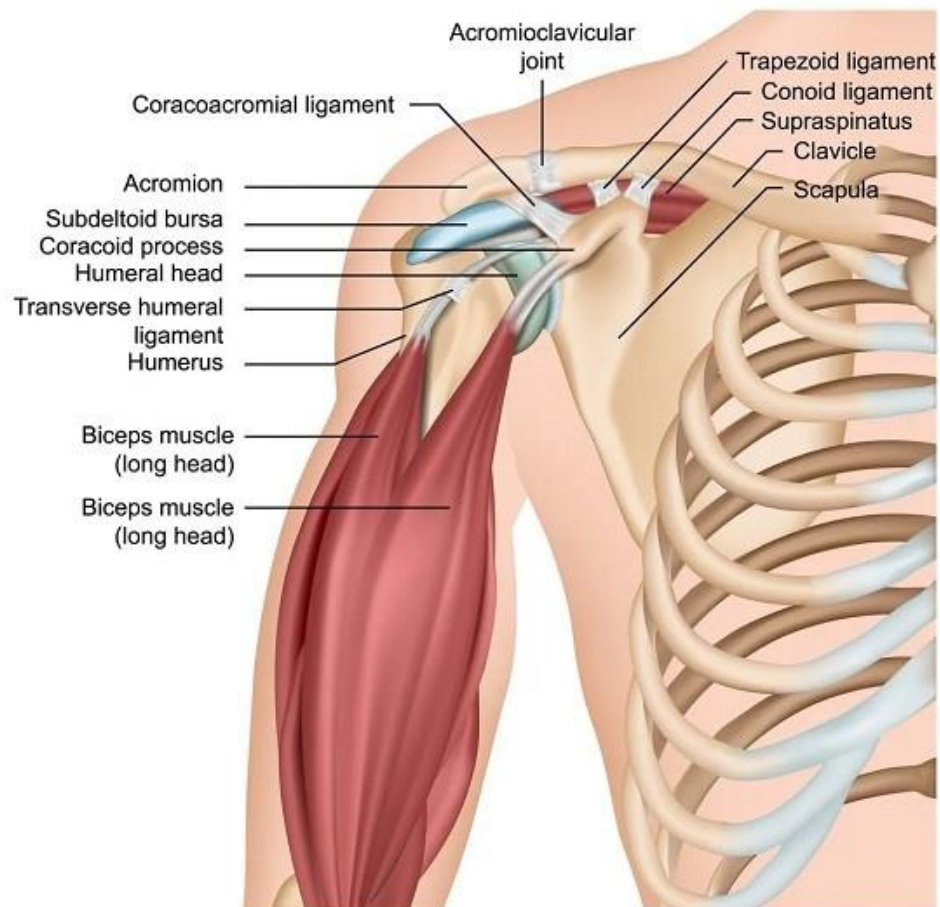


**The shoulder is a very flexible joint that is made up of several tendons, ligaments, and muscles that all work together. Pain can result from injuries, general wear and tear, and a number of inflammatory conditions.**



**Simple picture of the shoulder bones and joints (above)**

**More detailed picture showing the shoulder parts including joints, bones, ligaments, and muscles (below)**



I had no idea that the shoulder was so complex and made up of so many things. Let's learn a little about each of these parts starting with the Scapula on the right of the above picture and going around counterclockwise.

**Scapula** - The scapula (or shoulder blade) is a large triangular-shaped bone that lies in the upper back. The bone is surrounded and supported by a complex system of muscles that work together to help you move your arm.

**Clavicle** – The clavicle (or collarbone) is the bone that runs horizontally between the top of your breastbone (sternum) and shoulder blade (scapula). You can feel your collarbone by touching the area between your neck and your shoulder.

**Supraspinatus** – The supraspinatus is the most superior of the four rotator cuff muscles. It is a small triangular-shaped muscle, located on the posterior aspect of the scapula. It originates from the medial aspect of the supraspinous fossa, a concave depression located above the spine of the scapula.

**Conoid ligament** - The conoid ligament takes the shape of an inverted cone. It is the posteromedial part of the coracoclavicular ligament. Its apex originates from the knuckle of the coracoid process on the scapula. It has a wide attachment around the conoid tubercle on the inferior surface of the clavicle.

**Trapezoid ligament** - The trapezoid ligament is broad, thin, and quadrilateral. It is located obliquely between the coracoid process and the clavicle. The conoid ligament limits anterior movement of the scapula with respect to the clavicle. The trapezoid limits posterior movement between these two bones. Both ligaments prevent the clavicle from overriding the lateral end of the clavicle.

**Acromioclavicular Joint** - The Acromioclavicular Joint, or AC Joint, is one of four joints that comprises the Shoulder complex. The AC Joint is formed by the junction of the lateral clavicle and the acromion process of the scapula and is a gliding, or plane style synovial joint. The AC Joint attaches the scapula to the clavicle and serves as the main articulation that suspends the upper extremity from the trunk.

**Coracoacromial ligament** - The impingement coracoacromial ligament is a strong triangular ligament between the coracoid process and the acromion. It protects the head of the humerus.

**Acromion** - The acromion is the bony tip of the outer edge of your shoulder blade (scapula) that comes off the top of the back side of this bone. It meets with the end of your collar bone (clavicle) at your shoulder.

**Subdeltoid bursa** - The subdeltoid bursa is a fluid-filled sac located under the deltoid muscle in the shoulder joint. It plays an important role in decreasing friction in the shoulder joint and protects the surrounding tissues of the joint.

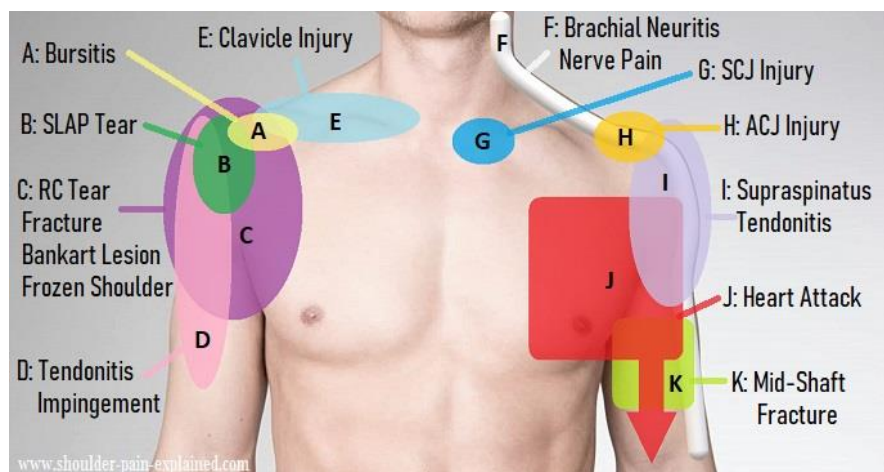
**Coracoid process** - The coracoid process is an osseous structure that arises from the superior border of the head of the scapula, projecting forward and curving laterally. The coracoid process is located directly below the lateral fourth of the clavicle and connected to its undersurface by the coracoclavicular ligament.

**Humeral head** - The shoulder is a ball-and-socket joint. The ball is the humeral head that is at the end of the humerus or arm bone. The socket is part of the shoulder blade and is flat.

**Transverse humeral ligament** - Transverse Humeral Ligament (THL) holds the tendon of the long head of biceps brachii muscle in the groove between the greater and lesser tubercle on the humerus.

**Humerus** - The humerus is the arm bone between your shoulder and your elbow.

**Biceps muscle** - The biceps muscle is in the front of your upper arm. It has two tendons that attach it to the shoulder blade bone. The long head attaches to the top of the shoulder socket (glenoid). The short head attaches to a bump on the shoulder blade called the coracoid process.



**Shoulder Pain Causes**

### **Shoulder pain causes include:**

**Avascular necrosis** – Avascular necrosis is the death of bone tissue due to a lack of blood supply. Also called osteonecrosis, it can lead to tiny breaks in the bone and the bone's eventual collapse. A broken bone or dislocated joint can interrupt the blood flow to a section of bone. Avascular necrosis is also associated with long-term use of high-dose steroid medications and excessive alcohol intake.

**Brachial plexus injury** - The brachial plexus is the network of nerves that sends signals from your spinal cord to your shoulder, arm, and hand. A brachial plexus injury occurs when these nerves are stretched, compressed, or in the most serious cases, ripped apart or torn away from the spinal cord. Minor brachial plexus injuries, known as stingers or burners, are common in contact sports, such as football.

**Broken collarbone** - A broken collarbone is a common injury, particularly in children and young adults. Your collarbone connects the upper part of your breastbone to your shoulder blade. Common causes of a broken collarbone include falls, sports injuries, and trauma from traffic accidents.

**Bursitis** - Bursitis is a painful condition that affects the small, fluid-filled sacs that cushion the bones, tendons, and muscles near your joints. Bursitis occurs when these sacs become inflamed. The most common locations for bursitis are in the shoulder, elbow, and hip. But you can also have bursitis by your knee, heel, and the base of your big toe. Bursitis often occurs near joints that perform frequent repetitive motion.

**Cervical radiculopathy** - Cervical radiculopathy, commonly called a "pinched nerve," occurs when a nerve in the neck is compressed or irritated where it branches away from the spinal cord. This may cause pain that radiates into the shoulder and/or arm, as well as muscle weakness and numbness.

**Dislocated shoulder** - A dislocated shoulder is an injury in which your upper arm bone pops out of the cup-shaped socket that's part of your shoulder blade. The shoulder is the body's most mobile joint, which makes it susceptible to dislocation. If you suspect a dislocated shoulder, seek prompt medical attention. Most people regain full shoulder function within a few weeks. However, once you've had a dislocated shoulder, your joint may become unstable and be prone to repeat dislocations.



**Frozen shoulder** - Frozen shoulder, also known as adhesive capsulitis, is a condition characterized by stiffness and pain in your shoulder joint. Signs and symptoms typically begin gradually, worsen over time, and then resolve, usually within one to three years. Your risk of developing frozen shoulder increases if you're recovering from a medical condition or procedure that prevents you from moving your arm — such as a stroke.

**Heart attack** - Sudden left shoulder pain can sometimes be a sign of a heart attack. Call 911 or your local emergency number if you have sudden pressure or crushing pain in your shoulder, especially if the pain runs from your chest to the left jaw, arm, or neck, or occurs with shortness of breath, dizziness, or sweating.

**Impingement syndrome** - Shoulder impingement syndrome is the result of a vicious cycle of rubbing of the rotator cuff between your humerus and top outer edge of your shoulder. The rubbing leads to more swelling and further narrowing of the space, which result in pain and irritation. Treatments include rest, ice, anti-inflammatory medications, physical therapy, cortisone injections and surgery.

**Osteoarthritis** - Osteoarthritis is the most common form of arthritis, affecting millions of people worldwide. It occurs when the protective cartilage that cushions the ends of the bones wears down over time. Although osteoarthritis can damage any joint, the disorder most commonly affects joints in your hands, knees, hips, shoulder, and spine. Osteoarthritis symptoms can usually be managed, although the damage to joints can't be reversed.

**Polymyalgia rheumatica** - Polymyalgia rheumatica is an inflammatory disorder that causes muscle pain and stiffness, especially in the shoulders and hips. Signs and symptoms of polymyalgia rheumatica usually begin quickly and are worse in the morning. Most people who develop polymyalgia rheumatica are older than 65.

**Rheumatoid arthritis** - Rheumatoid arthritis is a chronic inflammatory disorder that can affect more than just your joints. In some people, the condition can damage a wide variety of body systems, including the skin, eyes, lungs, heart, and blood vessels. An autoimmune disorder, rheumatoid arthritis occurs when your immune system mistakenly attacks your own body's tissues.

**Rotator cuff injury** - The rotator cuff is a group of muscles and tendons that surround the shoulder joint, keeping the head of your upper arm bone firmly within the shallow socket of the shoulder. A rotator cuff injury can cause a dull ache in the shoulder, which often worsens with use of the arm away from the body. Rotator cuff injuries are common and increase with age especially in people who have jobs that require repeatedly performing overhead motions.

**Septic arthritis** - Septic arthritis is a painful infection in a joint that can come from germs that travel through your bloodstream from another part of your body. Septic arthritis can also occur when a penetrating injury, such as an animal bite or trauma, delivers germs directly into the joint. Infants and older adults are most likely to develop septic arthritis. People who have artificial joints are also at risk of septic arthritis. Knees are most commonly affected, but septic arthritis also can affect hips, shoulders and other joints.

**Shoulder sprain** - A sprain is a stretching or tearing of ligaments — the tough bands of fibrous tissue that connects two bones together in your joints. The most common location for a sprain is in your ankle but can happen in your knees or shoulders. Severe sprains sometimes require surgery to repair torn ligaments.

*The difference between a sprain and a strain is that a sprain injures the bands of tissue that connect two bones together, while a strain involves an injury to a muscle or to the band of tissue that attaches a muscle to a bone.*

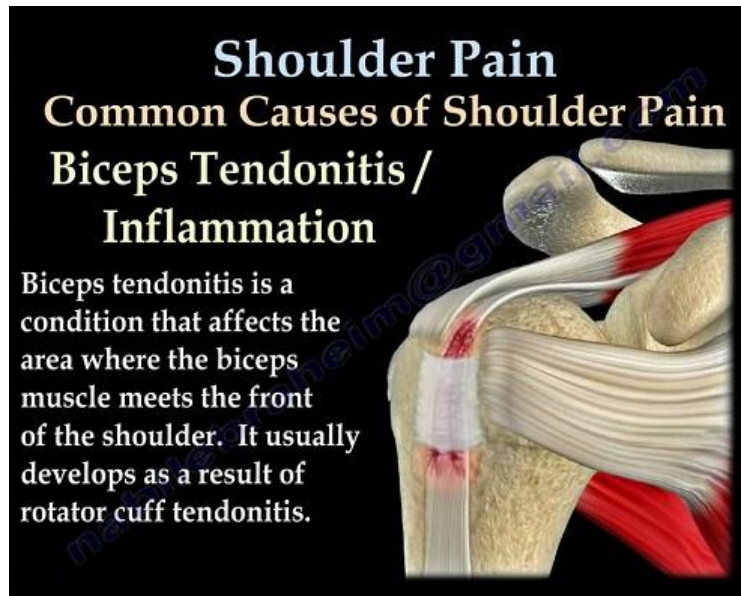
**Tendinitis** - Tendinitis is inflammation or irritation of a tendon — the thick fibrous cords that attach muscle to bone. The condition causes pain and tenderness just outside a joint. While tendinitis can occur in any of your tendons, it's most common around your shoulders, elbows, wrists, knees and heels.

**Thoracic outlet syndrome** - Thoracic outlet syndrome (TOS) is a group of disorders that occur when blood vessels or nerves in the space between your collarbone and your first rib (thoracic outlet) are compressed. This can cause shoulder and neck pain and numbness in your fingers. Common causes of thoracic outlet syndrome include physical trauma from a car accident, repetitive injuries from job or sports related activities.

**Torn shoulder cartilage** - A shoulder labral tear is an injury to the ring of cartilage in the shoulder joint. Two of the most common tears are the SLAP (Superior Labral tear form Anterior to Posterior) tear and the Bankart tear. Some kinds of labral tears - especially a Bankart lesion - can increase the potential for shoulder dislocations.

**There are sure a lot of things that can cause shoulder pain! What are the most common causes?**

The most common cause of shoulder pain occurs when rotator cuff tendons become trapped under the bony area in the shoulder. The tendons become inflamed or damaged. **This condition is called rotator cuff tendinitis or bursitis.**



**Other common shoulder pain causes include:**

- Arthritis in the shoulder joint.
- Bone spurs in the shoulder area.
- Frozen shoulder, which occurs when the muscles, tendons, and ligaments inside the shoulder become stiff, making movement difficult and painful.
- Overuse or injury of nearby tendons, such as the bicep muscles of the arms.
- Tension in the muscles of your neck and shoulder: Tension is likely due to stress or poor posture.
- Chronic overuse injury: This type of injury occurs when you make the same motion with the shoulders over and over again.
- Trauma: Examples of trauma include a fall, an automobile accident, or an acute sports injury.

**Cause of my shoulder pain**

*My best guess is rotator cuff tendinitis. I did suffer a fall while walking my dog a couple of months ago in February, but I didn't feel any shoulder pain at the time. The shoulder pain started about a month ago.*



## Symptoms of shoulder pain

There are many causes of shoulder pain, and they all have their own unique set of symptoms.

Depending on the cause of your shoulder pain you may experience:

1. Pain deep in the shoulder joint, in the back or the front of the shoulder and the upper part of the arm. Sometimes the pain in the shoulder can be described as a 'catching pain'. The location and type of pain is likely to relate to the structure causing the pain.
2. Reduced movement and pain when moving your arm or shoulder.
3. Weakness of the shoulder/upper arm. Depending on the condition, there may be a sensation of the joint slipping out and back into the joint socket, or the shoulder can become completely dislodged (dislocated).
4. Sensations of pins and needles (tingling) and burning pain. This is more likely to be associated with nerves from the neck than the shoulder joint itself.
5. Lack of movement after a shoulder dislocation. This is usually due to pain. Complete rotator cuff tears and injury to the axillary nerve both cause weakness in moving the arm away from the body. These problems require close clinical examination.

## My symptoms

*I have been experiencing pain in both shoulders for over a month. There is pain when I reach (stretch) one or both arms in any direction except down. The worst pain comes when I try to throw something like a ball. There is little or no pain when I'm just sitting, walking, or lying on my back. There is no redness and both shoulders appear to look normal. I have not been to my doctor yet because the pain is not that bad, and I can perform most all necessary arm and shoulder functions. I thought maybe whatever is causing the pain would get better by itself, but so far it does not seem to be getting any better.*



### **When should you (or me) see a doctor?**

Get immediate medical care for shoulder pain if pain is caused by an injury and accompanied by any of the following:

- Exposed bone or tendon
- Deformity to the shoulder joint
- Severe pain
- Sudden swelling or redness
- An inability to raise your arm

Persistent shoulder pain that has lasted for longer than a few weeks or cannot be relieved by home treatments, such as over-the-counter pain medication or hot/cold therapy.

Difficulty sleeping due to pain or discomfort of the affected shoulder(s).



### **Diagnosing shoulder pain**

Health practitioners who treat shoulder pain are trained to investigate and identify the exact cause of the condition or injury causing the pain. They will do this by:

- Asking about your shoulder pain, including potential causes such as recent injuries, other health conditions, if you have had shoulder pain before, things that make your pain worse, things that make it better, etc.
- Conducting a thorough physical exam including blood tests.

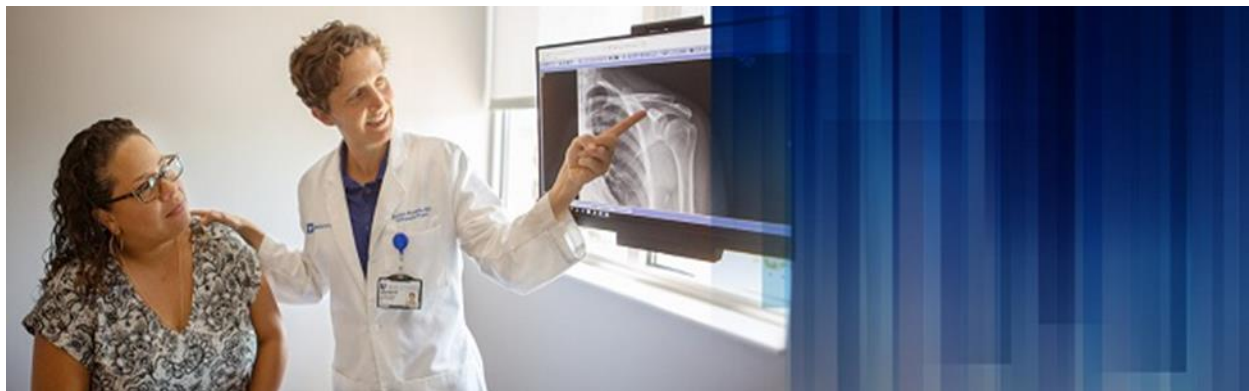
It's important to know that many investigations show 'changes' to your shoulder that are due the normal passage of time (even by age 45), not 'damage' to your shoulder. This means normal wear and tear on your shoulders as you age may be causing the pain. An experienced health practitioner can help you to understand the difference.

### **Additional tests**

From this information, doctors can determine the likelihood of particular structures in the shoulder being involved. Usually, they will suggest that one or more of the following tests are needed to confirm cause:

#### **X-ray**

X-rays provide images of your bones and joints. They can show any changes caused by arthritis in the shoulder joint such as bone spurs, narrowed joint space or fractures. However, x-rays don't show any changes or problems with your soft tissues such as muscles, tendons, and ligaments.



#### **Ultrasound**

Ultrasounds are typically used to investigate your rotator cuff tendon for inflammation, tears, or rupture. While it can be a helpful tool to use and can provide clues to identify the source of your pain, a diagnosis can't be made using the ultrasound alone. If an ultrasound is ordered, then an x-ray should also be arranged. Both tests will provide more complete information about the state of your joints and the tendon.

#### **CT and MRI**

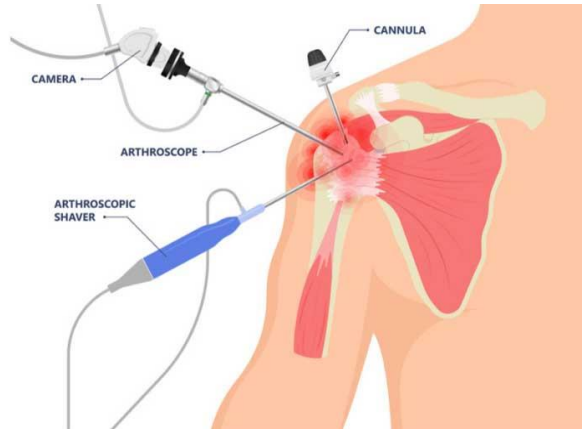
Computed tomography (CT) and magnetic resonance imaging (MRI) scans are usually not the first test used to investigate shoulder pain. They may be used when a fracture is suspected, or an accident is involved. These scans will help determine the extent of injury and whether further assessment and treatment by a surgeon is needed.

#### **Electromyography (EMG)**

This measures the electrical activity in your muscles to see if there are any problems with your nerves.

## **Arthroscopy**

This is a surgical procedure that lets a tiny fiber-optic camera show your doctor high-definition images of your shoulder. In some cases, your doctor may also be able to treat the problem during the procedure.



### **Arthroscopy Surgical Procedure**

## **Treating shoulder pain**

There are many treatments for shoulder pain. Let's start with things you can do at home before going to the doctor. Remember, this common joint problem can affect anyone. Shoulder pain may involve the cartilage, ligaments, muscles, nerves, or tendons. It can also include the shoulder blade, neck, arm, and hand. Early treatment is important. It can take eight weeks or longer for shoulder pain to heal. At-home shoulder pain remedies may help recovery.

## **Some sore shoulder remedies you can do at home**

Treating shoulder pain often involves soothing inflammation (swelling and redness) and strengthening muscles. Here are several ways you can take care of yourself and relieve shoulder pain.

## **Anti-inflammatory medication**

Nonsteroidal anti-inflammatory medications (NSAIDs) help to relieve pain and lower inflammation. Over-the-counter drugs include aspirin, ibuprofen, and naproxen. Reducing inflammation is important in rotator cuff injuries, tendonitis and arthritis, and other shoulder injuries.

## **Cold compress**

Cold compresses can help reduce swelling in the shoulder. Cooling also helps to numb sharp pain. Apply an ice pack for up to 20 minutes, up to five times a

day. Use a frozen gel pack, ice cubes in a plastic bag, or a bag of frozen peas. Wrap the cold pack in a soft towel. Do not apply a cold pack directly to skin.

### **Compression**

Wrap the shoulder with an elastic medical bandage to help reduce swelling and pain. Use a cold compression bandage or a regular ACE bandage. You can also get a shoulder wrap from a pharmacy. Wrap it snugly but not too tight. You don't want to block blood flow. If your arm or hand begins to feel numb or tingly, or turn blue, loosen the compression bandage.



### **Heat therapy**

Heat helps to relax tense muscles and soothe a stiff shoulder. It can help with muscle pain and arthritis in the shoulder. Use a heated gel pack, heating pad or a hot water bottle.

### **Muscle relaxants**

Muscle relaxants may help treat pain if you have muscle tension or spasms around the shoulder joint. Common muscle relaxants include cyclobenzaprine, tizanidine, and baclofen. You will need a prescription from your doctor.

*Remember that muscle relaxants cause drowsiness and shouldn't be taken if you're driving or operating machinery.*

### **Pain medication**

Medications such as acetaminophen and aspirin can help ease pain. This helps you cope with the injury and get better sleep as you recover.



*Pain medications can cause side effects such as stomach upset and heartburn. Talk to a doctor if you are taking them for longer than four weeks.*

You can also try topical pain-relief gels and creams, which don't have the same side effects as oral pain meds. Diclofenac is one medication approved in two forms by the U.S. Food and Drug Administration for osteoarthritis treatment. It's available as 1 percent diclofenac sodium gel and 1.5 percent diclofenac sodium solution.

### **Rest and activity modification**

Stop or change the activity that may have caused the shoulder pain. It's important to move the shoulder gently. This helps to keep the shoulder muscles strong and flexible.

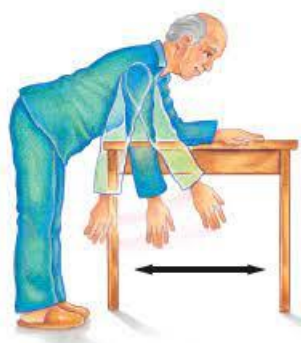
### **Shoulder exercises and stretches**

Regular exercises and stretches can keep your shoulder strong and flexible. A few things to remember before starting any exercise program:

- Stop any exercise if you have more shoulder pain. It may be too soon for this exercise.
- Watch your form. Exercising incorrectly can also cause or worsen shoulder problems.
- Warm up, even before deep stretching. Light shoulder rolls, gentle movements, or even a warm shower are all ways to warm up your muscles before exercise and stretching.

### **Pendulum stretch for range of motion**

- Stand and bend at the waist.
- Let your arm on the injured side hang straight down.
- Keep your neck relaxed.
- Move your arm in a circle up to 20 times.
- Do once or more times in a day.



### **Overhead shoulder stretch**

- Sit or stand to do this shoulder stretch.
- Intertwine your fingers in front of you.
- Bend your elbows and raise your arms above your head. You can also place your hands on your head or behind it.
- Gently squeeze your shoulder blades together to move your elbows back.
- Continue for up to 20 repetitions. Repeat 5 to 10 times a day.



### **Doctor recommended treatments**

Your doctor may recommend treatment for shoulder pain, including:

- Rest
- Heat or ice
- Aspirin or ibuprofen to reduce the pain and swelling
- Nonsteroidal anti-inflammatory drugs (NSAIDs)
- Injection of an anti-inflammatory medicine called corticosteroid
- Physical therapy
- Surgery if all other treatments do not work

If you have a rotator cuff problem, your provider will likely suggest self-care measures and exercises.

### **Conclusion**

I give up! I have no idea what is causing the pain in my shoulders. I called my doctor and have an appointment in a couple of weeks. In the meantime, I will try some of those home treatments and hope for the best.

I have decided that getting old is no fun. However, so far it is much better than the alternatives.

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