

# Shoulder Impingement Surgery



Restoring  
Function

# What Is Shoulder Impingement?

Do you have shoulder pain when raising your arm? If so, you may have shoulder impingement. This condition, also called **bursitis** or **tendinitis**, causes pain and problems with arm function. It is often caused by doing overhead activity. Your healthcare provider can help you relieve pain and treat your problem. You can also learn how to prevent shoulder problems from returning.

## What Are the Symptoms?

You may feel pain, pinching, or stiffness in your shoulder. Pain often comes with movement. But you may also feel it when you're not using your shoulder. For example, you may feel pain while trying to sleep.

## What Causes It?

Shoulder impingement can be caused by making repeated overhead movements. A forceful action repeated day after day without rest can cause a **repetitive motion injury (RMI)**. Some activities that can lead to RMIs include:

- Warehousing or shipping
- Painting or carpentry
- Swimming, tennis, softball, baseball, and other sports
- Weekend home repair

Impingement can be worsened by certain bone problems. In some cases, you may get impingement after many years of normal shoulder use.



Frequent overhead motions can lead to impingement.

## How Is It Diagnosed?

To learn more about your problem, your doctor will examine your shoulder. He or she also may do some of the following tests:

- **Impingement sign.** Your doctor will slowly raise your arms and guide them. Tell your doctor when you begin to feel pain.
- **Strength test.** With your arms raised, your doctor gently presses down on them while you try to resist.
- **X-ray.** This creates images of your shoulder bones. X-rays can show whether bone shape is causing impingement. They can also help rule out other problems.
- **Other tests.** Certain other tests may be done on your shoulder to check for impingement. Your doctor can explain these to you.



An impingement sign helps your doctor assess your problem.

# Learning About the Shoulder

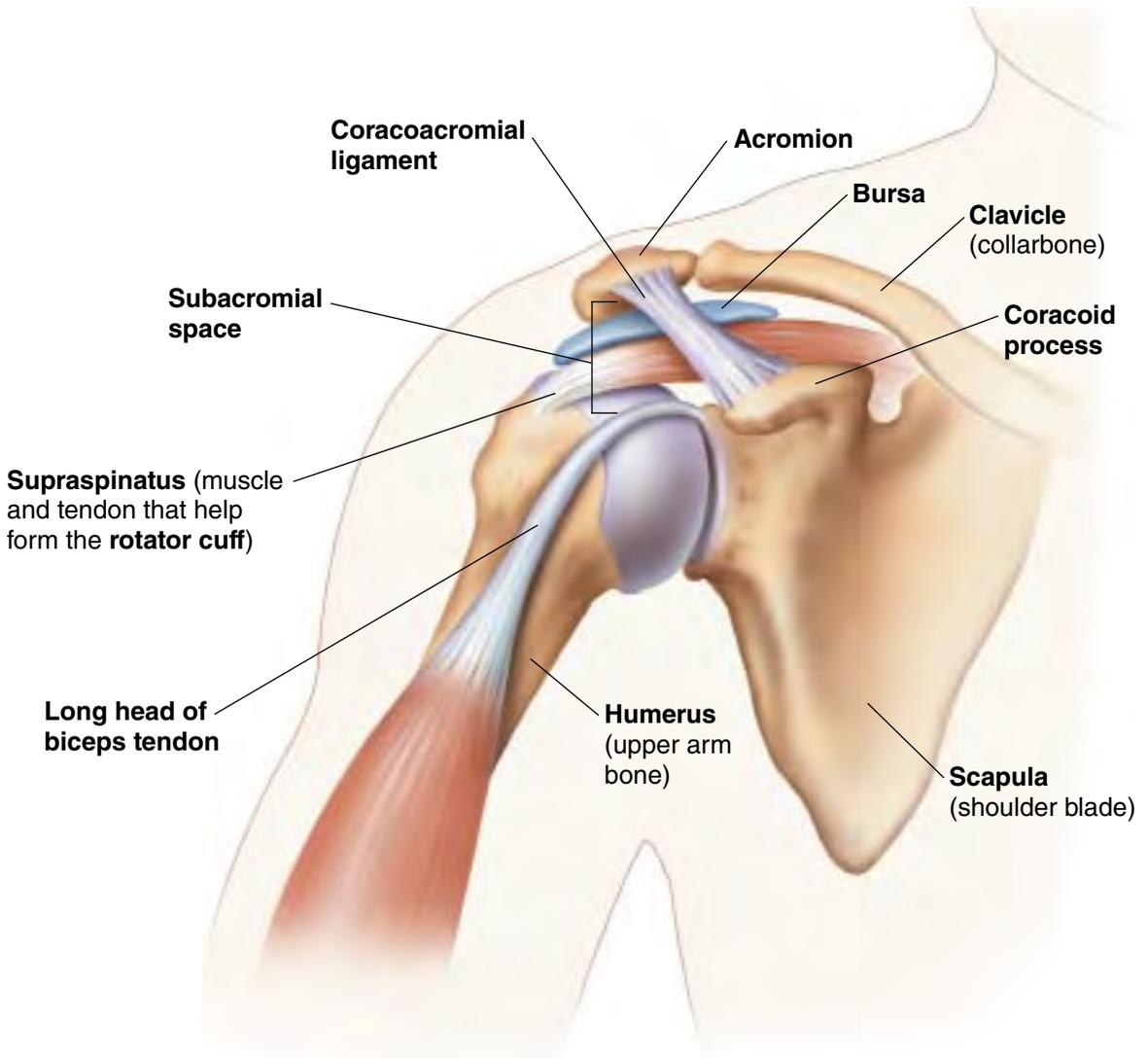
The shoulder is made up of bones, muscles, ligaments, and tendons. They work together so you can reach, swing, and lift in comfort. Learning about the parts of the shoulder and joint will help you to understand your shoulder problem.

## The Parts of the Joint

The shoulder joint is where the **humerus** (upper arm bone) meets the **scapula** (shoulder blade). Muscles and ligaments help make up the joint. They attach to the shoulder blade and upper arm bone. At the top of the shoulder blade are two bony knobs called the **acromion** and **coracoid process**.

## The Subacromial Space

The subacromial space is between the top of the humerus and the acromion. This space is filled with tendons and muscles. This space also contains the **bursa**, a sac of fluid that cushions shoulder parts as they move. When you raise your arm, the subacromial space compresses. When you lower your arm, the space opens again.



# Understanding Shoulder Impingement

Impingement occurs when the subacromial space is too small to let the parts move easily. This may be caused by joint inflammation (swelling). Swollen parts of the shoulder take up more room, making the joint space smaller. The shape and condition of shoulder bones may also add to impingement.

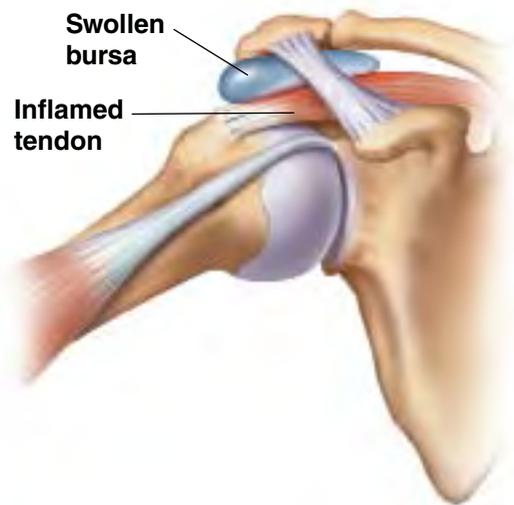
## How Problems Begin

Shoulder problems develop slowly over time. You may not notice a problem until it causes pain. There are many factors that can affect your shoulder.

### Overuse

Constant shoulder use can irritate the tendons and bursa. Then the body sends more blood to the irritated areas, causing swelling. As the swelling gets worse, two problems can develop:

- **Bursitis** is inflammation of the bursa. The bursa fills up with too much fluid, filling and squeezing the joint space.
- **Tendinitis** is inflammation of the tendons. Swollen tendons make the joint space smaller.

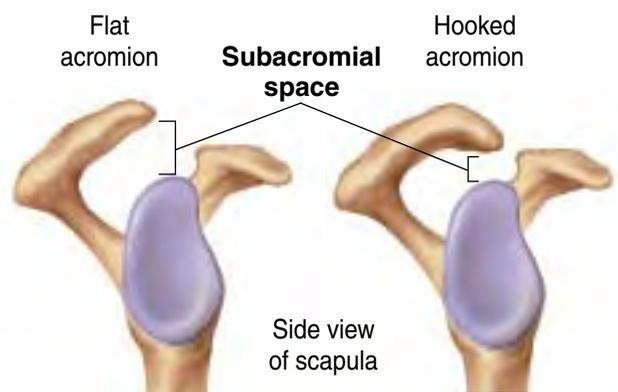


### Acromion Shape and Condition

The acromion is part of the shoulder bone. It may be flat or hooked. If your acromion is hooked, the acromial space may be smaller than normal. This makes you more prone to shoulder problems. Bone spurs (growths on the bone) can also narrow the subacromial space.

### Other Causes

Your shoulder health may also be affected by poor posture, weak muscles, and other conditions.



A hooked acromion makes the subacromial space smaller.

## Finding Relief

If shoulder problems remain untreated, they can lead to more serious problems. Read on to learn how to start treating your shoulder so it can heal.

# Resting the Shoulder

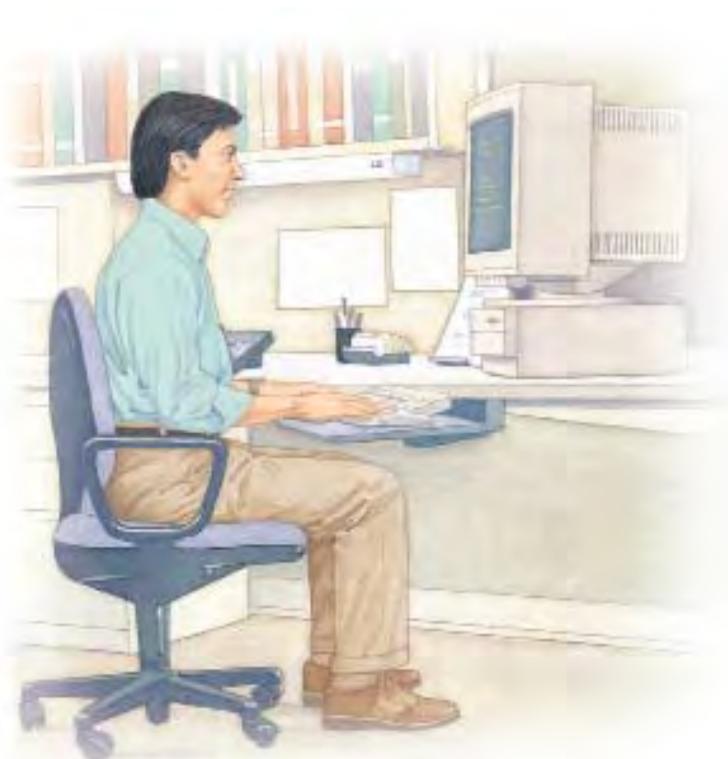
Rest is a key step in healing your shoulder. Remind yourself: If an activity hurts, don't do it. Otherwise, you may prevent healing and increase pain. To give your shoulder the best possible rest, read the tips here. They can help you adjust your posture and use your shoulder wisely.

## Using Active Rest

When you have impingement, your shoulder needs active rest. This means avoiding overhead movements and activities that cause pain. Don't stop using your shoulder completely. This can cause it to stiffen or "freeze." As you heal, use these tips to reduce strain and increase comfort.

## Adjusting Your Posture

- Make sure your neck, shoulders, and hips are in line. This helps reduce strain on your shoulder so you can heal more quickly.
- Check and adjust your posture when you're sitting, standing, and even lying down. Try not to sleep on the affected shoulder.
- Fit your workstation to your body (ergonomics). Place your monitor or work at eye level. Adjust work surfaces so you don't have to lean or stretch.
- Support your lower back. Slumping over can add strain to your shoulders.



Use good posture at work and at home to help your shoulder heal.

## Using Your Shoulder Wisely

Making changes in how you use your shoulder can lessen your chances of impingement. The ideas below focus mainly on preventing repetitive motion injuries (RMIs). Remember, if a movement hurts, don't do it.

### Positioning Your Body

- Keep your work within easy reach. This helps you avoid stretching or twisting your arms and shoulders.
- Avoid raising your arms when working above shoulder level.
- Use a stool or stepladder to bring your body closer to overhead tasks. This prevents awkward reaching.

### Changing Tasks

- Vary your on-the-job activity to reduce the risk of RMIs. Limit tasks that must be done over your head.
- Give your shoulder enough time to rest and recover from stressful tasks.
- If one task causes you to feel pain, stop. Rest your shoulder. Go on to another task, if possible.

### Limiting Force

- Limit activities that could strain shoulder muscles and tendons. This includes heavy lifting, pushing, and pulling. Get help when needed, or use dollies and wheelbarrows.
- Find the best tools for each activity. The best tool lets you use the least force.
- Rest before repeating a task that requires a lot of force. The more frequent the force, the greater the risk of RMIs.



Keep work below shoulder level.



Vary activities to help prevent RMIs.



Ask for help when you need it.

# Relieving Pain

Impingement can be treated a number of ways. Your healthcare provider will discuss your treatment options with you. Many steps can be taken to relieve pain on your own at home. But in other cases, you may need treatment that requires your healthcare provider's help.

## Finding the Best Treatment for You

Ice, heat, and medication can help relieve shoulder pain quickly. But if your pain continues, call your healthcare provider. Keep in mind that no two people are alike. You may need to try a few pain relief methods before you find the best one for you.

### Ice

Ice reduces inflammation and relieves pain. Apply an ice pack for about 15 minutes, 2 or 3 times a day. You can also use a bag of frozen peas instead of an ice pack. The bag will mold nicely to the shape of your shoulder. A pillow placed under your arm may make you more comfortable.

**Note:** Don't put the cold item directly on your skin.  Place it on top of your shirt or wrap it in a thin towel or washcloth.



### Heat

Heat may soothe aching muscles, but it won't reduce inflammation. You can use a heating pad or take a warm shower or bath. Do this for 10 to 15 minutes.

**Note:** Avoid heat when pain is constant. Heat is best when used for warming up before an activity.  You can also alternate ice and heat.



### Medication

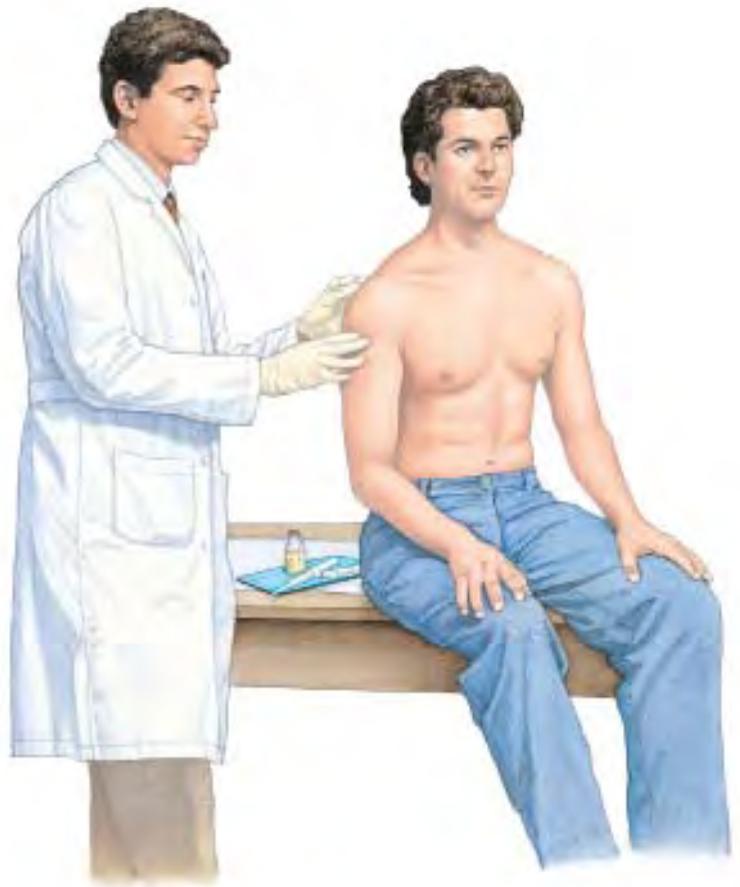
Try over-the-counter pain relievers. Your doctor may also prescribe medication to relieve pain and inflammation. If so, ask how and when to take your medication. Be sure to follow all instructions.



## Injection Therapy

Injection therapy may be used to help diagnose your problem. It may also be used to reduce pain. The doctor may begin by numbing a small spot on the shoulder. He or she then injects an anti-inflammatory medication into the shoulder. It can take a few hours or even a couple of days before the injection helps.

**Note:** Talk to your healthcare provider about the possible risks and benefits of injection therapy.



## Electrical Stimulation

Electrical stimulation can help reduce pain and swelling. Your healthcare provider attaches small pads to your shoulder. A mild electric current then flows into your shoulder. You may feel tingling, but not pain.

## Ultrasound

Ultrasound can help reduce pain. First a slick gel or medicated cream is applied to your shoulder. Then your healthcare provider places a small device over the area. The device uses sound waves to loosen shoulder tightness. This treatment is also pain-free.

# Increasing Flexibility

Stretching exercises can help increase your pain-free range of motion. Your healthcare provider will pick the best stretching exercises for you. Breathe normally when you exercise. And try to use smooth, fluid movements.

## Broom Stretch

1. Stand up or lie on the floor. Place the palm of your hand over the end of a broomstick or cane. Grasp the stick farther down with the other hand, palm facing down.
2. Push the end of the stick up on the side of your injured shoulder as high as you comfortably can.
3. Hold for a few seconds.
4. Return to the starting position.
5. Repeat 3 to 5 times.

**Note:** Don't force the stretch. Build up to holding each stretch for 10 to 30 seconds.



## Back Scratcher

1. Stand straight, placing the back of the hand on the injured side flat against your lower back.
2. Throw one end of a towel over your shoulder. With your other hand, grab the towel behind your back.
3. Pull down gently on the towel with your front arm. Let your back arm slide up as high as it comfortably can. You'll feel a stretch in your shoulder.
4. Repeat 3 to 5 times.

**Note:** Build up to holding each stretch for 10 to 30 seconds.



**Note:** Your healthcare provider may give you special instructions for doing the exercises on these pages. Make sure you follow them closely. If you feel pain, stop the exercise. If the pain continues even after stopping, call your healthcare provider. **Pendulum Exercise**



1. Lean over with your good arm supported on a table or chair.
2. Relax the arm on the painful side, letting it hang straight down.
3. Slowly begin to swing the relaxed arm. Move it in a circle, then reverse the direction. Then move it backward and forward. Finally, move it side to side.

**Note:** Spend about 5 minutes doing the exercise, 3 times a day. Change direction after 1 minute of motion. Or follow your healthcare provider's instructions if they differ from these. **Wall Walk**



1. Stand with your shoulder about 2 feet from the wall.
2. Raise your arm to shoulder level and gently “walk” your fingers up the wall as high as you can.
3. Hold for a few seconds. Then walk your fingers back down.
4. Repeat 3 to 5 times.

**Note:** Do this stretch only if your healthcare provider recommends it. Move closer to the wall as you repeat. Build up to holding each stretch for 10 to 30 seconds.



# Increasing Strength

Strengthening exercises help make your injured shoulder more stable. To warm up, do flexibility (stretching) exercises first. Your healthcare provider will tell you what size hand weights to use for the strengthening exercises below. If you don't have hand weights, try using cans of soup instead.

## Internal Rotation

1. With knees bent, lie on a firm surface. Using the hand on the same side as your injured shoulder, grasp a weight. Bend that arm to a right angle (90 degrees). Rest your elbow on the floor.
2. Keeping your elbow next to your side, lower your forearm toward the floor, away from your body. Do not lower your hand all the way to the floor.
3. Slowly return your forearm to your side. Repeat.



**Note:** Support your head with a pillow.



Work up to 5 to 15 lifts.

## External Rotation

1. Lie on your uninjured side with your head supported by a pillow or your arm.
2. Place a small rolled-up towel under your top elbow. Grasp a weight with your top hand and bend that arm to a right angle, resting your forearm against your stomach.
3. Keeping your elbow against the towel, slowly lift the weight until your forearm is slightly higher than your elbow. Return to the starting position. Repeat.



**Note:** Be sure to keep your elbow against the towel. Work up to 5 to 15 lifts.

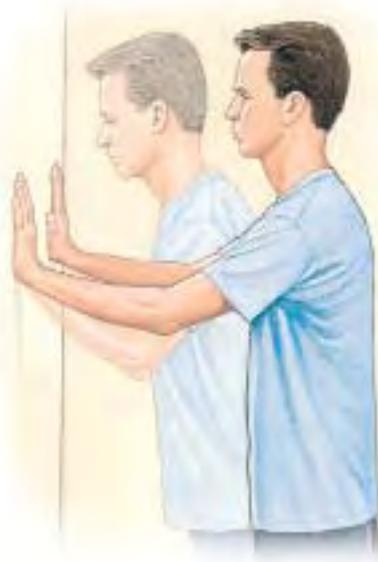


**Note:** Your healthcare provider may give you special instructions for doing the exercises on these pages. Make sure you follow them closely. If you feel pain, stop the exercise. If the pain continues even after stopping, call your healthcare provider.



## Wall Pushup

1. With feet and hands shoulder-width apart, place your palms on the wall, standing about an arm's length away.
2. Keeping your knees straight and heels on the floor, bend your elbows and lean forward as far as you comfortably can. Your elbows should be pointing down. Then push away from the wall to the starting position. Repeat.



**Note:** Wear shoes that keep you from slipping.



Work up to 5 to 15 wall pushups.

## Side Raise

1. Stand with your arms out and held slightly in front of you. Hold one weight in each hand.
2. Keep your elbows straight with your thumbs pointing down. Lift your arms upward. Don't lift your wrists higher than shoulder level.
3. Slowly lower your arms to the starting position. Repeat.



**Note:** Build up to 5 to 15 lifts.



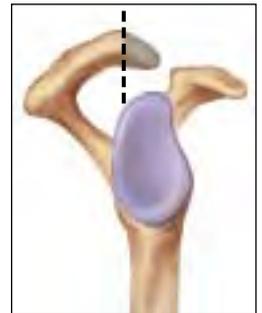
# Having Surgery

For many people, self-care measures are enough to relieve shoulder impingement symptoms. But if self-care and other treatments haven't worked, surgery may be an option. Surgery can help free up the joint space, allowing pain-free motion. Talk to your doctor to see if surgery is right for you.

## Surgery for Shoulder Impingement

The type of surgery you have depends on your shoulder problem. Surgery can remove the bursa if it is swollen. If the coracoacromial ligament is tight, it may be released. If the acromion is hooked or has bone spurs, a portion of it may be removed. Before surgery, you'll be given medication to keep you free from pain. There are different types of surgery:

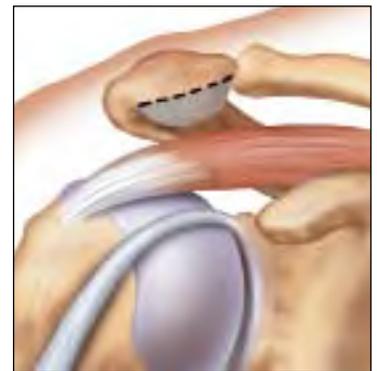
- **During arthroscopy**, small incisions are made in the shoulder. Next, a small lighted instrument (arthroscope) is inserted. A tiny camera is attached on one end of the arthroscope. The camera sends images to a video monitor, allowing the surgeon to see inside the shoulder.
- **During open surgery**, incisions are made in the shoulder so the surgeon can work inside.



A swollen bursa may be removed.



A tight coracoacromial ligament may be released.



A portion of the acromion may be removed.

## Risks and Complications of Surgery

Your doctor will discuss the possible risks and complications of the procedure with you. These may include:

- Infection
- Damage to nerves or blood vessels
- Loss of flexibility

## Before Surgery

You need to prepare ahead of time for shoulder surgery. Follow all your doctor's instructions.

- Stop taking anti-inflammatory medication, including aspirin, before surgery if directed.
- Tell your doctor about any prescription or over-the-counter medications, herbs, or supplements that you take. Ask whether you should stop taking any before surgery.
- Don't eat or drink anything after midnight the night before surgery. This includes water.
- Arrange for a friend or family member to give you a ride home.



The night before surgery, don't eat or drink anything after midnight.

## After Surgery

You'll be taken to a recovery area after the procedure. A doctor or nurse will give you medication to relieve discomfort. Know that:

- If you had arthroscopy, you may go home the same day. If you had open surgery, you may need to stay overnight.
- You should ask about self-care before you go home. This may include wearing an arm sling, taking medication, or using ice.
- It may take a few months to feel the full benefit of the surgery.



Keeping your arm in a sling as instructed will help you recover faster.

## When to Call the Doctor

After surgery, it's normal to feel some shoulder numbness for the first few days. But call your doctor if you notice any of the following:

- Excessive pain or swelling
- Excessive drainage from the wound
- Numbness in your fingers or hand
- Increased redness near an incision
- Fever or temperature of 101°F (38.3°C) or higher

# Taking Care of Your Shoulder

Below is a list of exercises. Have your doctor tell you how many times you should do them per day. Then, do them as directed. Continuing your self-care program will help keep your shoulder strong, flexible, and pain free.

- Broom stretch
- Back scratcher
- Pendulum exercise
- Wall walk
- Internal rotation
- External rotation
- Wall pushup
- Side raise

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