VOLUME 21, NUMBER 3 - SUMMER 2009

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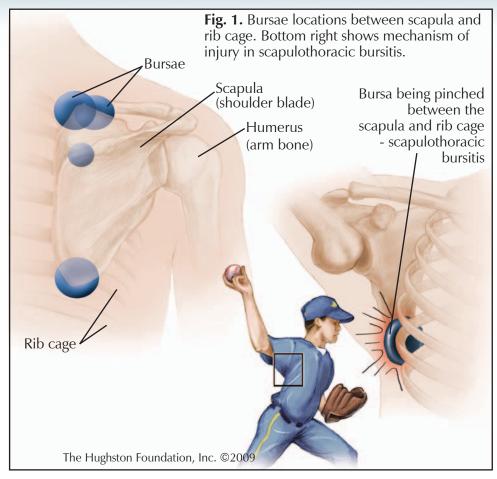
A Painful Snapping Shoulder

Your scapula, or shoulder blade, is a thin triangular-shaped bone that connects to the rest of your skeleton through the clavicle (collar bone), and it rests against your thorax (rib cage). The space formed between the shoulder blade and the rib cage is often referred to as the scapulothoracic joint. However, it is not actually a joint because it has no capsule or ligamentous attachments. More precisely, it is identified as the

scapulothoracic articulation. Your scapula attaches to several muscles surrounding the shoulder, playing a crucial role in shoulder stability and function.

What is snapping shoulder?

In the space between your scapula and your rib cage, there are several bursae (Fig. 1). The bursa's sac-like structure cushions and protects the soft tissues from bony prominences by producing a lubricating fluid that fills the sac and decreases friction between the bones and other structures. When a bursa is injured it can become inflamed. Inflammation of the bursa between the scapula and rib cage is called scapulothoracic bursitis. Scapulothoracic bursitis can cause pain and a popping sensation over the upper back when the shoulders are shrugged and is often referred to as "the snapping shoulder."

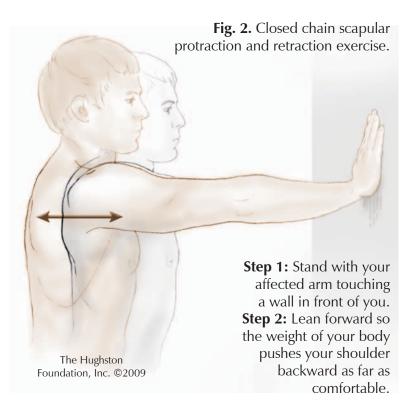


What causes snapping shoulder?

Bursitis caused by pressure and friction between the scapula and the adjacent second and third ribs from overuse or injury can lead to snapping shoulder.² Overuse syndromes, including those caused by overhead sports like throwing, swimming, and tennis or any type of work that requires repetitive or constant movement of the scapula against the rib cage can irritate the bursa. Injury to the shoulder and scapula from a motor vehicle accident or a fall can also injure the bursa. Repetitive or chronic injury to the bursa can cause scarring and fibrosis (hardening of tissue). This scarring leads to pain and snapping. In rare cases, bony abnormalities of the scapula or ribs can cause painful snapping.

Diagnosis

Your doctor can diagnose a snapping shoulder based on the history of symptoms and a physical examination. It is



important to note that some people can have a snapping shoulder that does not cause pain. However, patients who have a painful snapping shoulder often experience pain with increasing activity (sports or repetitive work activities) and can have an audible and palpable (capable of being touched or felt) popping with motion of the scapula. This is a relatively rare condition. In severe cases, some patients report pain at rest.

Physical examination of the scapula and shoulder can reveal abnormal motion and winging (the shoulder blade sticks out) or tenderness along the inside border of the scapula. Furthermore, patients with a painful snapping shoulder can have muscle weakness, decreased flexibility, and loss of muscle bulk in the involved shoulder region. Your physician will look for and rule out problems in the shoulder joint that can lead to abnormal motion of the scapulothoracic joint.

Treatment options

You should seek medical advice if your snapping shoulder is painful and it interrupts your ability to perform daily tasks or your ability to participate in sports and other hobbies. The initial treatment for painful snapping shoulder consists of rest, nonsteroidal anti-inflammatory medication (NSAIDs), activity modification, and shoulder rehabilitation.² The rehabilitation program should focus on posture, strength, and endurance. Scapular range of motion stretches and strengthening exercises, such as the closed chain scapular protraction and retraction (Fig. 2) and the standing W (Fig. 3) should

be emphasized early on. To help reduce inflammation and pain, your doctor can inject a mixture of cortisone and local anesthetics (numbing medication) to the tender area.

Most patients improve with nonoperative measures, but if these measures fail, surgery can be beneficial. Using a minimally invasive technique, your doctor places a tiny camera in the space between your shoulder blade and your rib cage and uses a small shaver to clean out the inflamed, scarred bursa. Medical studies have shown good to excellent outcomes in a high percentage of patients. Most patients are able to return to sports or work within 4 months, usually after upper back posture, scapular control, and strength are obtained with a rehabilitation program like the one described for nonoperative treatment.

> Augustine H. Conduah, MD Columbus, Georgia

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Fig. 3. Standing W exercise. **Step 1:** Stand with your feet about shoulder width apart and knees slightly bent. Rest your arms in front of you. Step 2: Bend your arms and raise them up to form a W, as you stand up straight. Once your hands are even with your shoulders, you should feel your shoulder blades pressing The Hughston toward each other. Foundation, Inc. ©2009

Greater Trochanteric Bursitis

Bursae are found throughout the body serving as cushions, shock absorbers, and lubricants in places where tendons and ligaments glide over bone. Bursitis is a term used to describe the inflammation and swelling of a bursa that often results in pain.

Pelvic bone Greater trochanter

Fig. 1. Hip anatomy

Femur -

(thighbone)

Greater trochanteric

bursitis is a common cause of hip pain in adults.1 It occurs when the bursa that lies between the iliotibial tract (the dense fibrous connective tissue on the outside of the hip that connects to the knee) and the greater trochanter (the bony prominence at the top of the thighbone) becomes inflamed and painful (Fig. 1).

Symptoms

Patients with greater trochanteric

bursitis often complain of pain on the outside area of the hip. Patients often describe the pain as sharp and intense in the early stages and then later as dull and achy and spread out over the hip and thigh area. A sharp pain can sometimes be felt when you get up from a chair or get out of a car after sitting a while. Pain often occurs during repetitive motions, such as walking or stair climbing. The pain is often made worse at night by lying on the side because it puts pressure on the inflamed area.

Causes

Hip bursitis can affect anyone; however, studies have shown that it is more common in women, middle-aged adults, and the elderly.1 A change in your walking pattern, such as a limp, can change the mechanics of the muscles and tendons around the hip resulting in an increase in pressure and friction near the greater trochanter. This change can lead to the development of bursitis.

Many things can cause you to change your walking pattern. Injury to the hip from a fall or an overuse injury from repetitive movements can cause a change in your gait. Previous surgery or a hip implant can lead to bursitis, because your pattern of walking may have changed. Bone spurs, rheumatoid arthritis, spine disease, gout, and in rare cases, infection can cause the bursa to become inflamed.

Diagnosis

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You should seek medical attention if you have sharp pain on the outside of the hip or pain that radiates at night through your thigh. If you can put pressure on your hip and touch an area of pain and tenderness, you could have an inflamed bursa. If you have fallen, or have been diagnosed with rheumatoid arthritis, gout, or spine disease, discuss your symptoms with your physician. To diagnosis hip bursitis, the doctor will perform a physical exam and may order additional tests, such as an x-ray or MRI (magnetic resonance imaging).

The mainstay

of treatment is rest and making modifications to certain activities that aggravate the area and cause pain. Avoid lying on your side by placing a pillow under your hip at night. Taking an anti-inflammatory medication, such as ibuprofen or naproxen, applying ice to the area of

pain, and undergoing physical therapy can help.

Torn

tendon

tract

Bursa

Iliotibial

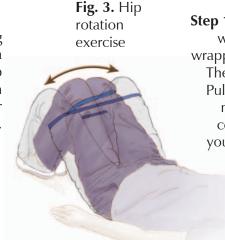
A physical therapy program can address the range of motion and strength deficits that underlie gait deviations. First, neutral positioning of the lumbar spine and pelvis must be achieved. Then, range of motion and stretching activities are introduced to gain full extension, adduction, and rotation of the hip joint (Figs. 2 & 3). Strengthening exercises for the stabilizing muscles of the lumbar spine and pelvis, as well as the gluteal muscles, are incorporated into the physical therapy program. Often, modalities such as an iontophoresis unit can be used to decrease inflammation. The primary goal of physical therapy is to increase the patient's ability to perform desired activities with less pain.

If the previous measures fail to relieve the pain, your doctor may suggest a local injection of corticosteroid into the bursa to help decrease the inflammation that is causing your pain. If nonsurgical measures fail to relieve the symptoms, then other sources of lateral hip pain must be considered. One such cause could be a tear in the tendon that attaches to the tip of the greater trochanter (Fig. 1). Physical examination and an MRI can be used to diagnose these tears. Patients with a torn tendon often have weakness and pain that does not completely resolve with corticosteroid injections to the bursa. If a tear in the



Fig. 2. Hip abduction exercise

Step 1: Lie on your unaffected side with your leg bent for stabilization. Rest your affected leg in a straight position. Step 2: Raise the affected leg up with control, keeping the knee straight, going as high as comfortable and without rolling your body backwards.



Step 1: Lie on your back with knees bent and wrapped together with a Thera-band®. Step 2: Pull your legs apart no more than 45° with control, making sure your back remains flat on the surface.

tendon is diagnosed and the pain on the side of the hip and thigh does not respond to nonsurgical treatment, you may be a candidate for surgical repair of the torn tendon and removal of the inflamed bursal tissue.

Surgery

Surgery for trochanteric bursitis can be done as an open or an endoscopic surgical procedure. If there is no other injury or abnormal condition needing surgical treatment, the bursitis is often treated with an endoscopic bursectomy, which is removal of the bursa, and an incision in the iliotibial band to decrease friction in the area and prevent its recurrence.² The endoscopic procedure is done on an outpatient basis, and patients generally notice that their pain resolves within a few days after the procedure.

If an associated tear of the abductor tendon is found, then an open surgery allows for repair of the tendon, in addition to removal of the inflamed bursa. This surgery is most often done as an inpatient procedure with patients

staying overnight. After surgery, patients are placed on crutches and rehabilitation is begun after the tendon has been allowed time to heal back to the bone.

For most patients, nonsurgical treatment is successful. Rest, stretching, and anti-inflammatory drugs usually help relieve the pain. Avoid repetitive activities that put stress on your hip. Lose weight if you need to. Wear proper fitting shoes that can help reduce the risk of a fall and help you to use good posture. Follow an exercise program to maintain strength and flexibility in the hip muscles.

> Ryan Geringer, DO Columbus, Georgia

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Cortisone Injections

Cortisone therapy is a common treatment option for people suffering from chronic illness, disease, or painful injuries to the joints, ligaments, tendons, or muscles. Cortisone is a natural steroid that is released from the adrenal gland into the bloodstream when the body undergoes any type of stress. When released naturally, cortisone provides relief for a short amount of time. Injected synthetic cortisone mimics the natural cortisone in the body and provides a more long-lasting effect to the injured area.

What are cortisone injections used for?

Despite a common myth, cortisone injections do not heal injuries. Cortisone, an anti-inflammatory medication, treats inflammation at the injection site, but it does not aid in

the healing process. When inflammation occurs in a joint, muscle, or ligament it often causes swelling, which in turn can decrease the range of motion and increase pain. If the pain subsides in the area after a cortisone injection, it is due to a decrease in inflammation.

Physicians prescribe cortisone injections for conditions, such as shoulder bursitis, knee arthritis, tennis elbow, or trigger finger, in which inflammation is the underlying problem (Figs. 1 & 2). A popular treatment for athletes with joint pain, cortisone quickly relieves the pain and allows for an earlier return to play.

What are the side effects?

As with any medication, side effects can occur after an injection of cortisone. A cortisone flare can occur if the

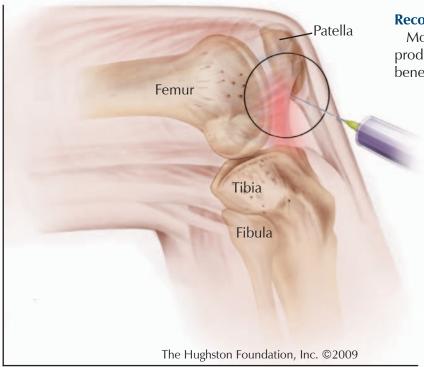
injected cortisone crystallizes. The crystallization causes pain worse than before the injection, but it usually resolves after a day or two of icing the area. A painless, but noticeable side effect is the lightening or whitening of skin color at the injection site. The skin discoloration usually resolves over time. Other side effects include weakening of tendons and cartilage at the injection site after repeated treatment over months or years. Most orthopaedists recommend having injections at least 3 months apart and limiting the number of injections.

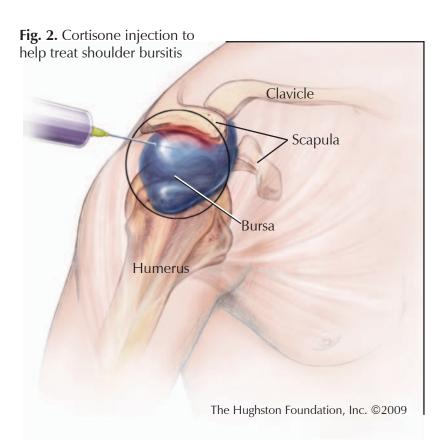
What are the side effects in athletes?

Athletes who receive cortisone injections should know the risks involved with the treatment because cortisone can inhibit the healing of an injury. The theory behind the use of cortisone is to take the inflammation away from the area, thus decreasing pain; however, without inflammation there is no healing. If an athlete receives the injection during the season and the athlete continues to play, the injured area may not fully heal because there is no rest time and the cortisone has actually slowed the healing process. With the athlete injured and still playing, further damage can occur.

Cortisone injections can give athletes a false sense that injuries are healed by blocking the healing and not allowing the injured structure to

Fig. 1. Cortisone injection in the knee





send off a pain signal that something is wrong and needs to be corrected. Additionally, cortisone actually accelerates the degenerative process in the tendon, ligament, or joint in which it was injected. For this reason, athletes receiving cortisone should not return to play immediately after an injection even if the injured area feels better. In fact, return to play immediately after an injection can result in ligament and tendon tears, as well as the breakdown of cartilage in joints.

Recommendations

Most often, cortisone injections are safe and rarely produce serious side effects. For the most part, the beneficial effects far outweigh the risks, but care should be

taken by athletes and healthcare professionals because the injections can give a false sense of well-being. By decreasing the inflammation that causes pain, cortisone can help patients gain mobility. Therefore, a patient can often begin and can fully participate in a rehabilitation program sooner, which will help to heal the injury.

> Stacy Dimoff, ATC Columbus, Georgia

Further Reading:

Cluett J. Cortisone Shots: Treatment with Steroid Injections. About.com Health and Disease. Retrieved July 7, 2009. http://orthopedics.about.com/od/ paintreatment/f/sideeffects.htm.



Have you lost weight and then regained it? Have you lost weight and then regained more than you started with? Have you been through a cycle of losing and then regaining weight more than once in your life? If you have, you're not alone; millions of Americans have experienced weight cycling. With more than one-third of the adult population considered obese,¹ it's no wonder many of us continue on an endless cycle of losing and gaining weight.

What is weight cycling?

Weight cycling refers to the repeated loss and regaining of weight. In 1994, the National Task Force on the Prevention and Treatment of Obesity considered the major concerns health professionals have relating to weight cycling.² At the time, the task force did not find any adverse effects on body composition, energy expenditure, or any health risk factors associated with weight cycling. However, some recent studies from the National Institutes of Health³ and in the Journal of the American College of Cardiology and Obesity have suggested a link to high cholesterol, high blood pressure, gall bladder disease, binge eating, and a faster rate of weight gain in women who weight cycle.

There are many programs and systems for weight loss, but there is really only one way to lose weight and that is to consume fewer calories than you burn. Even with all the available weight loss programs, it isn't always easy to lose the weight, and it can be even harder to keep it off. The key to successful weight control is making lifestyle changes in your eating habits and physical activity that you can keep up for the rest of your life.

What are the negative effects?

The complexity of weight cycling is more than likely the result of self image, trying to meet the expectations of other people, and the stigma of being overweight. Gaining weight after the success of losing can have a negative result on your self-esteem. The pressures or desires to lose the weight again can often lead to the use of dangerous weight-loss remedies, such as diet pills, diuretics, and possibly the development of bulimic behaviors. Given that weight cycling does not work and without question is detrimental to both physical and mental health, what are the options?

How can you stop the cycle?

The best solution is twofold: learn to eat healthy and become physically active. Develop healthy eating habits

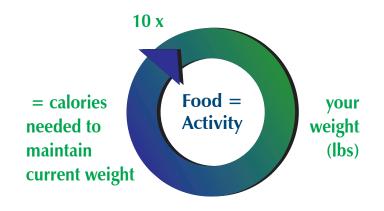
by eating well-balanced meals and smaller portions. The American Diabetes Association Exchange Program is one of the best plans to follow because it focuses on healthy foods and portions. It's not meant just for diabetics, it is a good program for safe weight loss. For more information, visit their Web site at www.diabetes.org/nutrition-and-recipes. As tempting as it is to eat pre-prepared frozen or low calorie meals, be sure to read the labels because they can be high in sodium and sugar. Also, if you can't eat this way for the rest of your life, it's not going to work. You need to change for a lifetime; otherwise you will regain the weight.

The Keys to Weight Loss

Healthy Food Portions (Consumed Calories) = or < Physical Activity (Burned Calories)

Metabolism

The rate which your body uses calories to support life:



Weight Loss Example

Starting weight: 150 lbs $10 \times 150 \text{ lbs} = 1,500 \text{ calories}$

Goal weight: 120 lbs

 $10 \times 120 \text{ lbs} = 1,200 \text{ calories}$

Rate of weight loss:

This is a difference of 30 lbs and 300 calories per day. Safely reducing your diet by 500 calories per day = 1 lb of weight lost per week.

Therefore, it would take approximately 30 weeks or 4.3 months to lose the weight.

To maintain a weight of 120 lbs

Consuming 1,200 calories = **Burning** 1,200 calories

Metabolism

One of the first steps to eating healthy is to understand your body's metabolism. To maintain your current weight, your metabolism burns 10 times the calories of your body weight. For example: 200 lbs x 10 = 2,000 calories tomaintain 200 pounds. Therefore, if the goal is to lose weight, a reduction of 500 calories per day would equal 3500 kilocalories or 1 pound of weight loss per week. Exercise and calorie reduction should be the focus, but don't try to lose too much weight too fast. Fast weight loss (more than 3 pounds per week) or large weight loss can actually increase your chance of developing gallstones.4 Men should take in no fewer than 1,500 calories per day and women should take in no fewer than 1,200 calories per day. If you try to deprive yourself of food, your metabolism will slow down accordingly.

Food diary

Keep a food diary to know what and how much food goes in your body. A food diary can help you track information to help you lose weight and feel accountable to yourself. For example, you might be able to cut some calories quickly by saying no to an afternoon snack and soft drink. You don't have to cut out the snack completely, but you may want to bring some fresh fruit or veggies with you to work, instead of grabbing a bag of chips from the vending machine. One change in your eating habits can save you hundreds of calories.

Reduce calories

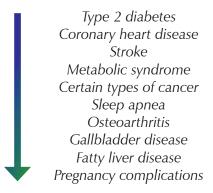
The other way to reduce the calories is to burn them. Find time to participate in physical activity at least 30 minutes a day, 3 times a week. It's much easier to keep up the activity if you actually enjoy doing it, such as shooting hoops, bicycling, running, or walking. If you try a sport or activity and you become bored with it, find something else or try to do more than one activity. For example, you might shoot hoops at the YMCA with friends on Monday; walk with your dog on Wednesday; and bike through the neighborhood with the kids on Saturday. When you find things to do that are fun, you will probably discover that 30 minutes isn't enough time. Remember, the activity helps burn those extra calories. So if you stop the activity, you stop burning those extra calories, and if you are maintaining the same calorie intake, you will gain weight.

Make a lifestyle change. Get out of the weight cycle and live life to the fullest by eating healthy, well-balanced meals, which includes 3 complete meals a day with healthy snacks in between. Drink lots of water (half your weight in ounces). And get out and have some fun; exercise doesn't have to be a boring routine, it can be anything that gets you moving to burn those calories.

> Bill Etchison, MS Columbus, Georgia

10 HEALTH RISKS OF BEING OVERWEIGHT

If you are overweight or obese, you may be at risk for:



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WHY SHOULD YOU DRINK WATER?

For healthy looking skin To lose weight To flush toxins from your body To reduce your risk of heart attack To cushion and lube your joints and muscles To avoid constipation To increase your metabolism To regulate your body temperature To reduce your risk of disease and infection Get well and stay well by drinking plenty of water!

Most of us do not drink the recommended amount of water, so our bodies are not properly hydrated. Find out how many ounces of water your body needs by dividing your weight in half. If you weigh 150 pounds, you need 75 ounces (about 9 eight-ounce glasses) daily. Fill up plastic water bottles or a pitcher with the amount you need. Do this in the morning and drink the water throughout the day. You know you've reached your goal when all the water is gone.

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