



## Planning for Shoulder Arthroscopy



## Getting to Know Your Surgical Team

*Dr. Frangiamore* is fellowship-trained orthopaedic surgeon who specializes in disorders of the shoulder, knee, elbow and all sports-related injuries. As a sports medicine surgeon, he has provided medical care for professional and world-class athletes, serving as a team physician for the Cleveland Guardians baseball organization, and the U.S. Ski and Snowboard Association, Premiere Lacrosse League, and the Premier Soccer League

Dr. Frangiamore has written numerous articles and book chapters related to his extensive research on shoulder, knee and sports-related injuries and surgical management of these conditions; which have earned him several accolades and awards. He has traveled throughout the U.S. and internationally to present his work. Through the use of advanced open and arthroscopic surgical techniques, Dr. Frangiamore focuses on restoring damaged joints, ligaments and bones through minimally invasive techniques to keep his patients active and healthy.



Sal Frangiamore, M.D.

## How does the Normal Shoulder Work?

The shoulder joint has the largest range of motion out of all the joints in the body. This flexibility allows you to hit a backhand swing in tennis or stretch to reach something on a top shelf. The shoulder also helps you position your hands for movements.



# "ball" (humeral head) "socket" (glenoid)

#### Glenohumeral joint (Ball and Socket of Shoulder)

- a tee.

#### Shoulder capsule

The joint is surrounded by bands of tissue called ligaments. They form a capsule that holds the joint together. The undersurface of the capsule is lined by a thin membrane called the synovium. It produces synovial fluid that lubricates the shoulder joint. It can become inflamed and is a very common source of shoulder pain.

### The should consists of 3 bones

- Shoulder blade (scapula)
- Collar bone (clavicle)
- Upper arm bone (humerus)

• Commonly called the shoulder joint, the glenohumeral joint helps you move your shoulder forward and backward. It also enables your arm to rotate in a circular manner or move outward.

#### One way of picturing this joint is to think of a golf ball on

• The head of your upper arm bone (golf ball) fits into a rounded socket (tee) in your shoulder blade. This socket is called the glenoid. A slippery tissue called articular cartilage covers the surface of the ball and the socket. It creates a smooth, frictionless surface that helps the bones glide easily across each other.

• The glenoid (golf tee) is ringed by strong fibrous cartilage called the labrum. The labrum forms a gasket around the socket, adds stability, and cushions the joint.



#### **Rotator cuff**

- Four tendons surround the shoulder capsule and help keep your arm bone centered in your shoulder socket. This thick tendon material is called the rotator cuff. The rotator cuff covers the head of the humerus and attaches it to your shoulder blade.
- It acts to keep the ball centered in the socket and provides the strength to lift your arm above your head.

#### Bursa

- There is a lubricating jelly like sac called a bursa between the rotator cuff and the bone on top of your shoulder (acromion). The bursa helps the rotator cuff tendons glide smoothly when you move your arm and protects the soft rotator cuff tissue from the sometimes rigid and acromion bone.
- The bursae can become inflamed and cause significant pain that radiates down your arm into your elbow.



#### Acromioclavicular joint and Sternoclavicular joint

- The acromioclavicular joint (blue arrow) is located between your shoulder blade (acromion) and your collar bone (clavicle).
- The sternoclavicular joint is another joint in this region that isn't part of the shoulder joint, but is a bridge between the upper extremity and the back of the rib cage (thorax)

## What is Arthroscopy?

Arthroscopic surgery is a minimally invasive surgical procedure performed through small incisions to visualize and treat ligament, tendon, cartilage or meniscal injuries that occur within the joint.



The word arthroscopy comes from two Greek words, "arthro" (joint) and "skopein" (to look). The term literally means "to look within the joint" or operations in a less invasive manner.

Using an arthroscope, Dr. Frangiamore makes a small incision in the patient's skin and then inserts pencil-sized instruments that contain a small lens and lighting system to magnify and illuminate the structures inside the joint. Light is transmitted through fiber optics to the end of the arthroscope that is inserted into the joint.

By attaching the arthroscope to a miniature television camera, Dr. Frangiamore is able to see the interior of the joint through this very small incision rather than a large incision needed for surgery. This is a great way for surgeons to view the cartilage, ligaments, and other areas that might need repair. When indicated, corrective surgery is performed with specially-designed instruments that are inserted into the joint through accessory incisions.

Because the surgery is performed through small incisions, patients experience a quicker recovery, with less post-operative pain. Patients also are able to return home sooner-often the day of the procedure.

After arthroscopic surgery, the small incisions will be covered with a dressing. You will be moved from the operating room to a recovery room. Many patients need little or no pain medications.

Before being discharged, you will be given instructions about care for your incisions, what activities you should avoid, and which exercises you should do to aid your recovery. During the follow-up visit, the surgeon will inspect your incisions; remove sutures, if present; and discuss your rehabilitation program.

The amount of surgery required and recovery time will depend on the complexity of your problem. Occasionally, during arthroscopy, the surgeon may discover that the injury or disease cannot be treated adequately with arthroscopy alone. The extensive "open" surgery may be performed while you are still anesthetized, or at a later date after you have discussed the findings with your surgeon.

### What are the potential benefits of arthroscopic surgery?

- Less pain following the procedure
- Lower risk of complications
- Shorter hospital stay
- Out-patient surgery option
- Quicker recovery
- Less scarring

## Types of conditions that Dr. Frangiamore manages with arthroscopic surgery include:



#### **Shoulder Impingement** Syndrome

The acromion irritates the bursae, causing inflammation between the rotator cuff and the bone of the acromion

**Rotator Cuff Tendon Tears** 

The rotator cuff tendon tears off

the attachment on the humerus

Glenoid (golf tee) labrum









rim intact

Stiff shoulder due to inflammation and scar tissue forming throughout the shoulder

Visit sportsmed.org/AOSSMIMIS/Members/Patient/Surgical\_Animations/ **Members/Patient/Surgical\_Animations** to see surgical animations of many of these procedures

## Your Arthroscopic Shoulder Surgery

- Almost all arthroscopic surgery is done on an outpatient basis. Dr. Frangiamore's administrator will contact you about the specific details for your surgery. You will be asked to arrive at the hospital an hour or two prior to your surgery. You will go through the standard preoperative routine as outlined previously mentioned.
- Once in the operating room, you will be positioned so that your surgeon can easily adjust the arthroscope to have a clear view of the inside of your shoulder. The two most common patient positions for arthroscopic shoulder surgery are:
- **Beach chair position** = This is a semi-seated position similar to sitting in a reclining chair
- Lateral decubitus position = This position the patient lies on his or her side on an operating table.
- Each position has some slight advantages. Position will be based on the procedure being performed
- Once you are positioned, the surgical team will remove hair, if needed, and then spread an antiseptic solution over your shoulder to clean the skin. They will cover your shoulder and arm with sterile drapes, and will most likely place your forearm in a holding device to ensure your arm stays still

## **Expectations After Arthroscopic Surgery**

- Although arthroscopy can be used to treat many problems, you may have some activity limitations even after recovery. The outcome of your surgery will often be determined by the degree of injury or damage found in your knee or shoulder, which is difficult to assess prior to surgery.
- Sometimes, especially when you have preexisting cartilage damage, your outcome will be influenced • If your job involves heavy work, such as a SIGNFICANTLY by your rehabilitation and recovery, construction laborer, you may require more time and you may be advised to find a low-impact to return to your job than if you have a sedentary alternative form of exercise. office job.
- Physical exercise and rehabilitation will play an important role in your final outcome. A formal physical therapy program also may add something to your final result.

Ultimately, you are responsible for adhering to the rehabilitation protocol. Your ultimate satisfaction after surgery will depend on your dedication to your rehabilitation regimen. It will be worth it in the end and will give you the best chance for you to return to the active lifestyle you desire!

- Dr. Frangiamore will first inject fluid to inflate the joint. This makes it easier to see all the structures of vour shoulder through the arthroscope. Then he will make a small puncture in your shoulder (about the size of a buttonhole) for the arthroscope. Fluid flows through the arthroscope to keep the view clear and control any bleeding. Images from the arthroscope are projected on the video screen showing the inside of your shoulder and any damage.
- Once the problem is clearly identified, your surgeon will insert other small instruments through separate incisions to repair it. Specialized instruments are used for tasks like shaving, cutting, grasping, suture passing, and knot tying. In many cases, special devices
- are used to anchor stitches into bone. Incisions will be closed with stitches that are resorbable or ones that will be removed at your first post operative visit.
- At the conclusion of your surgery, the surgeon may close your incisions with a suture or paper tape and cover them a water proof dressing.
- You will then be moved to the recovery room. Usually, you will be ready to go home in one or two hours. You should have someone with you to drive you home. Please see the post operative instruction section for more details.
- It is reasonable to expect that by 4 months post operatively, you should be able to engage in most of your former physical activities as long as they do not involve significant high impact activities. Your post operative rehabilitation protocol, will guide you through this and should be followed at the discretion of your treating therapist.