

DMC® Orthopaedics and Sports Medicine



— A Patient's Guide to —
SHOULDER ARTHROSCOPY

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Welcome

Injury to your shoulder may prevent you from engaging in physical activity and may impair your ability to perform day to day tasks. At DMC Orthopaedics and Sports Medicine, it is our objective to provide you with the confidence you need to make your comeback. Our experience allows you to trust our ability to provide you with a successful outcome.

The DMC Orthopaedics and Sports Medicine team understands the complexity of your injury, and will provide you with collaborative efforts to address all of your needs. Our expertise extends beyond surgical and rehabilitative care. We have specialized programs designed to help you return to your previous level of function, as well as meet individual wellness goals.

Thank you for allowing us to participate in your care. We will guide you each step of your recovery, to ensure you receive maximum improvement from your surgery.



Orthopedic Surgery

DIANA R. SILAS, DO

Dr. Silas believes in looking at the whole body and a detailed patient history to assess injury and come up with a customized plan. The overall structure of the patient is crucial to their function. She realizes every patient presents a different challenge and no two injuries are exactly the same in every case. She loves being able to educate her patients and develop an individualized treatment plan right along side them. Her practice is centered around joint preserving procedures and treatments that can prevent or extend the need for total joint surgery.

Dr. Silas was born and raised in Metro Detroit and has a big heart for keeping her community active. When Dr. Silas is not seeing patients or in the operating room, she enjoys spending time with her family, traveling and fitness. She loves being active both in the gym and outdoors. As a former collegiate athlete, sports have always been a very big part of her non-work life as well.

The Shoulder

The shoulder is made up of 3 joints: sternoclavicular (SC), acromioclavicular (AC), and glenohumeral. The glenohumeral joint is the "ball and socket" joint, where the ball (head of the humerus) meets with a shallow socket (the glenoid, a portion of the scapula) to allow for mobility of the joint. Stability of this mobile joint is achieved through contributions from the rotator cuff muscles, the labrum, the capsule, and ligaments. The SC and AC joints also assist in providing stability to the glenohumeral joint. Injuries to any of these structures may cause pain, limit motion and decrease the ability to perform functional tasks.

The **acromion** is the top part of the shoulder blade.

The **rotator cuff** is a group of muscles and tendons that attach the arm bone to the shoulder blade and help the shoulder move.

The **humeral head** is the top part of the arm bone. It's shaped like a ball and rests against the shoulder socket.

The **cartilage** is the smooth covering on the ends of the bones. It acts like a cushion, allowing the bones to move without pain.

Humerus (arm bone)

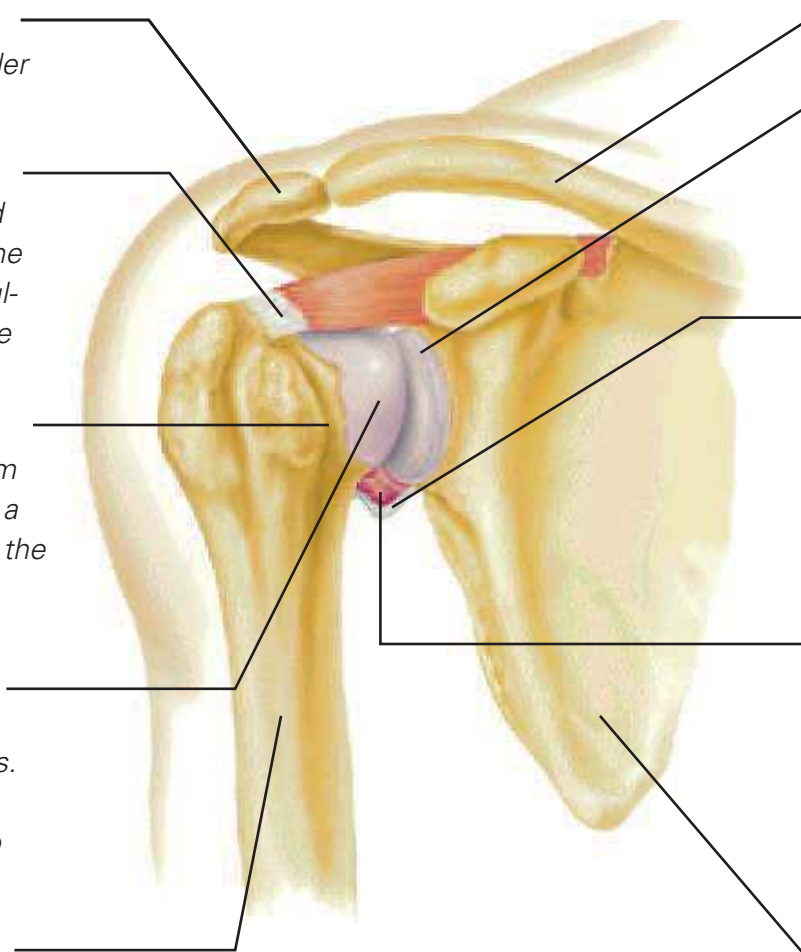
Clavicle (collarbone)

The **glenoid** is the shallow socket that forms a crucial for the head of the arm bone.

The **capsule** is a sheet of fibers that surrounds the joint. It is tough enough to keep the joint stable, yet flexible enough to allow it to move freely.

The **synovium** lines the capsule and produces a fluid that lubricates the joint and keeps the ends of the bones from rubbing.

Scapula
(Shoulder blade)



PROBLEMS IN THE SHOULDER

Acromioclavicular (AC) Joint Sprain: The AC joint connects the acromion to the clavicle and is stabilized by ligaments. Injury to this joint may disrupt one or more of these ligaments. This injury is often referred to as a shoulder separation.

Adhesive Capsulitis (Frozen Shoulder): The capsule, a soft tissue restraint surrounding the shoulder joint, may become inflamed and stiff, severely limiting motion and causing pain.

Bony Defects: The normal wear and tear of life may eventually damage the cartilage, the material that covers the surface of bones in healthy joints. When the cartilage softens or tears, it may cause pain, reduce available motion within the joint and limit function.

Bankart Lesion – The labral attachment at the anteroinferior aspect of the glenoid becomes detached due to an impaction fracture. Often associated with an anterior shoulder dislocation.

Hill Sachs Lesion – A compression fracture of the posterior aspect of the humeral head, often a result of recurrent anterior shoulder dislocation.

Glenohumeral Dislocation/Subluxation: Due to the great amount of motion at the glenohumeral joint, it can be vulnerable to episodes of instability. When a shoulder dislocates (the humerus comes out of the “socket”), it may stay out of place and require emergency medical care, or may sublux, briefly separate and relocate on its own. Dislocations and subluxations can happen anteriorly, posteriorly, or inferiorly.

Instability: This syndrome can be a result of trauma or overuse, where the shoulder becomes loose. Insufficient stability may allow the head of the humerus to repeatedly come out of the “socket”.

Labral Tear: The labrum is a cartilage ring around the socket that seals the joint and provides stability. Separation, or tearing, of the labrum may cause pain, stiffness, catching or locking of the joint.

SLAP tear – Commonly used to describe a labral tear that occurs at the superior labrum, in an anterior to posterior direction.

Bankart Lesion – Damage to the anterior portion of the labrum, often due to an anterior shoulder dislocation.

Loose Bodies: Pieces of torn cartilage or bone may float around in the shoulder joint and cause locking or pain with certain movements.

Subacromial Impingement: Repetitive motion at the shoulder may cause the tendons of the rotator cuff muscles to become inflamed. These tendons pass under the acromion, a prominence off of the scapula, and may cause irritation of the subacromial bursa. Often impingement causes discomfort with overhead and behind the back movements.

Rotator Cuff Tear: The four rotator cuff muscles provide the shoulder joint with stability and strength. One or more of the tendons of these muscles may sustain a tear as a result of a traumatic injury, aging, or repetitive stress.

Problems In The Shoulder *continued...*

Proximal Biceps Tendonitis: Irritation or inflammation at the biceps tendon may occur as a product of overuse, most often to due overhead activities.

SHOULDER TREATMENT

Shoulder surgery encompasses a variety of techniques. Some procedures are able to be performed with less-invasive arthroscopic techniques, while others require open procedures for better visualization of involved tissues. Common procedures performed to address shoulder injuries include the following:

Shoulder Arthroscopy: A minimally-invasive surgical tool used to look inside the shoulder joint to gain diagnostic information and perform surgical techniques. Small incisions are used to place an arthroscope (a camera) and surgical instruments inside the shoulder. Arthroscopic techniques that are most commonly performed during shoulder surgery include:

Acromioplasty/Subacromial Decompression: A motorized burr is used to remove a small portion of bone from the acromion that may be placing increased pressure on the rotator cuff tendons. The subacromial bursa and inflamed scar-like tissue that is symptomatic and restricting motion is also removed.

Synovectomy: Inflamed tissue that does not resolve with conservative treatment can be resected to restore motion and improve pain.

Bone Spur/Loose Body Removal: Removal of pieces of cartilage and debris within the joint may resolve locking and pain, and restore the shoulder's mobility.

Distal Clavicle Excision: The end of the clavicle, where it articulates with the acromion, is removed to allow normal and pain-free mobility.

Labral Repair/Debridement: Symptomatic labral tears can be addressed in multiple ways during surgery. Based on the characteristics of the tear, the surgeon will decide the best procedure to use. The labrum may be debrided (remove the damaged tissue only) or repaired.

Capsular Plication/Capsulorrhaphy: Shoulder instability can sometimes be resolved by performing a technique that tightens the capsule.

Rotator Cuff Repair: Torn tendons are repaired, by being secured back to the bone with suture anchors, a small screw that has a suture through it. The screw is inserted into the bone, and the suture is then passed through the torn tendon and tied to anchor the tendon to the bone.

Soft Tissue Reconstruction: Unreparable tears in the capsule or tendons in the shoulder may be eligible for a procedure that uses cadaver tissue to improve stability and integrity of the joint. At times these procedures are not able to be conducted with isolated arthroscopic techniques and may require an open approach. Long-term results of these complex clinical situations are not available, however. Short-term outcomes are promising.

Some techniques that may be employed to address your shoulder injury require an open approach. These procedures include:

Latarjet: In the instance of recurrent anterior shoulder dislocations, a prominence of the scapula (corocoid) and its muscular attachments are transferred from their normal anatomical position, to the front of the glenoid. The transfer of bone during this procedure blocks the shoulder from being able to dislocate, therefore improving overall joint stability.

AC Joint Reconstruction: Tearing of multiple ligaments may cause the AC joint to become unstable, requiring a reconstructive surgery. Using pins, plates, screws, sutures, and/or graft tissue (cadaver), the joint can be reinforced to provide a durable fixation.

Biceps Tenodesis: The long head biceps tendon is detached from its anatomical origination at the superior labrum, and reattached in a lower position, on the humerus.

Risks Associated with Shoulder Surgery

Hearing about the risks of surgery can be scary. Please rest assured that we exercise every possible precaution to make sure that your surgical risks are minimized. If you have specific questions regarding the risks of your surgery, please discuss them with your medical team.

STIFFNESS

Following any surgical procedure, the body's natural healing response may develop scar tissue that can limit motion. This can often be addressed with non-surgical options, but at times there is a need for a follow-up procedure to improve mobility.

INFECTION

As with any surgery, there is a risk of infection. Inspect the incisions and the area around your incisions daily and notify your surgeon if you notice any of the following signs and symptoms:

- Increased redness, swelling or pain at the incision site or surrounding areas.
- Increase in drainage or yellow/green drainage.
- An odor.
- A fever greater than 101° F (or surrounding skin that is increasingly hot to touch).

BLOOD CLOTS

Restricted mobility following surgery may cause a decrease in blood flow and allow blood to coagulate in the veins of your legs, creating a blood clot. It is important to routinely perform ankle pumps to minimize the risk. Please let your surgeon know before surgery if you or a family member has a history of blood clots or clotting disorders, if you take oral contraceptives (birth control pills) or if you have a significant history of tobacco use.

Risks Associated with Shoulder Surgery continued...

Signs of blood clots: Swelling in the thigh, calf, or ankle that does not go down (especially overnight). Increased pain, tenderness, redness or warmth in calf, or calf pain with ankle pumps. If you notice these symptoms call your physician, or go to the nearest emergency department immediately.

BLEEDING

Although shoulder surgery is minimally invasive, bleeding during surgery is common. Patients may experience some bloody drainage from their incisions. This should not prompt concern. Please call your surgeon if you notice heavy bleeding that soaks through multiple dressings.

NERVE DAMAGE

Numbness in the area around your incisions is very common. Small nerve branches that produce sensation may be injured with surgery and temporarily cause the area to lose feeling. Injuries to the major nerves that control arm function are, fortunately, very rare.

RISKS OF ANESTHESIA

You will receive general anesthesia for your surgery, and will be given the option of receiving a regional nerve block as well. The benefit of the nerve block is post-operative pain relief for up to 24 hours following surgery. Your anesthesiologist will discuss risks of general anesthesia and the nerve block with you on the day of your surgery.

How Do I Prepare for Surgery

PRE-OPERATIVE APPOINTMENTS

To schedule your shoulder surgery, your surgeon's office will provide you with a surgery date, surgery instructions, and schedule a post-operative follow-up appointment.

Prior to your surgery date, your surgeon may request that you attend a pre-operative evaluation. During this time, your potential surgical plan will be reviewed with you. We encourage you to ask questions to ensure that you fully understand your injury, surgery, and the extent of post-operative care.

You will be contacted by Huron Valley Sinai Hospital for surgical prescreening within 5 days of your surgery. You **MUST** be available by phone to go through the prescreening process with the nurse, or your surgery could be delayed. If you have not completed this call within 3 days of your surgery, please call **248-937-3394**.

If your surgery is associated with a **worker's compensation claim or motor vehicle accident**, please make the office aware at the time you schedule. Please provide all paperwork that needs to be completed to your surgeon's office. This paperwork will not be completed until after your surgery is performed. The length of time you will be out of work will vary depending on the type of work you do and the procedures that were performed during your surgery. Follow-up paperwork must also be given to your surgeon's office to be completed.

QUIT TOBACCO USE

Research has shown the use of any tobacco product inhibits bone healing and may delay or prevent your bones from healing properly after surgery. It is strongly recommended that you quit the use of tobacco products at least 2 weeks before your surgery. If you would like help or advice, please call the Michigan Tobacco Quitline at **1-800-Quit-Now** (1-800-784-8669).

STOP NSAIDS

7 days prior to surgery you must **STOP** taking any non-steroidal anti-inflammatories (NSAIDs) such as ibuprofen (Advil, Motrin), Naproxen (Naprosyn, Aleve) or Indomethacin (Indocin). Please read all over-the-counter medications before taking them, as some contain NSAIDs (ie; cold medicines).

24 Hours Before Surgery

After 3:00 pm the day before your surgery, you will receive a call from Huron Valley Sinai Hospital informing you of the arrival time for your surgery and final instructions. If you have questions after you receive the call, please call **248-937-3402**.

Do not eat or drink anything after midnight the night before surgery. This includes (but is not limited to) candy, gum, mints, water, coffee and juice. Failure to comply with these instructions may lead to a delay or cancellation of your surgery.

- If you need to take essential medications on the morning of your surgery, you may take your pills with a small sip of water.
- You may brush your teeth the morning of surgery, just do not swallow the water.

24 Hours Before Surgery *continued...*

WHAT SHOULD YOU BRING FOR YOUR SURGERY?

Please be sure to bring your Driver's License/Photo ID, and medical insurance cards. Be sure to wear loose clothing that you will be comfortable in after your surgery.

Do not bring make-up, piercings, jewelry, money, credit cards, or any other personal valuables. We are not responsible for lost or stolen property.

The Day of Surgery

When you arrive at the hospital you will be taken to the pre-operative area where your surgeon(s) and anesthesiology team will meet with you to discuss the surgical plan. Nurses will start an IV and may give you medication to help you relax.

You may be given the option to undergo a regional nerve block before your surgery to help control the pain you have immediately following surgery. The benefit of this nerve block is increased comfort and decreased use of narcotic pain medication.

You will be wheeled on your bed to the operating room, where the anesthesiologist will administer general anesthesia. Throughout your surgery, you will be constantly monitored to evaluate your breathing and heart rate. When the surgery is complete, you will be moved to the post-anesthesia care unit (PACU). The nurses and anesthesiology team will make sure you are comfortable. Your family members will be brought in to visit you when you wake up. When you are awake and alert with controlled pain, you will be discharged to go home.

CARING FOR YOURSELF AT HOME

Pain Control: You will be given narcotic pain medication to take home with you. Use these medications as instructed when needed for pain. This pain medication also has Tylenol in it. Do not take additional Tylenol without first discussing with your surgeon. Pain medication may cause constipation, so remember to drink plenty of fluids, eat a high fiber diet and, if needed, use stool softening medications as directed.

Regional anesthesia involves placing long acting numbing medicine into the nerve that provides sensation to the surgical area. This can substantially reduce post-operative pain and facilitate early rehabilitation. Please discuss options for regional anesthesia with your surgeon to determine which is right for you. If you receive a nerve block, please do not remove your sling until it wears off (at least 24 hours), as your injured arm may feel numb and/or weak.

Other ways to help reduce your pain include motion as directed by your physical therapist/athletic trainer, changing your position, and icing.

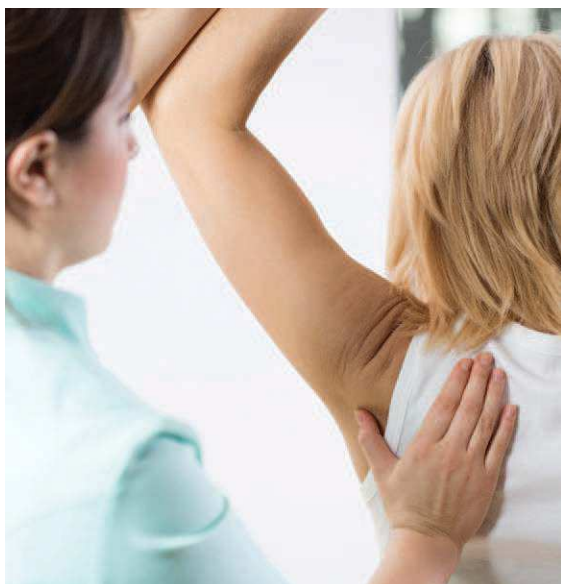
Shoulder Dressing/Incision Care: You may remove your dressing 48 hours after surgery. You do not need to apply a new bandage, but may want to cover your stitches with Band-Aids to prevent them from catching on your clothing. Your stitches will be removed approximately 7-10 days following surgery. Do not apply any lotion, cream or antibiotic ointment to your incision.

Bathing: 48 hours after surgery, once you have removed your bandage, you may shower. You may not soak or submerge your incision for 2 weeks after surgery. In the first few days, you may take a sponge bath, but careful not to get your incisions wet.

Driving: While it is not illegal in Michigan to drive while wearing a sling, you may be considered temporarily disabled. If you are involved in an automotive incident of any severity, you may be held responsible for damages, regardless of fault. You absolutely may not drive a motorized vehicle if you are taking narcotic pain medication.

School/Work: Returning back to work greatly varies on the demands of your job. Your surgeon may provide you with restrictions from work, or limitations while at work, for anywhere from 1-6 months. It is recommended you wait a minimum of 5-7 days to return to school, or work, if you work a sedentary job.

Icing: Until you have no pain, soreness, warmth or swelling, you should be icing frequently (at least 4 times) throughout the day. Avoid chemical ice packs, as they may cause frost-bite and skin irritation. Crushed ice in a well-sealed bag or bags of frozen peas work well.



Post-operative Rehabilitation Program

You will begin formal rehabilitation at an outpatient clinic after your first post-operative appointment. The rehabilitation program will be designed for you and your specific surgery. You will attend therapy until you have returned to all activities you would like to do, with approval from your surgeon.

Post-operative Rehabilitation Program *continued...*

Maximizing recovery after shoulder surgery requires several things: protection of your healing tissue, a gradual return of range of motion and strength, resolution of swelling, and restoration of functional abilities. **You may begin your recovery program as soon as you feel able, unless you have been otherwise directed by your surgeon.** A physical therapist/athletic trainer will review your program with you at your first outpatient post-operative rehabilitation appointment. It is best to have thoroughly reviewed and practiced this program PRIOR to your surgery. It is very important that you complete your program with perseverance and consistency in order to optimize your recovery.

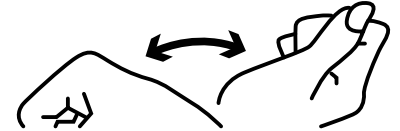
The following exercises are to be performed **3 to 4 times per day** immediately following your surgery. You may feel some discomfort while performing some of the exercises, but as you perform the exercises your pain should lessen. **If you are not sure you are performing the exercises properly, or if you are experiencing increased pain during or immediately after you do them, stop the exercises until you consult with your physical therapist or athletic trainer.**

Exercises

Wrist Flexion/Extension:

- Slowly bend your wrist back and forth as far as you are able.
- Repeat 30 times.

Perform 3-4 times/day.

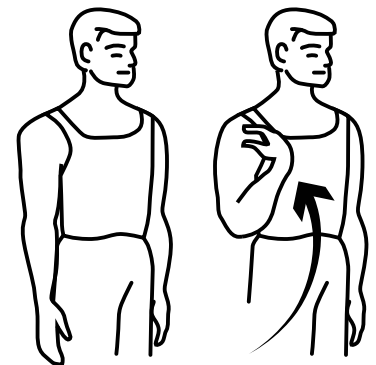


Elbow Flexion/Extension:

(Remember: You may not take your sling off for 24 hours after surgery. Do not perform this exercise until then)

- With your sling removed and your elbow by your side, **use your uninjured arm** to bend your elbow up as far as you can comfortably. Then slowly lower your hand down to straighten your elbow out all the way.
- Repeat 30 times.

Perform 3-4 times/day.



Gripping:

- Squeeze a ball, or just make a fist to maintain good circulation through your arm.
- Repeat 30 times.

Perform frequently throughout the day (5+ times).

Sling Use

Immediately after surgery you will be required to wear a sling **at all times** (including while you are sleeping). The duration of time you will need to wear the sling, and the type of sling you will be given, will be dependent on the type of procedure that was performed. When it is time to wear out of your sling, your physical therapist/athletic trainer will help you.

*You may NOT take off your sling within 24 hours following surgery.

Beginning 24 hours after surgery, you may take off your sling when:

- **Performing your rehabilitation exercises.**
- **Showering:** Keep your arm relaxed, with your elbow straight and by your side.
Do not try to use your arm
- **Getting Dressed:** Over-sized t-shirts, or shirts that zipper/button are easiest to put on and take off after surgery.

Bending forward at your waist, letting your arm hang like an elephant's trunk, is a **"safe position"** for your shoulder. Use this safe position to get dressed. You may want to sit if you feel off balance.

- *To put shirt on:* with your elbow straight, slide the sleeve over your surgical arm and up to your shoulder. **Do not try to help with your surgical arm.** Pull your shirt up over your head, using your uninjured arm. Lastly, slide your uninjured arm in its sleeve.
- *To take shirt off:* reach to the back of your neck and gather the shirt with your uninjured hand. Tilt your chin to your chest and pull the shirt over your head. Pull the uninjured arm out of the sleeve, then use that arm to slide the shirt off your uninjured arm.

Follow Up Appointments

- **2-5 days** after your surgery you will attend your first outpatient rehabilitation appointment with an outpatient rehabilitation center.
- **7-10 days** after surgery you will follow up with your surgeon. She will discuss with you your recovery and outline a functional return to your previous level of activities.

Depending on your progress and what type of surgery was performed, you may attend additional follow-ups with your surgeon.

- **3 months and/or 5-6 months** after your surgery you may follow up again with your surgeon to monitor your progress and ensure you have no concerns, and are on your way to returning to the activities you enjoy.
- **6 through 12 months** after your surgery you are encouraged to continue following a home exercise program to maintain the strength and functional gains acquired during your physical therapy visits.

When to Call Us

Please call our office [248-489-4410](tel:248-489-4410) or [248-937-4947](tel:248-937-4947) if you experience any of the following:

- Signs of infection (fever, chills, pus/increased drainage from the incision, redness, abnormal swelling).
- Increasing numbness, weakness or tingling in your arm.
- Change in bowel or bladder control.
- Increased pain that isn't responsive to rest, ice, prescribed medications and physical therapy.

Orthopedic After Hours: Please call our office and you will be directed to the after-hours on call physician.

Helpful Links/Resources

www.dmcmedicalgroup.com

www.aaos.org

Important Addresses and Phone Numbers

SHOULDER SURGERY TEAM:



Diana R Silas, DO

Medical Specialties: Arthroscopy and Minimally Invasive Treatments, Hip/Knee Shoulder/Elbow Arthroscopy, Ligament Repair and Reconstruction, Joint Preservation, Biologic Joint Reconstruction, Total Shoulder and Reverse Shoulder Replacement, Orthopedic Trauma/Injuries

LOCATIONS:



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