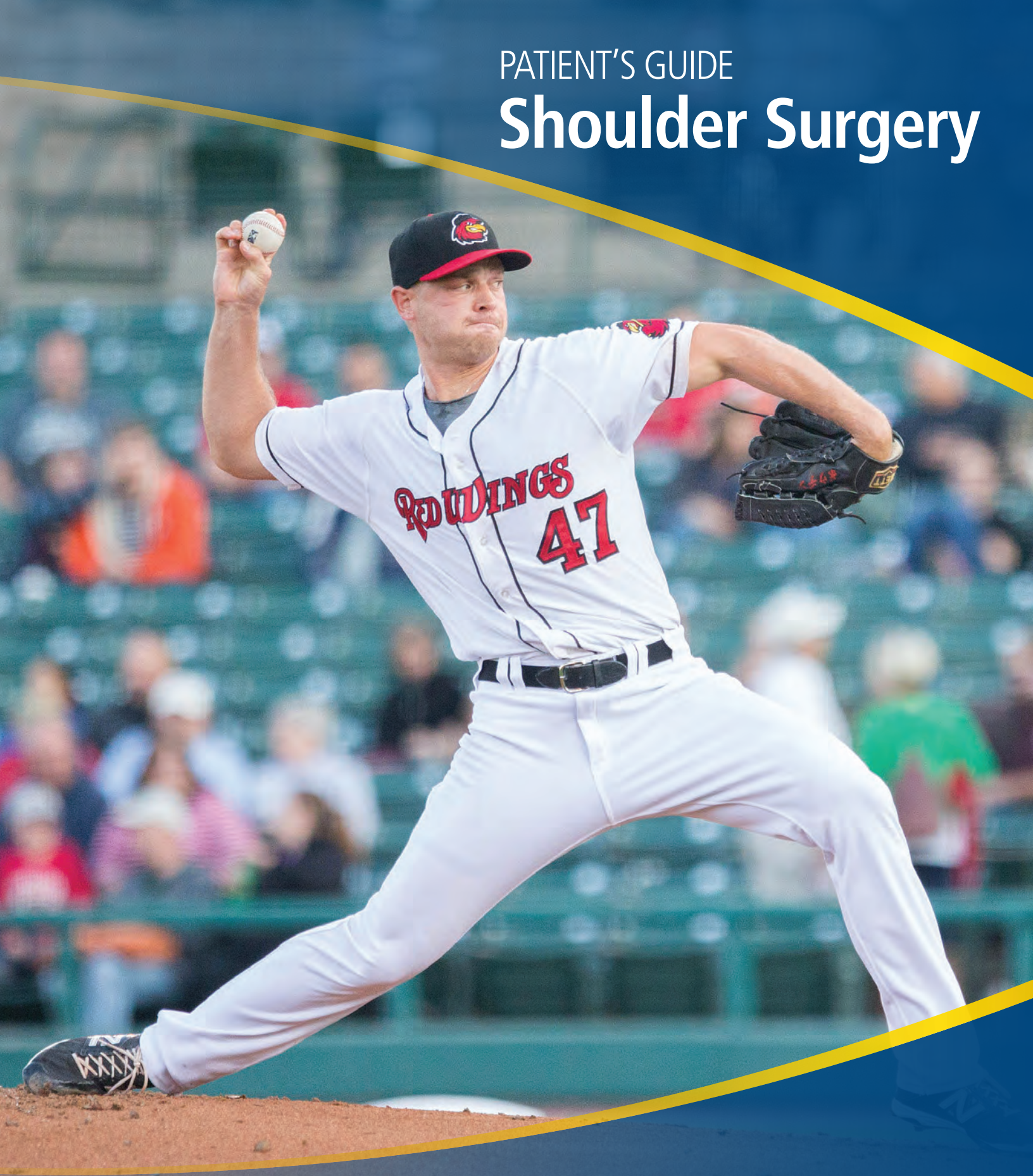
PATIENT'S GUIDE

Shoulder Surgery



MEDICINE *of* THE HIGHEST ORDER

UR MEDICINE | Orthopaedics & Rehabilitation

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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 UR 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 UR 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.

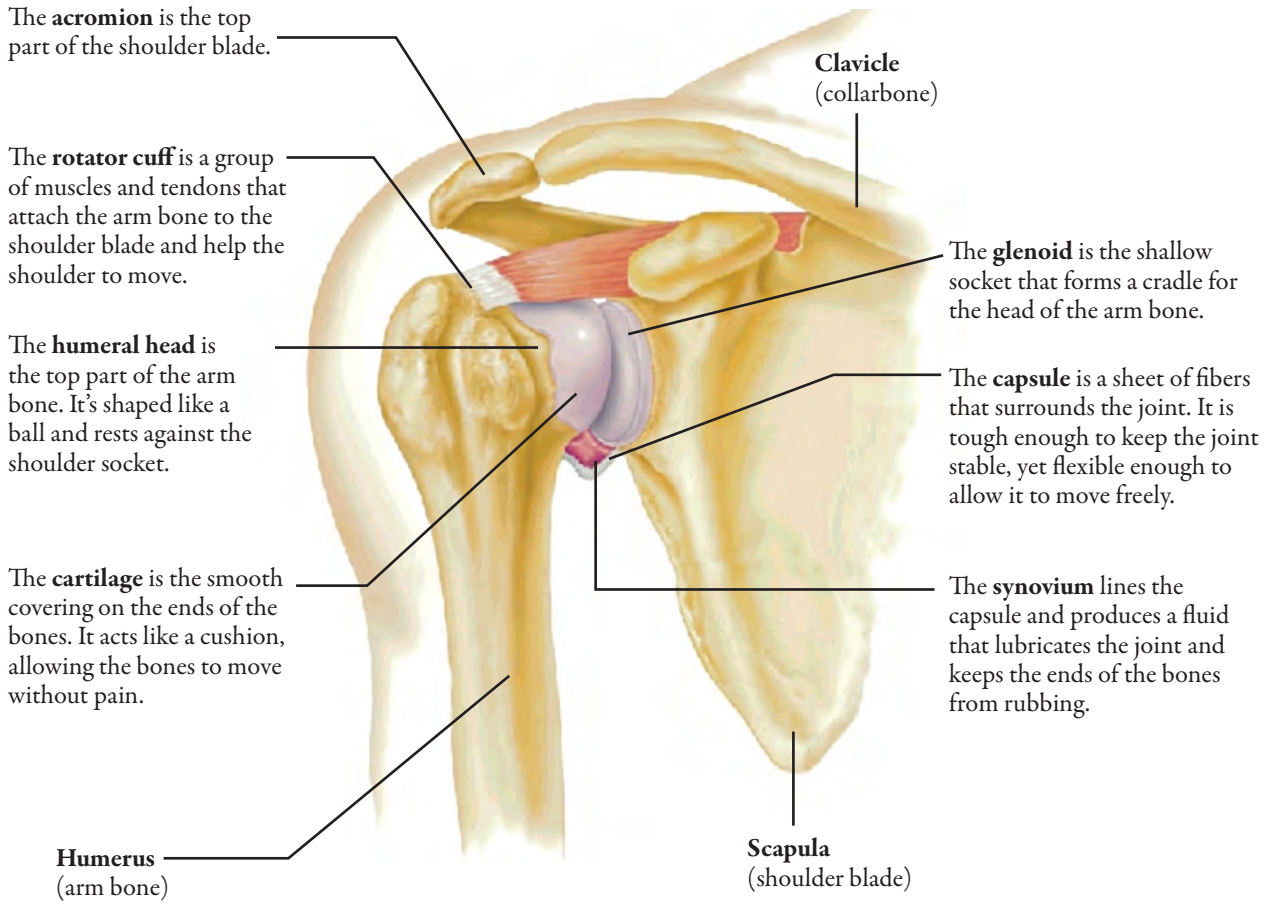
Thank you for allowing us to participate in your care. We will guide you each step of your recovery, to ensure you receive maximum improvement from your surgery.

Be sure to sign up for MyChart so you can view test results, contact your doctors, and more. Visit mychart.urmc.rochester.edu.

Table of Contents

The Shoulder

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



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. This can cause severely limited motion and pain.

Bony Defects: Episodes of instability or trauma may cause damage to the glenoid or humeral head.

> ***Bony Bankart Lesion*** **-** The labral attachment at the anteroinferior aspect of the glenoid becomes detached. This is 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 disclocation.

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 it 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. Labral injuries may be a result of a traumatic injury, or due to repetitive stress over time.

> ***SLAP tear*** **-** Commonly used to describe a labral tear that occurs at the superior labrum and involves the attachment of the biceps tendon.
>
> ***Bankart Lesion*** **-** Damage to the anterior-inferior 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. These symptoms may occur 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. Impingement often 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 these tendons may tear as a result of a traumatic injury, aging or repetitive stress.

Proximal Biceps Tendonitis: Irritation or inflammation where the biceps tendon originates in the shoulder, may occur as a product of overuse. This is commonly related to overhead activities.

Shoulder Treatment

Shoulder surgery encompasses a variety of techniques. Some procedures can be performed with less-invasive (arthroscopic) techniques, while others require open procedures, to allow direct visualization of the tissues involved. Some common procedures performed to address shoulder injuries include:

Shoulder Arthroscopy is a minimally-invasive surgical tool used to look inside the shoulder joint to provide a diagnosis 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 restricting motion is also removed.

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

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

Distal Clavicle Excision: Cartilage irregularities at the end of the clavicle, where it articulates with the acromion, is smoothed with a burr to improve pain and mobility.

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

Capsular Plication/Capsulorraphy: 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, small screws that have sutures through them. 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: Unrepairable 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 (coracoid) 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 (cadaver) tissue, 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.
- An odor, increase in drainage, or yellow/green drainage.
- A fever greater than 101° F.

Blood Clots

Restricted mobility following surgery may cause the blood to slow and coagulate in the veins of your arms, creating a blood clot. It is important to routinely perform your rehabilitation exercises 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 have a significant history of tobacco use.

Signs of Blood Clots:

- Increased pain, tenderness, redness or warmth in the arm.
- Swelling in the upper or lower arm that does not go down (especially overnight).
- Shortness of breath, or difficult breathing.

If you notice these symptoms call your physician or go to the nearest Emergency Department immediately.

Bleeding

Bleeding during surgery is common—even with minimally invasive procedures. 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, you will be directed to call your physician's office at your convenience. You will be provided with a surgery date, surgery instructions and a date for a post-operative follow-up appointment.

Your surgeon may require you to attend a pre-operative rehabilitation evaluation at UR Medicine's Sports and Spine Rehabilitation. Please call 585-341-9150 to schedule this appointment at any of the four locations (Brighton, Penfield, Greece, Brockport).

You will be contacted by Sawgrass Surgery Center for surgical prescreening within 3 days of scheduling 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 5 days of scheduling surgery, please call 585-242-1408.

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 mail or fax all paperwork that needs to be completed to your surgeon's office at the time your surgery is scheduled. 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 mailed or faxed to your surgeon's office to be completed. It should not be brought with you to your follow-up appointments.

Quit Tobacco Use

Research has shown that the use of any tobacco product inhibits healing and may delay or prevent your body 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 New York State Smokers' Quitline at 1-866-NY-QUITS (1-866-697-8487).

Stop NSAIDs/Aspirin/Supplements

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). You also may need to stop taking Aspirin or any herbal supplements. This should be discussed with your surgeon. Please read all over-the-counter medications before taking them, as some contain these substances (i.e. cold medicines).

24 Hours Before Surgery

After 2:00 pm on the day before your surgery, you will receive a call from Sawgrass Surgery Center informing you of the arrival time for your surgery and final instructions. If you do not receive this call by 5:00 pm, please call 585-242-1401.

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 cancellation of your surgery, due to the risk of pulmonary aspiration, a potentially fatal complication.

- 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.

What should you bring to the surgery center?

Please be sure to bring Driver's License/Photo ID and medical insurance cards. Be sure to pack an oversized t-shirt, button-down, or zip-up shirt that you will be comfortable in after your surgery. You will not be allowed to drive yourself home after surgery, so please make sure you bring someone to drive you.

Do not bring make-up, piercings, jewelry, money, credit cards or any other personal valuables. Sawgrass Surgery Center is not responsible for lost or stolen property.

The Day of Surgery

When you arrive at the surgery center 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.

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 the nerve block wears off (at least 24 hours), as your injured arm may feel numb and/or weak.

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 may be given narcotic pain medication to take home with you. Use this medication as instructed when needed for pain. This pain medication may have Tylenol in it. Please discuss with your surgeon before taking additional Tylenol. 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.

Other ways to help reduce your pain include motion as directed by your physical therapist/athletic trainer, changing your position and icing. Please remember these are general recommendations. You should always follow instructions provided to you by your surgeon.

Shoulder Dressing/Incision Care: You may remove your dressing 48-72 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 2-5 days following surgery. Do not apply any lotion, cream or antibiotic ointment to your incision.

Bathing: Once you have removed your bandage, you may shower. You may ***not*** soak or submerge your incision for 2-3 weeks after surgery. In the first few days, you may take a sponge bath, but be careful not to get your incisions wet.

Driving: While it is not illegal in New York State 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 may not drive a motorized vehicle if you are taking narcotic pain medication.

School/Work: Returning back to work varies greatly depending 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 your shoulder frequently (at least four times) throughout the day. Avoid chemical ice packs, as they may cause frostbite and skin irritation. Crushed ice in a well-sealed bag or bags of frozen peas work well.

Post-operative Rehabilitation Program

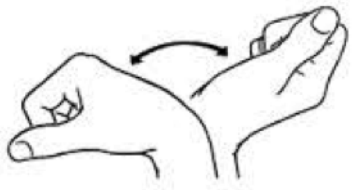
A member of our rehabilitation staff will be available at Sawgrass Surgery Center to go over your post-operative exercise program, explain your sling/immobilizer, and answer questions you may have about your function. He or she will also help facilitate scheduling for your post-operative therapy appointments, as recommended by your surgeon. You will begin formal rehabilitation at our outpatient clinic **2-5 days** after surgery. The rehabilitation program will be designed for you and your specific surgery. All restrictions will be reviewed with you at the surgery center and at your first rehabilitation appointment. You will attend therapy until you have returned to all activities you would like to participate in, with approval from your surgeon.

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 rehabilitation 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 pre-operative appointment and again 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

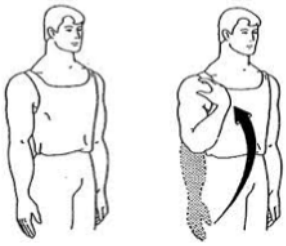
Wrist Flexion/Extension:



- 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 depend on the type of procedure that was performed. When it is time to wean 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 into 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 neck 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 injured arm.

Follow Up Appointments

- **2-5 days** after your surgery you will attend your first outpatient rehabilitation appointment with UR Medicine's Sports and Spine Rehabilitation program.
- **2-4 weeks** after your surgery you will follow up with your surgeon and/or a physician assistant. They will discuss 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, to ensure you have no concerns, and to make sure you are 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.

Note: follow-up schedules for individual surgeons may vary.

When to Call Us

Please call your surgeon's office 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 is not responsive to prescribed medications and modalities.

Orthopaedics After Hours: (585) 275-5321.

Important Addresses and Phone Numbers

Dr. Ilya Voloshin ..... (585) 276-3106

Dr. Robert D. Bronstein ..... (585) 275-1024

Dr. Brian D. Giordano ..... (585) 242-1327

Dr. John P. Goldblatt ..... (585) 275-6888

Dr. Michael D. Maloney ..... (585) 242-1430

Dr. Gregg T. Nicandri ..... (585) 276-4874

Rehabilitation and MD Locations

BRIGHTON
Clinton Crossings
4901 Lac de Ville, Bldg. D
Rochester, NY 14618
(585) 341-9150

GREECE
South Pointe Landing
10 South Pointe Landing
Rochester, NY 14606
(585) 225-6296

BROCKPORT
Strong West
156 West Avenue
Brockport, NY 14420
(585) 637-0329

PENFIELD
Platinum Office Building
2064 Fairport Nine Mile Road
Penfield, NY 14526
(585) 851-0700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