What to expect when you have Shoulder Instability Surgery

Patient Guide
Introduction:

The glenohumeral (shoulder) joint is made up of the head of the humerus, or upper arm bone, and the scapula, or shoulder blade. The bony anatomy does not provide much stability; thus, the shoulder relies on adjacent structures to keep the bones from shifting abnormally during normal daily activities. These structures include the muscles of the rotator cuff, the capsule and ligaments that surround the joint, as well as the labrum, which is a fibrous ring that encircles the socket side of the joint. Injuries or insufficient function of any of these structures can lead to shoulder instability. With shoulder instability, the joint has motion that is in excess of normal and is associated with pain and dysfunction.

Shoulder instability can be due to a number of factors. Some people have joints that have excess laxity (i.e. “loose jointed”) and experience symptoms of instability when the muscles fatigue or do not keep the ball centered in the socket when performing activities. Shoulder instability can also occur following trauma, such as a fall on an outstretched arm, a traction injury, or an actual dislocation.
The signs and symptoms of shoulder instability may include:

- A feeling that the joint is shifting abnormally with certain motions. The positions that elicit symptoms depends on what structures are injured.
- Pain within the shoulder joint, though pain can be felt in the front, back, or in the axilla (armpit region)
- Numbness, tingling, or weakness in the hand or forearm
- Increased or abnormal clicking, catching, or grinding of shoulder
- Decreased range of motion or painful range of motion

The approach to treatment of shoulder instability depends on a number of factors, including but not limited to cause of instability (e.g. traumatic or atraumatic), patient age and activity demands, duration of symptoms, and extent of injury to different structures. Your sports medicine specialist will help guide you through the decision-making process, tailoring a treatment that is most likely to provide long-term benefit. Nonoperative treatment is often an option, and these treatments include activity modification, oral or topical anti-inflammatory medication, and physical therapy.

If these fail to improve your symptoms, or in other unique circumstances, surgical treatment may be recommended. There are a number of surgical options for shoulder instability surgery that are dependent on: size of labrum tear, location of labrum tear, possible fracture or other bony injury. Other factors, such as activity demands, hand-dominance, age, and general health are also considered when discussing surgical intervention.

Surgical treatment of labrum tears is most often performed arthroscopically, where your surgeon will use multiple small incisions to place a fiberoptic camera and instruments into the shoulder joint to repair the damaged structures. During this time, other potential injuries can be addressed as well. Certain injuries may benefit more from an open surgical approach. Your surgeon will review with you any associated injuries identified on exam or by MRI and discuss whether this influences the overall treatment plan.
Pre-operative Rehabilitation:

Many patients will undergo a course of physical therapy prior to surgery. After initial injury, you may have swelling, weakness, limited range of motion and pain. These symptoms will interfere with usual function pre-operatively and may lead to less desirable post-operative outcomes if not addressed. “Prehab” can help optimize outcomes of surgery by strategically addressing the aforementioned symptoms and optimizing function.

Signs that you may benefit from prehab include:

- Inability to lift arm through normal range of motion either due to pain or strength
- Inability to perform sport or typical day to day activities without pain
- Increased swelling
- Inability to bear weight through the upper extremity

Your physical therapist (PT) will devise a tailored program to assist in decreasing your symptoms prior to surgery. Depending on your week to week progress a pre-hab program may last 2-4 weeks with sessions occurring 2-3 times each week and may include:

**Modalities:** treatments may include the use of ultrasound, neuromuscular stimulation devices, cryo- and/or thermo- therapy (ice or heat). These modalities will assist in reducing swelling and pain, and improve range of motion and muscle activation.

**Range of motion:** your PT will teach and perform techniques that will help you regain motion of your shoulder. For several weeks you will be limited in how you are allowed to move your shoulder after surgery. For this reason, gaining as much tolerable range of motion prior to surgery may help improve losses afterwards.

**Strength:** following injury, strength and atrophy of shoulder musculature are rapid due to pain, swelling and limitations in use. A full grade of muscle loss can be lost in only 2 days with a typical time of 2 weeks to regain half of that back. Going into surgery as strong as possible will only benefit your recovery. Strengthening activities may
include exercises called isometrics where muscles of the shoulder are able to contract within range of motion constraints. During this time it also very important to maintain or even gain strength of the scapular stabilizers, elbow flexors and extensors (biceps and triceps), as well as, the muscles involved with grip. Having a strong base of stabilization is paramount for maintaining the integrity of repair.

Precautions and joint protection education: following surgery it will be imperative to follow proper joint protection protocols and precautions. You will be given a sling and possibly a sling pillow and/or shoulder stabilization brace following surgery to be worn for 4-6 weeks. Your PT will be knowledgeable on how to manage these for day to day life as well as how to proceed with your movement precautions through each phase of rehabilitation.
Tips to prepare for your shoulder instability/labrum surgery

Start practicing one to two weeks prior to the operation as though you only have one hand (the non-injured). Use this hand for every-day use such as eating, dressing, grooming — just about everything you do. You will not have full use of your operative arm since it will be immobile for 4-6 weeks.

The following is a list of suggestions that may make your life easier after surgery. If you are living with friends or family, please discuss with them their availability to help you during the first 4-6 weeks after surgery. If you live alone, these recommendations will be of greater importance to help you achieve independence:

1. Clothing:
   a. Shirts – You may want to cut approximately 4 short-sleeve shirts in half starting at the shirt tail seam and continuing up and through the sleeve on the side of the injured arm. This is necessary to accommodate the pillow strapped under your arm to abduct the shoulder (that is, move arm away from body). You will need the T-shirt to absorb any body sweat so that the pillow remains clean and dry. The half-cut shirt looks ragged, but gives you some appearance of being dressed. The general rule of thumb is “first on, last off” the affected extremity (that is, put the sleeve all the way on your surgically repaired arm, then slip your uninjured arm in your shirt). Women may begin wearing undergarments as soon as you are comfortable wearing them.

   b. Shoes – It can be difficult to tie shoelaces, so plan on wearing loafers, Velcro, or loosely-tied shoes that may be slipped on and off easily.

   c. Shorts/Pants – It will be difficult to zipper, button or snap pants closed at the waist. Elastic waist shorts/pants are easier to manage with one arm.

2. Driving: You will not be able to drive while you are wearing a sling. The duration of sling use will be determined and discussed at your first post-operative visit, but typically ranges from 4-6 weeks. Please anticipate any errands or other responsibilities that you may take care of before your surgery.
3. **Grooming:** Get your haircut, clip your nails before surgery. Practice simple hygiene tasks such as applying deodorant, shaving, brushing teeth, etc.

4. **Food:** Stock up on food that is easy to prepare. Buy soft foods that are easy to cut with one hand.

5. **Telephone:** Phones with a speaker phone or Bluetooth option will allow you to keep one hand free for writing and other use.

6. **Sleeping:** Patients with shoulder problems are often already aware of the problems they have finding a position of comfort at night. Many patients feel better sleeping in a semi-reclined position. If you are unable to sleep comfortably, options include propping pillows in your bed, using a wedge pillow, or sleeping in a reclining chair.

7. **Sling Immobilizer:** It is helpful to obtain your sling pre-operatively whenever possible. This will give time to ensure appropriate fit and positioning of the sling. It also gives you the opportunity to familiarize yourself with donning and doffing the sling.
Day of surgery:

When you are planning your trip to the surgical center, be sure to wear a loose-fitted shirt, which will be easy to reapply post-operatively. A button-down shirt may be preferable. Typically, you will arrive 1-2 hours prior to surgery time to meet with a pre-operative nurse who will start preparations by placing an IV on your opposite arm and clean the operative shoulder. Your surgeon will also see you to address any questions or concerns.

The anesthesiologist will perform a nerve block preoperatively, which reduces pain immediately after the surgery greatly. You will have a general anesthetic as well for your surgery. The surgical procedure can take 1-2 hours, depending on the amount of work needed to repair damaged structures. When you awake from surgery you will have a sling, and often a cold therapy pad (cryocuff) that will connect to a cooler and helps with icing the shoulder by circulating cool water through the cuff.

First 24 hours post-operative:

You may feel drowsy for the first several hours after surgery, so try to get as much rest as possible. It is recommended that you stay ahead of your pain by following you pain medication prescription and by icing for 30-40 minutes every 1-2 hours. The pain after shoulder surgery can be moderate to severe when the nerve block wears off. We recommend you stay ahead of the pain as best as possible, using a combination of prescription and non-prescription medications as recommended by your surgeon. Cold therapy helps reduce pain significantly and should be used often, particularly in the first 24-48 hours after surgery. Pain medication can cause constipation and other side effects. Discuss these side effects with your doctor or pharmacist and have a plan in place if you experience any of the adverse effects. As mentioned above, sleeping in a semi-reclined position is often better tolerated than trying to sleep flat.
Rehabilitation:

Physical therapy and rehabilitation will progress in phases. Phase I of rehabilitation is much like your pre-hab was. The first goals are decreasing pain, increasing range of motion and initiating low levels of strength. Your surgeon and therapist will consider several variables, such as size of the tear, quality of the tendon tissue, as well as associated injury/procedures with your rotator cuff injury. It is important that during the whole rehabilitation process that you listen to your body and your therapist who is directing your care. You may choose to take your pain medication or any types of medication that the doctor prescribed for you at least 45 minutes before your scheduled appointment. That allows for the medication to be effective and for physical therapists to get the most out of your shoulder during that hour or so of your appointment.

Recovery Phase 1:
Passive and Active-Assist Motion, 0-6 weeks post-operative

This is a maximum-protection phase. The first phase of recovery involves passive and active-assist motion. Passive motion means the muscles around the shoulder girdle are not doing any work. Active-assist motion involves some muscle activation but devices, such as a pulley, can be used to help you move your arm. Your physical therapist will review these techniques with you. You may start to feel relatively well early in this phase, but it is important to respect the restrictions your surgeon and physical therapist recommend so that you do not overstress the repair while initial healing occurs.
Recovery Phase 2:
Active and Active-Assist Motion, 6-12 weeks post-operative

Your sling will be removed at the start of this phase. You can expect therapy 2-3 times per week during this phase. Active and Active-Assist motion begin once there is sufficient healing of the tendons to allow them to start moving the arm, but before extra-resistance is applied. There are techniques to provide assistance to active motion (active-assist), such as walking your hand up a wall, using a cane, or a pulley to help elevate your arm.

Recovery Phase 3:
Strengthening

Significant weakness can occur due to pain limiting activity before surgery, as well as the 10-12 weeks of limited activity following surgery. Once the repair is adequately healed, a process that can take 12 weeks, it is important to begin strengthening the muscles to allow you to resume your normal activity. A skilled therapist can instruct you on techniques to isolate the proper muscles for strengthening.
Recovery Phase 4: Full Activity

Full recovery after shoulder surgery often takes 4-6 months, and in some cases longer. Maximum improvement may not be obtained until up to 9-12 months. Your surgeon and therapist will guide you in terms of returning to vocational and recreational activities. Once you are released to full activity, it is important to continue with many of the strengthening exercises you learned from your physical therapist. This helps maintain good shoulder health, using the muscles appropriately to stabilize your shoulder. As you are nearing discharge from your physical therapy program, discuss with your therapist a home exercise protocol you can continue on your own.

Things to expect:

• Return to sports will vary on the sport that you participate in and the level of that participation
• Return to sports will vary from starting the return at the 4 or 6-month post-operative time frame
• There are published protocols established by Hartford HealthCare Rehabilitation Network for each individual sport and we will progress you as we see fit to your return to sport
• We have available a bridge program that will return you to your sport once you have completed your physical therapy that is allowed by insurance
Functional testing:

A series of specialized evaluations that are implanted at key points throughout your recovery. These evaluations will look at strength, range of motion, movement, balance, and your ability to generate power or forces throughout your body. These key measurements were designed to better you as a whole individual and help in reducing your body’s risk of injury and promote a safe and effective return to function and to sport.

A few of our tools that help us with functional testing include state of the art strength testing equipment, a 3D motion capture system that helps us look at your body performing a specific movement such as a golf swing, throwing a baseball, running or hopping, as well as force plates which allow us to see how much power or force your body can create. Gathering this information from the motion lab helps the team decide the best treatment plan and to optimize your outcome and your performance.

Treating the whole athlete:

Hartford Healthcare Sports Medicine Specialists believe there is more to your treatment than the shoulder. We have specialists in Behavioral Health and Sports Nutrition to help optimize your recovery as well.
Behavioral health:

There is a newly emerging theme in the scientific literature on recovery from an injury regarding athlete’s mindset toward recovery. Some of these findings indicate that lack of psychological readiness to return to sport may contribute to risk of re-injury. Recovery from a shoulder injury can be challenging for athletes for a variety of reasons. As such, behavioral health services can assist throughout an athlete’s recovery from a hip arthroscopy via the following:

- Normalize an athlete’s emotional response to injury via supportive discussion.
- Teach skills to cope with emotional distress associated with recovery pre- and post-surgery.
- Provide collaborative care to assist athlete in navigating pain sensations through different phases of care.
- Educate family and supports to best assist athlete in psychologically recovery from injury.

Sports nutrition:

Nutrition is one method which may counter the negative impact of exercise induced injury. The field of nutrition support for exercise induced injury is a newly emerging topic in the scientific literature. It is clear that deficiencies in energy (calories), protein and other nutrients should be avoided. While somewhat obvious and intuitive the current literature concerning proper nutrition is extensive but the evidence remains unclear as to its specifics.

Energy expenditure for athletes during sport is significant. After injury the level of exercise decreases significantly and with it a decrease in energy expenditure. However, the stress of surgery and the healing process does increase energy expenditure by as much as 15% to 50% depending on the type and severity injury over baseline levels.

For instance, when on crutches the energy needed to move around is 2-3x higher than walking without them. Protein is the most prominent nutrient analyzed for nutrition support for injuries. Reduction in protein intake is detrimental to muscle metabolism. A great starting point for athletes is consuming at least 1.6 gram/kilograms of athlete’s bodyweight of protein to maintain protein synthesis following the injury.
Careful evaluation of the athlete’s situation and injury with nutritional services from a registered dietitian can assist throughout an athlete’s recovery via the following:

• Assessment of energy intake and avoiding energy deficit.

• Assessment of overall protein intake as well as bioavailability of sources.

• Provide individualized care to assist athlete with individualization of nutritional needs based on religious/cultural dietary needs, dietary eating style (vegetarian, etc.), food allergies and more.

• Advise to limit (exclude) variety of nutrients which may delay healing process (ex. alcohol).

• Educate family to best support athlete with nutritional needs to recovery from injury.

• Assist athletes with meal preparation and meal ideas which meets energy and protein needs with use of food processing database software.
We are here to help.

The Bone & Joint Institute Sports Medicine Specialists are here to help you become not only as good, but better than you were before your injury.

Call for a referral to one of our:
- Orthopedic Surgeons
- Physical Therapists
- Athletic Trainers
- Strength & Conditioning Specialists
- Sports Psychologists
- Sports Neurologists
- Sports Cardiologists
- Sports Dentists
- Integrative Medicine Providers
- Sports Nutritionists
- Biomechanists

Functional testing available:
Golf swing, tennis, throwing, running, and vocational training

Our Team of Experienced Providers
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