



**DUKE UNIVERSITY SHOULDER REHABILITATION**

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**PRE-OP INFORMATION FOR TOTAL SHOULDER ARTHROPLASTY  
(ANATOMIC AND REVERSE)**

**1. Tasks to be completed prior to surgery**

	Pre-operative appointment in clinic with physician or PA.  Date _____
	Get sling for surgery to bring to the hospital with you
	Pre-operative visit at the hospital versus phone screen  This will be scheduled after a surgery date has been picked and scheduled. You will get a call about scheduling this appointment within 30 days of your surgery date  Date _____
	Imaging-CT scan, MRI This is used by your surgeon for surgical planning  Date _____
	Discharge planning: <ul style="list-style-type: none"> <li>• Home with support for the first 2 weeks after surgery to assist with daily activities and recovery?</li> <li>• Home with home health?</li> <li>• Skilled nursing facility/rehab?</li> </ul>
	Schedule post-operative physical therapy appointment – begins 5-7 days after surgery
	Schedule ~2 week post-operative appointment(s) with physician assistant or athletic trainer
	Schedule pre-operative physical therapy appointment/education session (optional) – can be a telehealth appointment
	No dental procedures 2 weeks prior to surgery or 2 months after surgery  You will be recommended to take antibiotic for preventing infection for procedures (not routine cleanings) after any joint replacement surgery

## Preparing for recovery at home following surgery

- a. **Assistance:** Who will stay with you/assist after surgery? You will need someone for 1-2 weeks after surgery to help personal and household tasks. A lot requires two hands!
- b. **Environment:** Put frequently used items at waist level so you don't have to reach or stoop. To prevent falls, remove trip hazards (rugs) and add night lights.
- c. **Clothes:** Plan for loose-fitting clothing that is easy to stretch. Button-up shirts are helpful, as are stretch pants/shorts since you will not have two hands to pull up. There are custom shirts for shoulder surgeries available online as well.
- d. **Sleeping:** Patients after this surgery report sleeping best with a recliner or armchair to allow for sleeping in a semi-reclined position
- e. **Recovery area:** Make sure all of your recovery essentials are within reach-phone, remote, tissues, post-operative medications, etc...
- f. **Meal preparation:** Planning ahead of time to have meals that can be easily reheated is recommended. Small, frequent meals with adequate protein are essential for promoting healing.
- g. **Dependent care:** If you have children, parents, spouses, or pets that require special care, lifting, or medication use, make sure that they have assistance as well.
- h. **Driving:** Most patients can return to driving 4-6 weeks after surgery.
- i. **Ice:** Have a freezer with plenty of ice or ice packs. If you are using the polar cube, you can freeze 10-12 mini water bottles (8 ounces) that can be used in the polar cube as your ice and can be refrozen after they have melted.  
**Homemade ice pack:** In double bagged gallon sized ziplock bag, freeze 6 cups of water with 2 cups of alcohol. This can be reused each time you want to apply ice.
- j. **Medications to stop:** This will be discussed with you at your pre-operative appointment. Medications that are typically changed/stopped include blood thinners, steroids, immunotherapy medications, anti-inflammatories, and vitamins/supplements
- k. **Over the counter medications to have available prior to surgery**
  - Aspirin
  - Acetaminophen (Tylenol)
  - Anti-inflammatories (Ibuprofen, Motrin, Advil, Naproxen, Aleve)
  - Stool Softener-patient choice-Senokot, MiraLAX, etc.
- l. **Medications that will be prescribed**
  - Pain medication-Oxycodone, Hydrocodone, Tramadol
  - Anti-Nausea medication-Zofran, Phenergan
  - Gabapentin-medication for nerve pain or secondary pain medication
  - DVT prophylaxis-Aspirin 81 mg (baby Aspirin), Lovenox, Eliquis, or others

## 2. Post-operative Visits

- a. 2 weeks post-op-xrays taken, staples/stitches removed, incision check (with PA or ATC)
- b. 6 weeks post-op- xrays taken, assess progress with physical therapy (with surgeon)
- c. 3 months post-op- xrays taken, assess return to work
- d. 6 months post-op- xrays taken, assess return to work/sport
- e. 1 year post-op- xrays taken

## 3. Physical Therapy

- usually started between 5-7 days after surgery
- You will usually go to physical therapy once a week (but as determined by your evaluation with your physical therapist individually)
- Daily exercises can begin after your nerve block wears off
- Physical therapy is typically continued for 3-4 months

## 4. Multimodal pain management

At Duke, we strive to provide pain management following surgery by using a variety of pain treatments and pain prevention techniques. We start from the top of the list below and gradually add additional pain management as needed. As you can see, *we rely on narcotic pain medication the least and that is the first thing that we want to stop using as soon as possible*. We anticipate most patients will not regularly need narcotic pain medication after the first week, but all patients are different and care plans are individualized.

- a. Nerve block-This will be administered at the time of surgery by your anesthesia team. There are different types of nerve blocks, but the Exparil block being used primarily can last for **up to** 2-3 days. Other options are available to discuss with the anesthesia team. You will not have full control of your arm during the nerve block. This is normal. Everyone recovers from the nerve block at different rates and numbness and tingling could be present to the hand for an extended period of time.
- b. Ice/Cryotherapy-This should be used if you are in pain and to prevent pain and inflammation. Polar cubes, or ice machines, are regularly used in post-operative pain management. This can be used for 20 minutes at a time every hour. The

more you use it the first 2 weeks, the better. Please keep a cloth between your skin and the pad of the polar cube or ice pack. You should change the position of the pad/straps to check on skin and prevent skin irritation from the ice and from the straps of the ice machine (especially when you can't feel your arm with the nerve block). Allow your skin to return to normal temperature occasionally. Regularly check skin for signs of frostbite.

- c. Rest/elevation-a sling was provided for you and your arm should be able to rest comfortable in it to provide support for the shoulder and arm. You should not feel that you are having to hold up your shoulder or tighten your muscles of the shoulder.
- d. Tylenol is an over-the-counter pain medication that we recommend using for baseline pain. This should be taken regularly for the first two weeks and it is typically the last pain medication to be stopped if pain is under control.
- e. Anti-inflammatories can be used to decrease pain and inflammation in patients if they are able to take these. There are medications and other health reasons why patients cannot take anti-inflammatories, so make sure to check with your physician.
- f. Narcotic pain medication-These are prescribed to be used in the short-term immediate post-operative period. The goal of narcotics/pain medication in general is to **reduce** pain and make it manageable; it is unlikely to take away all of your pain. As soon as your pain begins to improve, reduce the amount (number of pills at a time) and frequency (how often you are taking the medication) until you can stop taking them altogether.

**This chart below has a list of medications that may be used after your surgery and their uses**

Medication	Other names	Instructions	Reason	Use
NSAIDs (anti-inflammatory medications – you should only use <b>ONE</b> of these options)	Ibuprofen, Advil, Motrin,	800 mg 3 times a day (every 8 hours)	Pain and inflammation	As needed
	Aleve, Naproxen	440 mg twice a day	Pain and inflammation	As needed
	Meloxicam	7.5-15 mg once a day	Pain and inflammation	As needed
Acetaminophen	Tylenol	1,000 mg 3 times a day (every 8 hours)	Pain	Scheduled (take regularly if you are having pain or not)
Gabapentin	Neurontin	Dosing varies	Pain/ Nerve pain	As directed
Pregabalin	Lyrica			
Zofran		4 mg Take every 6 hours as needed	Nausea/ vomiting	As needed
Senokot	Senna	8.6 mg once daily	Constipation	As needed
Aspirin		81 mg	Post-operative blood clot prevention	28 days after surgery
Narcotics	Hydrocodone/ acetaminophen	5-325 mg Take 1-2 tabs every 4-6 hours as needed for pain.	Pain	As needed
	Oxycodone	5 mg Take 1-2 tabs every 4-6 hours as needed for pain.	Pain	As needed
	Tramadol	50 mg Take 1 tablet every 4-6 hours as needed for pain.	Pain	As needed

**Sling:** Your sling should be used at all times for the first 2 weeks. The sling should be snug and support the arm from the elbow to the wrist.

Your elbow should rest comfortably in the back pocket of the sling. Some people feel there is a small space in the corner of the sling and are more comfortable with a small cloth in the corner for better support.

Abduction pillow-The front edge of the pillow should line up with the center of the body. Use a landmark like the belly button, center of the chest, or chin for guidance. Use of this pillow is optional for patients with **reverse total shoulder arthroplasty**.

Neck strap: Adjust the neck strap using the tab near the neck on the opposite side, not near the brace itself.

Thumb strap: optional. Please be cautious with thumb strap while you have limited feeling to the hand as it can cause rubbing/blister

Your forearm should rest comfortably in the sling in a horizontal position (parallel to the floor)

When in recliner/bed/chair:

Place a pillow under the forearm to ensure your forearm stays parallel to the floor

Place a pillow behind the upper arm to support and protect the shoulder. Always **AVOID** the arm going behind the body



**Expectations for recovery:** By 3-4 months after surgery, Patients can reach into the 2<sup>nd</sup> cabinet shelf to lift light objects, reach the top of the head and behind the head, and place the hand in the small of the back. This timeframe may be variable depending on the status of the shoulder prior to surgery.

Higher level activity such as golf, swimming, pickleball, return to the gym for light weight training is possible but takes a bit longer. 6 months is customary for full golf swing and swimming.

General wellness such as walking, cycling, hiking etc. can occur much sooner when the surgery incision is well healed, and balance is good.

It is important to realize that a shoulder replacement is not a “normal shoulder” and range of motion will be functional, but not fully restored.

The majority of mobility is restored within the first 3 months and levels off by 6 months. Strength and function will continue to improve for a full year and even beyond.

### General Timeline of Recovery

	Goals	Work
Days 1-3	Pain management (multimodal) Sling use 24/7 No lifting greater than 2 pounds Sleep semi-reclined Constipation prevention Begin home exercises on handout 3 times a day when nerve block wears off	Out of work until off narcotics and able to comfortably relax the shoulder in the sling.
Weeks 0-2	Pain management-gradually discontinue narcotics as tolerated Sling use 24/7 Physical therapy begins (5-7 days after surgery) Dressing may be removed after 7 days and incision can be cleaned with warm soapy water No lifting greater than 2 pounds	Most patients remain out of work, but some people may return to desk jobs (working from home)
Weeks 2-6	Discontinue sling during the day at home (2 weeks) Reverse-discontinue sling completely (3 weeks) Anatomic-continue nighttime and community sling use (6 weeks) Progress use of arm for normal daily activities	Desk work-may return once able to drive, no lifting greater than 2 pounds
Weeks 6-12	Progress range of motion with proper form Increase use of arm with daily activities	Low/moderate activity-may return to work with limitations of no lifting greater than 10 pounds
Months 3-6	Range of motion continues to progress Progressive strengthening Gradual return to sport/higher level activities	May return to work without restrictions. More labor-intense jobs will take longer to return to
Year 1-2	You will continue to see improvements throughout the 1 <sup>st</sup> year after your replacement.	

## Wound care

Dressing-You were placed in an Aquacel dressing. This is a dressing that can stay in place for one week. It is water resistant so you can shower with the bandage on.

Dressing removal-the bandage is sticky and heat activated. Gently pull/roll down the bandage gradually. Incision may get wet at that time and can be washed with warm, soapy water. Please do not clean with peroxide or alcohol.

No soaking or submerging the incision in water for 3-4 weeks

No ointments or creams on the incision for the first 2 weeks



**Activity:** Activity is good for you after surgery as long as you are stable and low risk for falling. Walking is good for contracting the muscles in your legs and decreasing the risk of blood clots.

No running or activity that will jostle the shoulder

Recumbent bike is allowed if you are stable getting in and out of the seat

No pool- you cannot submerge your incision in water for 3-4 weeks

Post-op exercises\* see below

Begin when the nerve block wears off

**Reference Material:** There are a few videos from Duke University on the following topics that can be found on YouTube. You can also search for videos from other sources in related topics that patients have found beneficial

Sling use-Duke

Polar cube-Duke

Sleep positions-search YouTube for videos from other sources

Dressing/changing clothes-search YouTube for videos from other sources

**\*\*Telehealth or in-person appointment with a physical therapist is available before surgery if you are interested in further information and/or a more personalized discussion, please contact Chelsea Espinoza at [chelesa.espinoza@duke.edu](mailto:chelesa.espinoza@duke.edu)\*\***

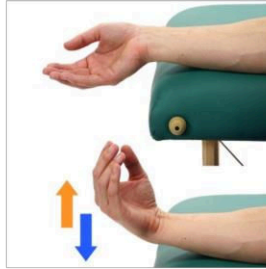


Please begin the following exercises at home when your nerve block wears off. You will remove your sling to do the exercises, and you can apply ice following the exercises for 20 minutes. There should not be more than mild soreness associated with your exercises and no need to pre-medicate.

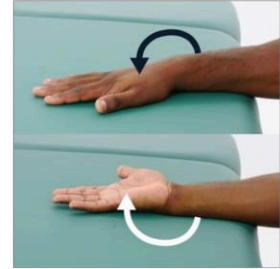
Do each exercise 10 times, and do them 3 times daily



**Grip squeezes:**  
With your arm supported in your sling or resting on a pillow, squeeze a towel or small ball



**Wrist flexion/extension:**  
Move your wrist up and down

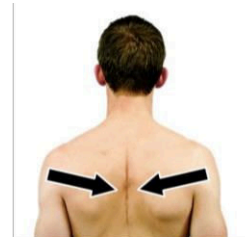


**Pronation/supination:**  
Turn your palm facing up and then palm facing down

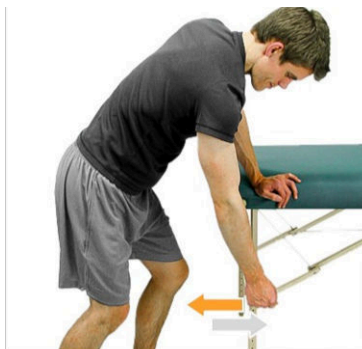
Images:Hep2go.com



**Elbow flexion/extension:**  
Using your non-surgical hand to support your surgical arm, gently bend your elbow then straighten your arm back down



**Scapular retractions:**  
With your arms resting at your sides gently squeeze your shoulder blades together and down. Hold x 3 seconds, then relax.



Hep2go.com

**Pendulums:**  
Support weight on non-operative arm at a countertop and lean slightly forward.

Perform small clockwise and counterclockwise circles with the arm.

Move the arm gently back and forth, and side to side.