STEP-BY-STEP GUIDE TO SHOULDER REPLACEMENT

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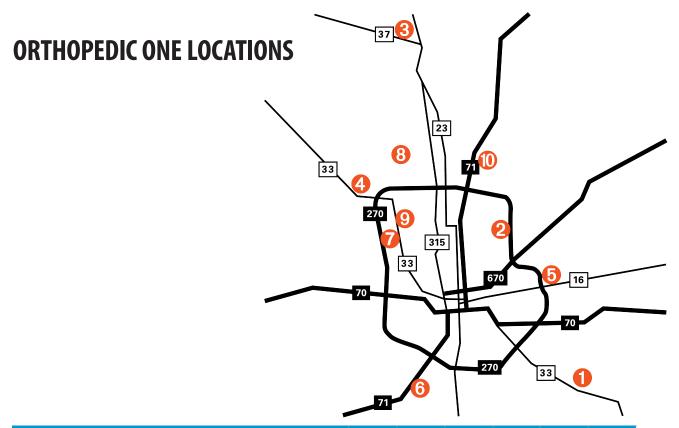
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Additional Information



LOCATION	ADDRESS	PHONE	PHYSICIAN CLINIC	PHYSICAL THERAPY	HAND Therapy	AQUATIC THERAPY	ORTHOTICS	JOINT Therapy
CANAL WINCHEST 7901 Diley Rd. 0	ER Canal Winchester, OH 43110	614.545.7900	1					
2 COLUMBUS – EAST 3600 Stelzer Rd.	FON Columbus, OH 43219	614.827.1300		\				
3 DELAWARE 460 W. Central A	we. Delaware, OH 43015	740.369.8751	 ✓ 	1				
4 DUBLIN 6840 Perimeter I	Dr. Dublin, OH 43016	614.827.8700	 ✓ 	\			<	
5 GAHANNA/REYNO 170 Taylor Statio	LDSBURG n Rd. Columbus, OH 43213	614.545.7900	 ✓ 	 ✓ 	 Image: A start of the start of	1	 ✓ 	
6 GROVE CITY 5500 N. Meadow	vs Dr. Grove City, OH 43123	614.488.1816	 ✓ 	 Image: A start of the start of	 Image: A start of the start of		\checkmark	
7 HILLIARD PHYSICI 3777 Trueman C	AN CLINIC t. Hilliard, OH 43026	614.488.1816	 ✓ 					
HILLIARD PHYSICA 4611 Trueman B	NL THERAPY Ivd. Hilliard, OH 43026	614.340.0683		 ✓ 			<	
8 POWELL PHYSICIA 10330 Sawmill P	IN CLINIC Ikwy. Powell, OH 43065	614.545.7900	 ✓ 					
POWELL PHYSICAI		614.827.8390		 ✓ 				
9 UPPER ARLINGTO		614.827.8700	_	 ✓ 	\	<	\checkmark	
UPPER ARLINGTO		614.827.1050						
10 WESTERVILLE	Ave. Westerville, OH 43082	614.839.2300	<	<	<		<	



Shoulder Replacement Considerations

How a Normal Shoulder Works

The shoulder joint itself is called the Glenohumeral joint. It is a ball and socket joint where the humerus (upper arm bone) and the glenoid (socket) meet. When healthy, the shoulder moves easily absorbing stress and gliding smoothly allowing you to use your shoulder without pain. This is because the joint is covered with slippery, smooth tissue called cartilage and powered by tendons, ligaments and muscles.

Cartilage is a layer of smooth, tissue that covers the end of the humerus (upper arm) and glenoid (socket). When healthy, it absorbs stress and allows the shoulder to rotate easily. Arthritis occurs when the cartilage on the end of the bone wears off.

Ligaments attach to the humerus and scapula holding the joint together and give the shoulder stability. Muscles power the shoulder and give it strength.

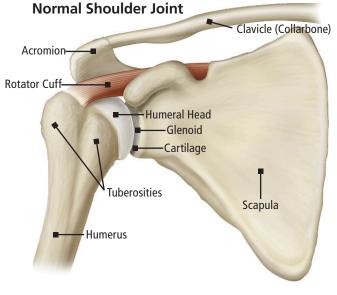
A normal shoulder X-ray shows a space between the humeral head and the glenoid. It also shows the humeral head sitting centered in the glenoid.

Types of Shoulder Arthritis

There are over one hundred types of arthritis which may affect the shoulder joint. The most common include:

Osteoarthritis or Degenerative Joint Disease

is the most common form of arthritis. It is a slow, progressive, degenerative disease in which the smooth cartilage that covers the ends of your bones in your shoulder joint wears down, exposing your bones. As the bones rub against each other, the shoulder joint grinds causing shoulder pain, stiffness, cracking and/or crunching sounds.



Rheumatoid Arthritis (RA) is an inflammatory type of arthritis that can destroy the joint cartilage. RA generally affects both shoulders.

Post-Traumatic Arthritis can develop after an injury to the shoulder. This type of arthritis can develop many years after an injury such as fracture, cartilage tear, and ligament injury.

Rotator Cuff Conditions (Rotator Cuff Tear Arthropathy) can be chronic and be associated with arthritic conditions of the shoulder. These conditions can also result in malalignment of the ball of the upper arm (humeral head) in relationship to the socket (glenoid).

SHOULDER REPLACEMENT CONSIDERATIONS

Symptoms of an Arthritic Shoulder

- Pain with rest and movement of the shoulder
- Pain at night time
- Crepitus (crunching and grinding)
- Stiffness in the shoulder
- Shoulder swelling
- Loss of range of motion

Treatment Options

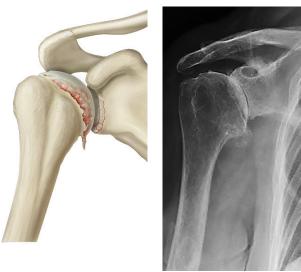
- Rest and Ice
- NSAIDS (Non Steroidal Anti-inflammatory Drugs)
- Tylenol
- Physical/occupational therapy
- Cortisone Injection
- Arthroscopy (shoulder scope) only indicated for very early arthritis

Once a patient has failed non-operative treatment, the next step is a total shoulder arthroplasty. The purpose of shoulder replacement is to relieve pain and restore the ability to maintain independence in daily activities. Your shoulder has become damaged by arthritis or injury which often results in shoulder pain and/or discomfort, stiffness, swelling, weakness and limited motion. It is often difficult to perform simple activities such as dressing or lifting due to joint pain.

Outcomes of a Total Shoulder Replacement

- 90-95% successful in taking away pain.
- On average patients can elevate their arm to about 140 degrees.
- 90% of total shoulders are still in place at 10 years and 85% are still in place at 15 years.
- It can take from three to six months for the shoulder to heal.
- Regaining full strength and range of motion can take up to a year.

Shoulder Joint With Arthritis



Outpatient Vs. Inpatient Surgery

For those who qualify, Orthopedic ONE offers outpatient joint replacement of the shoulder. Traditionally a joint replacement requires a 1-2 night stay in the hospital, but if you are in overall good health, have the right home support system, and if covered under your insurance, an outpatient approach may be right for you.

There are presumed benefits to this approach, but it's important to discuss all of your options with your orthopedic surgeon.

- Ability to recover in the comfort of your own home
- Quicker return to normal activity
- Avoid burden and cost of overnight hospital stay

In most cases, patients are able to return home within 23 hours of surgery, and sometimes as early as 4 hours after surgery. Your surgeon can tell you whether you are a candidate for same-day or outpatient total joint replacement. Regardless of approach, you are in good hands with the total joint team at Orthopedic ONE.

SHOULDER REPLACEMENT CONSIDERATIONS Anatomic Total Shoulder Replacement

Total shoulder replacement is indicated for someone with an arthritic shoulder, that has failed all non-operative treatment and the pain is affecting one's quality of life. Anatomic Total Shoulder Replacement requires intact rotator cuff tendons.

Procedure

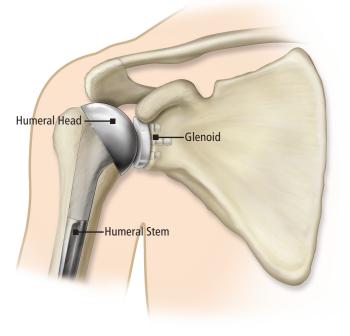
During a total shoulder replacement, the physician has to cut one of the rotator cuff tendons (subscapularis) in the front of your shoulder in order to get into the glenohumeral joint.

Then the humeral head is cut off. A metal rod is placed down the humerus. And a metal ball is placed on top of the metal rod. Next, the physician prepares the glenoid and cements in a plastic glenoid.

After the implant is in place, the physician has to repair the subscapularis tendon. The subscapularis, along with other muscles and tendons, help keep the total shoulder located. Your recovery and restrictions initially after surgery are based off of this tendon healing.

View page 15 to read about the Post-Operative Recovery for Standard Shoulder Replacement.

Shoulder Joint With Anatomic Replacement





Post-Op



SHOULDER REPLACEMENT CONSIDERATIONS Reverse Total Shoulder Replacement

Patients with shoulder joint arthritis who also have a significant tear in their rotator cuff are ideal candidates for a reverse total shoulder replacement. For these patients, progressive weakness and pain has made raising their arm to shoulder height unmanageable. Reversing the natural anatomy of the shoulder stabilizes the joint and compensates for the loss of the rotator cuff. Reverse total shoulder replacement is also performed on patients for whom a previous shoulder replacement did not work, have experienced complex fractures of the shoulder joint, or for chronic shoulder dislocation. A reverse total shoulder can be performed on any shoulder and sometimes there are other life or age circumstances where a reverse total shoulder is preferable to an anatomic shoulder replacement.

Procedure

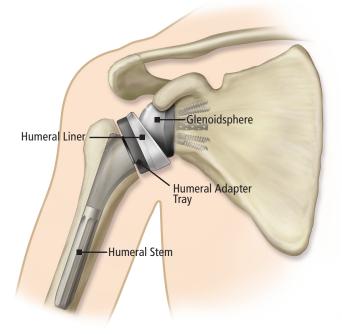
During a reverse total shoulder replacement, the physician has to cut a tendon (subscapularis) in the front of your shoulder in order to get into the glenohumeral joint.

Then the humeral head is cut off. A metal rod is placed down the humerus. The socket is now placed on top of the stem. Next, the physician prepares the glenoid and screws in place, the glenosphere. You now have a ball and socket, however, they are reversed from their normal position.

After a reverse total shoulder replacement, it may not be necessary to repair the subscapularis tendon. In these cases, restrictions following surgery may be less than that of a standard total shoulder replacement. Your surgeon will communicate the outcome and provide guidance on your rehab and recovery.

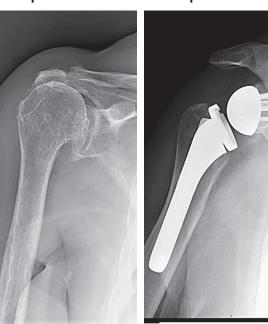
View page 16 to read about the Post-Operative Recovery for Reverse Shoulder Replacement.

Shoulder Joint With Reverse Replacement



Pre-Op

Post-Op





PRE-OPERATIVE CHECK LIST

DAY OF SURGERY CHECK LIST

Photo ID
Insurance cards and any co-payments
Or Medication list
ig] Comfortable, loose fitting clothing, non-skid shoes
Remove all jewelry and cosmetics
Do not bring valuables

2-4 Weeks Prior to Surgery

Pre-Surgery Physical/Occupational

Therapy – Your physician may recommend that you attend a one-time physical/occupational therapy appointment prior to surgery. During this appointment, you will meet one on one with a physical/occupational therapist who will assess your mobility and physical/occupational therapy needs. You will be taught strengthening exercises to prepare your muscles for surgery. Your physical/occupational therapist will discuss equipment you may need at home and provide home safety tips. Caregivers are encouraged to attend this appointment to better assist you at home.

Pre-Admission Testing – Medical clearance is required for surgery. Your pre-admission testing appointment must be completed within 30 days of your surgery to be considered current. Medical clearance may be done with your Primary Care Physician or at select hospitals. Pre-admission testing will include a medical history and physical exam, blood work (Hemoglobin A1c for diabetics), EKG, and possible X-ray.

Items to Bring to Pre-Admission Testing Appointment:

- Insurance Cards and Photo Id
- List of Current Medications Detailed list of your current medications, including dosage and frequency. Include respiratory inhalers, hormones, vitamins, herbal supplements, and over the counter medications.
- Allergies List any medication, environmental and/or metal allergies you may have. Include reactions to anesthesia or blood transfusion restrictions.
- Medical History List of past/current medical issues and surgeries.

- Cardiac Testing and Medical Clearances Based on your medical history and/or medications, you may require medical clearances, in addition to pre-admission testing prior to your surgery. If you see a cardiologist or other specialist, we will need clearance for surgery from that physician.

Arrange for a Caregiver – You will need assistance for up to the first 1– 3 days following your surgery. A caregiver should be available to help with meal prep, transportation, medications, housekeeping and initial bathing. If you are unable to make arrangements with a caregiver, please call your surgeon's office to discuss.

Prepare Your Home – Setting up your home for your return before you have surgery will help keep you safe, make your life easier, and aid in your recovery. Consider the following to help prepare your home for recovery.

- Store all food and other supplies between your waist and shoulder level. Make sure they can be easily reached with your non-operative arm.
- Prepare a room on the first floor with all the needed supplies so that you can rest during the day.
- A recliner can be used and may be more comfortable for sleeping.
- Clear pathways into the house and remove clutter around your home.
- Move obstacles such as throw rugs, extension cords, and footstools. Consider using doublefaced tape to secure carpet edges.
- Make sure you have adequate and accessible lighting throughout the house, especially at the top and bottom of stairs.

2-4 WEEKS Prior to Surgery

- Make sure a phone is always accessible and close by.
- Find someone to help care for your pet if needed.
- Make meals and ice packs in advance.

Dental Procedures – It is important that you have no infections, tooth decay, or dental abscess in your mouth. If you are in need of dental work, you will want to complete this and allow time for healing prior to surgery. You may need a clearance letter from your dentist stating that you have had a recent dental exam and are cleared for surgery.

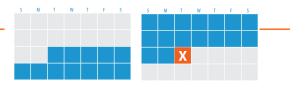
Important – Inform your surgeon if you have any skin infections, open wounds, dental infections, or urinary infections. These may cause a delay in your surgery.

Please tell you surgeon if you have a metal allergy or sensitivity. Inform your surgeon if you are allergic or unable to wear metal or jewelry.

Pre-Operative Medication Instructions

Unless you have specific instructions from your physician to continue, stop these medications before surgery:

Chronic Anticoagulants: Chronic blood thinners, such as Coumadin[®], Pradaxa[®], Eliquis[®], Xarelto[®], Plavix[®]) must be stopped prior to surgery. You MUST discuss specific instructions with your prescribing physician prior to surgery.



10 days prior to surgery: Stop aspirin. If you have a cardiac history and have been instructed by your physician to take aspirin, you MUST discuss holding this medication with your prescribing physician. Your cardiologist may instruct you to continue your aspirin regimen.

7 days prior to surgery: Stop all NSAIDs, herbal supplements, and vitamins. This includes all ibuprofen and naproxen products, Advil[®], Motrin[®], Nuporin[®], Aleve[®], Naprosyn[®], Voltaren[®], etc.

You may take Tylenol[®] (acetaminophen) for pain up until the day of surgery as needed.

Diabetic patients – Check with your primary care physician to adjust your diabetes medications the night before your surgery, as needed.

Your physician(s) will provide instructions regarding medications you should or should not take the morning of surgery.

1 DAY PRIOR TO SURGERY

Prevent Constipation – Anesthesia and pain medications are both very constipating. Start taking a stool softener 2 to 3 days before your surgery. Continue with stool softeners for the duration of time that you are taking pain medication. Stool softeners (Senocot-S®, Colace®, Docusate®) are available over the counter.

Time of Arrival – The surgery center or your surgeon's office will contact you late in the afternoon of the business day before your surgery and will tell you what time you need to arrive.

Transportation – Confirm you have transportation available for your discharge.

Medications – Follow your specific instructions regarding medications to take and not take the morning of surgery.

Shower – Shower with soap before going to bed the night before your surgery.

O NOT use lotions, perfumes, powders, or cosmetics after your shower.

Contacts and Glasses – Remove contacts prior to surgery. Bring your glasses to wear, as needed.

Food/Drink – Specific instructions do vary based on facility. Do not eat or drink anything after midnight unless you have specifically been told otherwise.

Get a good night's sleep and bring your positive attitude!

DAY OF SURGERY



What to Bring With You

- Photo ID or driver's license
- Insurance card(s) and any co-payments
- Medication list A detailed list of your medications including the dosage and frequency for each medication. Include prescription and over the counter hormones, herbal supplements and inhalers.
- **Rescue respiratory inhalers**, as needed.
- CPAP/sleep apnea machine, if you use one.
 Please bring it clean and labelled with your name.
- **Toiletries**, as needed.
- Copy of your Advanced Directives (Living Will) and Durable Power of Attorney
- This notebook

Before Departing For the Hospital or Surgery Center

Shower – Shower with soap on the morning of your surgery.

Dress – Wear comfortable, loose fitting clothing and non-skid shoes. Do not wear jewelry or cosmetics. Wear glasses and not contact lenses, as needed.

Medication – If you were told to take any medication prior to surgery, do so with a small amount of water.

Packing – Do not bring any jewelry, valuables or cash.

Arrival – You will arrive at instructed time two hours prior to your surgery time.

DAY OF SURGERY



What to Expect the Day of Surgery

Surgery Prep

The actual joint-replacement surgery takes approximately 1 – 2 hours. The preoperative and recovery room period will take an additional 2 – 3 hours. Upon arrival you will complete the necessary paperwork, change into a gown and slippers and have your vital signs taken and monitored until you go to the operating room.

While in the preoperative area, your surgeon will come to see you. An IV will be started and you will be given antibiotics. Nurses will provide you with a surgical skin wipe and will provide instructions on how to use the skin wipe prior to surgery. This wipe is an additional step to help reduce the risk of post-operative infections.

Anesthesia

While in the preoperative area before surgery, an anesthesiologist or nurse anesthetist will meet with you to discuss your medical history, allergies and your anesthetic plan.

If you have ever had a reaction to anesthesia during a previous surgery, have had difficulty with placement of a breathing tube, or have sleep apnea, be sure to tell your anesthesiologist. Please let your surgeon and the anesthesiologist know if you or any of your family members have ever experienced a bad reaction from anesthesia during a previous surgery.

You, the anesthesiologist and your surgeon will determine which type of anesthesia is best for you. This may include a peripheral nerve, interscalene block or pain block. Interscalene blocks involve placing a needle to administer pain/numbing medication to the area of shoulder and upper arm nerves (brachial plexus). This method will provide numbness and loss of pain sensation in the surgical area. This is also beneficial and allows the anesthesia team to administer less pain medication during surgery and can help to minimize the amount of narcotic pain medication required post operatively. If you have specific questions regarding anesthesia, talk with your surgeon prior to surgery. The anesthesiologist will monitor your vital signs and progress throughout surgery to ensure that you are safe, comfortable and pain free during the surgery. They will also accompany you to the recovery room to continue monitoring your progress.

The Operating Room

After the anesthesia has taken effect, skin around the shoulder is scrubbed with an antiseptic. Surgery times vary for a joint replacement but are usually 1 – 2 hours. Non-surgical delays do occur and a longer surgery time does not indicate a problem.

The Recovery Room

After your surgery is completed, a dressing will be placed over your incision. In most cases, your IV will remain in until you are discharged. A recovery room or PACU nurse will monitor your vital signs and pain after surgery. Multimodal pain control using narcotic and non-narcotic pain medication will be prescribed to control pain and discomfort. Please ask for medication to make you feel more comfortable if you experience pain or nausea.

DAY OF SURGERY Cont'd

Your Family and Caregivers

Family members should wait in the surgical family waiting area. The surgeon will talk with your family after surgery is completed. Please keep one family member in the waiting room or tell the staff that you are leaving the area so that you can be kept informed. A staff member will keep your family member updated on your progress. Please note that the entire surgical process takes approximately 3 – 5 hours before you will see your family.

Main Goals Immediately Following Surgery

- Pain Control We want you to be as comfortable as possible following your surgery. Make nursing staff aware if you are uncomfortable so they can help keep your pain well managed.
- Make sure you understand your discharge instructions. Pay close attention to medication instructions. If you do not understand, please ask questions.

Medications

Medications will be given to:

- Control your pain and reduce swelling.
- Help with constipation and nausea. If you have nausea or upset stomach after surgery, please tell your nurse.

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Other medicines that you normally take may be restarted. Talk with the clinical care team about any needs or concerns.

Diet/Nutrition

Clear liquids and solid food will be started slowly following you surgery. Diet will be advanced to regular food.

Wound Care

You will be taught how to take care of the incision as it heals. Discharge instructions will include how to care for your incision and dressing at home.

Breathing Exercises

Cough and breathe deeply 10 times per hour to keep your lungs fully expanded. This is important to keep your lungs clear and avoid complications such as pneumonia. Bed rest, sleepiness, anesthesia and pain medications often keep you from taking normal, deep breaths.

Home Care Overview Anatomic Total Shoulder Replacement

Post-Operative Recovery

Day 1

- If you stay overnight at the hospital a physical/ occupational therapist will evaluate you and provide instructions on PROM (passive range of motion) exercises to be done at home as well as activities of daily living. If you have outpatient surgery and are discharged home the same day you will receive exercise instructions at your first followup visit.
- You are not to move your shoulder on your own for 6 weeks, however; if you are sitting and relaxing, the sling (*if required*) may be removed to perform simple activities such as writing, typing, holding a book, etc., but remember to not reach out or up with the surgical arm.
- If instructed to wear a sling, it is to be worn if you are up and moving around, outside the house, and sleeping at night time.

1 – 2 Weeks After Surgery

- You will come in for your first post-op visit.
- The incision will be evaluated. May use soap and water to clean incision but remove only the outer dressing if you have one. The inner dressing of Steri-Strips[™] or mesh will fall off on its own.
- Passive range of motion will be evaluated. You will continue PROM exercises on your own at home.

5 – 6 Weeks After Surgery

- Continue or begin formal physical/occupational therapy. Refer to your providers instructions for therapy.
- Exercises and activities will be advanced per therapist instructions; will begin active range of motion and strengthening.
- Sling can be discontinued at this time once re-evaluated by the physician.

3 Months After Surgery

- New physical/occupational therapy may or may not be given at this visit depending on your progress or physician will recommend a home stretching and strengthening program.
- Most people are able to do normal activities of daily living at about 3 months after surgery without difficulty; however, it can take 6 months to a year from surgery to fully maximize strength and range of motion.

Home Care Overview Reverse Total Shoulder Replacement

Post-Operative Recovery Day 1

- If you stay overnight at the hospital a physical/ occupational therapist will evaluate you and provide instructions on PROM (passive range of motion) exercises to be done at home as well as activities of daily living. If you have outpatient surgery and are discharged home the same day you will receive exercise instructions at your first followup visit.
- Follow your surgeon's instructions for sling use.
- You may use your arm for all daily activities.

1 – 2 Weeks After Surgery

- You will come in for your first post-op visit.
- The incision will be evaluated.
- May use soap and water to clean incision but remove only the outer dressing if you have one. The inner dressing of Steri-Strips[™] or mesh will fall off on its own.
- Range of motion will be evaluated. You will continue PROM exercises at home, unless otherwise instructed by the physician. Some patients require formal physical/occupational therapy at this stage. Refer to your specific discharge instructions.

5 – 6 Weeks After Surgery

- Second post-op visit with physician.
- Physician will evaluate pain control and shoulder range of motion and strengthening.
- Decision made for formal physical/occupational therapy. May not be necessary if you are progressing appropriately.
- Continue home stretching and strengthening program.

POST SURGERY & RECOVERY Incision Care

Discharge Instructions

The information in this booklet is a general post-operative care guide. Read and understand your discharge instructions before leaving the hospital or surgery center. If you do not understand any part of your discharge instructions ask questions of your care team.

Your skin is your first line of defense against infection. It is important for your incision to heal as quickly as possible. Keep your incision clean, dry, and covered with a dry, sterile bandage for the duration of time that you are having any drainage following surgery. **Please refer to any discharge instructions regarding incision care as directed by your surgeon.**

Cleaning Incision

- Do not immerse your incision in water.
- No tub baths, swimming pools, or hot tubs until your surgeon has evaluated your incision in the office.
- Do not apply alcohol, peroxide, Neosporin[®] or any lotions or creams to your incision, unless you are directed by your surgeon.
- You may shower with soap and water. Let the water run over the incision, then pat dry with a clean dry towel.

A small amount of blood-tinged drainage from your incision is normal after surgery and should steadily decrease each day. If your drainage increases, persists or becomes foul smelling, please contact your surgeon's clinic.

Bruising & Swelling – Bruising in the operative arm is very common after surgery. Sometimes bruising worsens before it improves. Gravity may pull bruising down to your hand. **Numbness** – You may feel some numbness in the skin around your incision, or in your fingertips for period of time. It is not uncommon after joint replacement to experience numbness or burning/ prickling feelings as scar tissue heals. This typically improves gradually over the first several months to a year.

Warmth – It is normal to feel warmth or heat in the incision area. Your operative shoulder may feel warmer than your non-operative shoulder for months following your surgery. This is part of the healing process and not alarming.

Controlling Swelling

Ice – Use ice on the wound 4 – 6 times a day for 20 – 30 minutes. Use a barrier such as a thin clean towel to protect your skin from the cold.

Home-Made Ice-Bag Recipe

- 1. Two freezer zip bags, one inside the other
- 2. Three parts water to one part 70% rubbing alcohol
- 3. Place mixed liquids in inner bag, freeze and wrap in a towel or cloth before placing on your skin

Bag of frozen vegetables secured inside another freezer zip bag works well. Refreeze after each use.

Game Ready or Ice Machine – You may purchase or rent an ice machine. These machines are not required but are a great option to assist in swelling and pain control. Speak to your surgeon's office for more information.

Exercise – When you are able to move your hand, begin making a fist and holding it for five seconds. This small exercise helps to keep your blood circulating and should be done frequently.

POST SURGERY & RECOVERY Medication & Pain Management

Antibiotics

An infection in another part of your body (lungs, kidneys, mouth, skin, etc.) could possibly spread to your new joint. Contact your family doctor and surgeon with any type of infection. To protect your joint, you may need to take antibiotics before certain procedures such as dental care or other surgery.

Please share your surgeon's antibiotic recommendations with your dentist and other healthcare providers before any dental or surgical procedure.

Existing Medications

Review your discharge instructions. Pay close attention to what medications to resume after surgery. Changes to your pre-surgery medication may have occurred. If you have any questions, call the prescribing physician.

Review instructions regarding medications such as Mobic[®], Motrin[®], aspirin, vitamin E and fish oil.

Anesthesia and pain medications are both very constipating. We advised you to start taking a stool softener 2 to 3 days before your surgery to prevent constipation. Continue with stool softeners for the duration of time that you are taking pain medication.

Women should not resume hormone replacement or birth control medication for 30 days after surgery. If you have questions, contact your prescribing physician for alternative forms of birth control.

Call your surgeon's office with questions at anytime.

Managing Side Affects

Nausea and Loss of Appetite

Patients may experience nausea and loss of appetite associated with surgery. Nausea is not unusual and pain medications may play a part. It usually resolves after several days at home.

- Take medications with plenty of food and water. Do not take on an empty stomach.
- Drink plenty of fluids.
- If you are vomiting, please contact your surgeon's office.
- If you are not eating well, you may add a serving of a high protein diet supplement beverage such as Boost[®] or Ensure[®]. These can be purchased at most pharmacies and grocery stores.

Sleep

Difficulty sleeping at night is not unusual after total joint replacement. Many factors can affect the quality of sleep including narcotic use and discomfort due to pain. Overall, sleep deprivation after total joint replacement is manageable through pain management, and activity modification.

It is suggested to sleep in a recliner after a shoulder surgery. This protects your shoulder while putting less stress on the joint. A recliner also allows you to sleep without turning over inadvertently. Side sleep should always be on the non-operative side.

The best way to sleep in a recliner after shoulder surgery is to sleep while wearing an arm sling and propping up your operative arm with a pillow placed under your elbow and hand. Doing so relieves the pressure from your shoulder, promoting better recovery.

If all else fails, it is advisable to call your primary care physician who can help you manage sleep disturbances during the post-operative period.

Medication & Pain Management Cont'd

Depression

Mood changes following a major surgery are not unusual. Major surgery is a stress factor both physically and emotionally. Some medications may have depressive side effects as well. Lack of sleep also has an impact on your overall outlook. If you should experience symptoms of depression, reach out to your family physician for assistance.

Pain Management

We want you to be as comfortable as possible following your joint replacement surgery. Pain control can be achieved with ice, elevation, a balance of activity and rest, and combination of medications and therapies. Please remember there is much more involved with managing pain and swelling than medications alone. It is important that you keep your pain and swelling under good control. Pain and swelling control will allow you to fully participate in your daily exercise and physical/ occupational therapy program.

Your surgeon will create a personalized painmanagement plan that best meets your individual needs. The plan may include both narcotic and non-narcotic medications that can help to minimize pain. It is important to understand that opioid medication doesn't work for every person or type of pain. While opioids may reduce your pain, they are unlikely to take it away completely.

Non-Narcotic Medications

Non-narcotic medications are the preferred choice of pain medications following surgery. Non-narcotic pain medications are non-addictive and have fewer side effects than narcotic pain medication. Be sure to utilize non-narcotic pain medications consistently to control your postoperative pain. Narcotic pain medications may be taken in addition to your non-narcotic regimen, if your non-narcotic medications are not controlling your pain.

Certain health conditions may influence your ability to take these medications. Tell your physician if you have a history of liver or kidney disease, stomach ulcers or stomach upset when taking non-steroidal anti-inflammatories. Always take medications with food and plenty of water. Never take pain medication on an empty stomach.

Over the Counter (OTC) – Two Basic Types of Pain Relievers:

Acetaminophen (Tylenol®) – Used to treat pain

Some prescription narcotic pain medications and some over-the-counter medications can contain acetaminophen. Please keep this in mind in order to avoid taking more than the maximal daily recommended amount of acetaminophen.

Maximum Dosage – 3000mg per day. Taking a higher dose will not provide additional relief and is dangerous.

Non-Steroidal Anti-Inflammatories (NSAIDS) – Used to treat pain and swelling

Maximum dosage of over the counter NSAIDS

- Advil[®] (ibuprofen) 2400mg (4 doses of 600mg) in 24 hrs.
- Aleve[®] (Naprosyn[®], naproxen, Midol[®]), 1000mg
 (2 doses of 500mg) in 24 hrs.

Medication & Pain Management Cont'd

DO NOT take over the counter NSAIDs in addition to prescribed NSAIDs. Please consult your surgeon before adding an NSAID to your pain medication regimen.

- Blood thinners may prevent you from taking NSAIDs following surgery.
- NSAIDs include drugs like Ibuprofen (Motrin®/Advil®),(Celebrex®) Celecoxib®, Mobic® (Meloxicam), Aleve® (Naprosyn®, Naproxen, Midol®), aspirin (Ecotrin®), Toradol® (Ketorolac) and Diclofenac (Voltaren®).

Narcotic Pain Medications

When taking a narcotic pain medication, it is important to take the smallest amount of opioid medication for the shortest amount of time during your recovery. As your pain decreases so will the amount of pain medication you use. Non-narcotic medications can be taken on a consistent basis to help limit the use of narcotic pain medications.

It is important that you call for pain medication refills at least 48 hours before you will run out of pain medication. Prescriptions may take up to 48 hours to be filled.

Most patients are able to minimize or replace narcotic pain medications with non-narcotic medications during the first 1 to 2 weeks after surgery.

Medication should not be taken in greater quantity or frequency than prescribed. Unauthorized changes may result in running out of medication early. Early refills will not be authorized. Your physician is not responsible for lost or stolen medications or prescriptions. If you are noncompliant with narcotic medication instructions, your provider may discontinue the use of controlled substances and reserve the right to discontinue prescribing pain medication. We encourage you to begin reducing the amount of narcotics as soon as possible to minimize potential side effects of narcotic use. Side effects include:

- Constipation
- Nausea and vomiting
- Drowsiness
- Dizziness
- Confusion
- Developing tolerance to the drug
- Narcotic addiction
- Potential for overdose
- Risk of withdrawal

While taking narcotics do not operate machinery, drive a vehicle or drink alcohol. Narcotics are pain medications that are legally controlled by law. Due to the addictive nature of narcotics, Orthopedic ONE physicians strictly limit their use in accordance with Local, State and Federal guidelines

Opioid Prescriptions in Ohio

The State Medical Board of Ohio has adopted new rules for prescribing and dispensing opioids (narcotics), for the treatment of both acute and chronic pain. Physicians in the state of Ohio are required by law to strictly follow these mandates. These new rules may impact how your provider prescribes pain medication.

Regulations that may affect you include:

- For adults, not more than a 7 day supply. In most cases this is sufficient.
- Extended-release or long-acting opioid analgesics cannot be prescribe for acute pain.

Medication & Pain Management Cont'd

- Controlled substance prescriptions can now be transmitted electronically to a pharmacy. Prescriptions can't be faxed, phoned in or mailed. If not sent electronically, Someone is required to pick up paper prescription from our office.
- Prescriptions cannot include refills. Should you require additional medication, a new prescription must be written.
- Opioids can only be prescribed for a short period of time following surgery.

The complete opioid amended rules for acute and chronic pain can be found at:

www.med.ohio.gov/LawsRules/ NewlyAdoptedandProposedRules.aspx

Storing Medications Safely

Keep prescription medications in their original container or packaging. The original packaging has useful information such as the person prescribed the medication, instructions for use, expiration date and pharmacy contact information.

Store your medicine out of reach and eyesight of others. Use a cabinet with a child latch or lock to avoid access by children, family, friends, or house guests. Follow any special storage instructions given to you by your pharmacist. Store your medicines in a cool, dry place. Heat, air, light, and moisture may damage your medicine. Avoid storing in bathroom medicine cabinets or near showers, sinks, windows or appliances. Open medications on a counter or table, where spilled medication will remain dry, safe and easily retrievable. Do not share medication with anyone else. Prescription medications are prescribed by medical professionals based on a person's individual medical condition and history.

Proper Disposal of Unused Medications

Medication Take-Back Collection Sites – Preferred method

- Located at some law enforcement facilities or retail pharmacies
- Check list at https://apps.DEAdiversion.usdoj. gov/pubdispsearch

Disposal In Household Trash – When Take-Back sites are not available

Follow these simple steps to dispose of medicines in the household trash.

- Mix medicines (do not crush tablets or capsules) with an unpalatable substance such as dirt, cat litter, or used coffee grounds.
- Place the mixture in a container such as a sealed plastic bag.
- Throw the container in your household trash.

When to Contact Your Physician

When to Call the Surgeon

- Drainage or bleeding from the incision (a small amount of clear drainage is normal immediately following surgery)
- Edges of the incision are separating
- Increased redness, pain or swelling on or around the incision
- Pain unrelieved by medication, ice and rest
- Fever, oral temperature 101° F or greater
- Swelling that does not improve over a 24-48 hour period with ice, elevation, and rest
- Persistent nausea or vomiting

When to Call Your Primary Care Physician

- Inability to urinate for more than 8 hours
- Fainting or dizziness or severe headache that does not go away
- Constipation, if none of the steps provided in the Constipation Section on page 32 have been effective within 24 hours
- Shortness of breath or chest pain could indicate a serious medical emergency. Call 911 and/or go to the nearest emergency room.

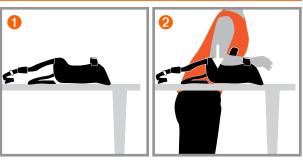


PHYSICAL ACTIVITY AND EXERCISE Activities

Follow the activity guidelines, shoulder precautions and exercises as instructed by your surgeon, physical/occupational therapist. Here are some helpful hints for doing activities safely and with one hand.

UltraSling®

- 1. Detach straps and place sling on a table.
- 2. Lean over and gently lower your arm into the sling.
- 3. Secure the Velcro strap at the top of the sling.
- 4. Buckle the shoulder strap over the opposite shoulder.
- 5. Buckle the waist strap.









Bathing

- Lean forward and let the operative arm relax and dangle slightly away from the body.
- Gently wash under the arm.



PHYSICAL ACTIVITY AND EXERCISE Activities

Dressing

- Assume the same position as with bathing. Lean forward until operative arm is straight.
- Use other hand to pull shirt over the operative arm.
- Do not use your operative arm to assist.
- Use the non-operative arm to fully pull on the shirt and button it closed.



Moving in Bed

- Support your upper forearm of the operative arm with sheets or towels rolled up under the arm.
- If you have a water bed, tell your physical/ occupational therapist.
- Sleep with the sling on the operative arm until instructed by your surgeon

Eating

- Cutting food may be difficult. A rocker knife may be helpful.
- If your plate moves around a non-slip place mat (Dycem[®]) will keep it in place.
- For opening containers, one handed utensils are available, such as a tab grabber, Zim[®] jar opener, and an adapted cutting board.

Housekeeping

- Use common sense on household tasks, such as cooking, cleaning, yard work, laundry, grocery shopping. Check with your surgeon prior to starting housekeeping tasks.
- If you have a hard time reaching items, a pair of reachers may be helpful.

Saving Your Energy

- Elevate your operative arm during basic tasks.
 For example, rest your arm on the table while eating.
- Plan your activity and give yourself extra time to do things.
- Sit down with tasks whenever possible.

PHYSICAL ACTIVITY AND EXERCISE

At Home Post-Operative Exercises – Passive Range of Motion

Do not start home Passive Range of Motion or PROM exercises until instructed to do so by your surgeon's office. Passive Range of Motion or PROM, means the movement of a body part without using your own muscle strength. You are not to move the operative arm on their own. The operative arm is only to be moved by the person who is assisting you with the exercise.

- Assistance from a family member or caregiver is required for these exercises.
- Complete 10 repetitions of each exercise, 3 times a day.
- Complete PROM elbow/wrist/hand exercises to prevent edema in the lower arm.

Passive Pendulum

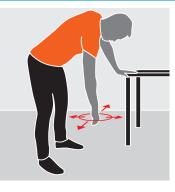
- Let operative arm dangle freely.
- Use center body (trunk) movements to move operative arm.
 - Front to back
 - Side to side
 - Small circles
- Complete pendulums 2 3x a day for 2 minutes at a time.

Forward Flexion

- Lying on your back, let operative arm completely relax.
- Caregiver lifts operative arm up and overhead.
- Elevate operative arm to a point of a gentle stretch.

External Rotation

- Lying on your back, let operative arm completely relax.
- Place towel roll under elbow, caregiver slowly rotates arm from stomach outward.











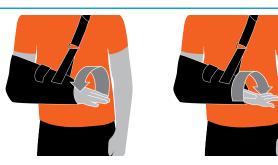
PHYSICAL ACTIVITY AND EXERCISE

At Home Post-Operative Exercises – Active Range of Motion

Start Active Range of Motion or AROM exercises day 1 post-op.

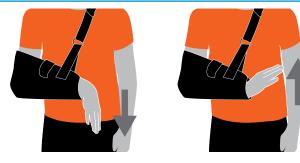
Active Forearm Pronation and Supination

- Rotate the forearm palms up and palms down while keeping your arm relaxed in the sling.
- Complete 10 repetitions of each exercise, 3 times a day.



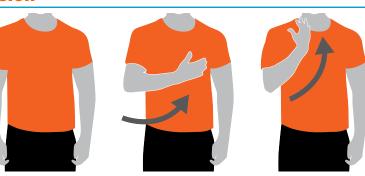
Active Wrist Flexion and Extension

Bend your wrist up and down while keeping your arm relaxed in the sling.



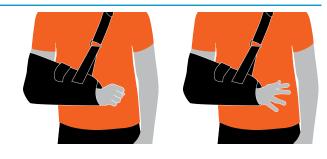
Active Elbow Flexion and Extension

 Bend and straighten the elbow when the sling is off; keeping the arm close to the body for comfort.



Active Digit Range of Motion

 Open and close your fingers while maintaining your arm relaxed in the sling.





ADDITIONAL INFORMATION Preventing Complications

All surgery involves a certain amount of stress on your body. Assessing risk and comparing it to potential benefits allows you and your family to make an informed and intelligent decision regarding the Shoulder replacement surgery.

During your surgery stay, your surgery care team will continue to monitor your overall health to ensure a safe discharge to home. During your office visit, you and your surgeon will discuss the location of your surgery and post-operative discharge plans.

Your surgeon will take steps to be sure that you can safely undergo the operation and may request that you obtain "clearance for surgery" from another doctor. The term "clearance" can be misleading. No one can guarantee you won't have any complications. The evaluation is more like a risk assessment.

After reviewing the following information, you will learn about the signs and symptoms of potential surgical complications so that they can be caught early and addressed quickly.

Infection

A surgical site infection can develop at the incision site or inside the body around the implant. These infections can develop at any time from 2 to 3 days after surgery until the incision is well healed (usually two to three weeks after the surgery). Infection continues to be a risk for the life of the implant. Surgical site infections are uncommon but very serious. The risk of infection around the time of operation is less than 1%.

Orthopedic ONE surgeons take the risk of infection very seriously. By being an active participant in your care, you and your surgical team will work together to significantly reduce your risk of a surgical site infection.

Infection Prevention

Preventing infection starts even before your surgery. In the preoperative area at the surgery center, your nurse will help you clean your body with a Chlorahexidine no-rinse, antibacterial, disposable wash cloth. You will receive a dose of antibiotics right before the start of your procedure to minimize the risk of infection. The joint implants (prosthesis) and instruments used in the operation are sterile. Your surgical team will wear special operating room protective wear and the operating room is specially designed to be extra clean. Everyone on your care team will participate in proper hand washing to prevent the spread of infection.

Steps You Can Take to Reduce Your Risk of Infection:

- Notify your surgeon immediately if you have an open wound, urinary tract infection or dental infection. An infection in any other part of your body (lungs, kidneys, mouth, and skin) could spread to your new joint. Your surgery may be delayed/cancelled until the infection has been treated.
- 2. Use soap to shower the night before surgery and again the morning of surgery.
- 3. Proper hand washing is very important to prevent the spread of infection. Before touching your incision or changing your dressing, wash your hands using soap and warm water. When washing your hands, rub them together for at least 15 seconds or as long as it takes to sing the Happy Birthday[™] song twice.
- 4. Dental Care Have your teeth cleaned 30 days prior to surgery and make sure you do not have any cavities.
- 5. Plan to go home after surgery in the care of family or friends.

ADDITIONAL INFORMATION Preventing Complications

Infection Prevention After Surgery

- 1. Keep your incision clean, dry and covered with dry, sterile bandage.
- 2. Wash your hands frequently and ask your family and friends to do the same.
- 3. Do not smoke.
- 4. If you are diabetic, controlling your glucose is important for wound healing.
- 5. Controlling your swelling with aid wound healing.
- 6. Your surgeon recommends that you not have any non-emergent or unnecessary procedures, including dental procedures, colonoscopy, or cataract surgery for three months (90 days) after surgery. If you must schedule a procedure, call to inform your surgeon prior to the procedure.
- 7. It is your responsibility as the patient to inform all your physicians, including your family doctor, dentist, about your joint replacement.
- 8. You may take preventative antibiotics before any dental procedures following your joint replacement surgery. We trust your dentist/ physician to prescribe antibiotics prior to your procedures.

Anesthesia Reaction

Some patients have reactions to anesthesia or pain medications. Please let your doctor or anesthesiologist know if you have ever experienced a bad reaction during a previous surgery.

Constipation

Anesthesia, narcotic pain medication, surgery and lack of movement will cause constipation even if you have never had a problem in the past. You should have a bowel movement 2 – 3 days after surgery. Using stool softener daily such as Senocot S[®] Surfak[®] or Docusate[®] will help to resume regular bowel habits. Drink plenty of fluids, preferably 8 to 10 glasses of water or juice daily. Add prunes or prune juice to your daily fluid intake.

Nerve Injury

Although very rare, an injury to the nerve of the arm can occur. This may cause loss of function, areas of numbness, or require a brace. The risk of injury is less than 1%. Nerves that may become injured generally heal and improve with time.

Bone Fracture, Ligament or Tendon injury

Bone fracture can occur at the time of surgery. Underlying condition of your bone may contribute to the risk of a fracture at the time of surgery. For example, a person with a significant osteoporosis may have a higher risk.

Loosening

The artificial shoulder joint (prosthesis) may come loose over time and cause irritation or pain. This usually occurs years after surgery. In this case surgery is required to replace the prosthetic joint.

Dislocation of the Shoulder

This is when the ball becomes dislodged from the socket. Dislocation may occur, particularly after complex revisions, and may require surgery to relocate the joint.

Prosthetic Wear

All joint replacements (prosthetics) experience some wear. In the event that the wear becomes severe, it will be necessary to replace the plastic liner or possibly the whole prosthesis.

Prosthetic Breakage

It is very rare, but the metal or plastic joint may break. Surgery is required to replace the prosthetic shoulder if this occurs.

If you have any questions at any time, contact your surgeon's staff or hospital staff.

ADDITIONAL INFORMATION My Care Team

There will be many health care professionals working as a team to provide you with the optimum quality care on your road to recovery. It is important, as well, for you to be an active partner with the team to ensure complete recovery from your surgery.

Orthopedic Surgeon

- Assess your need for surgery
- Perform surgery and direct your care
- Visit you on rounds in the hospital
- Evaluate your recovery at follow-up appointments at the office

Physician Assistant/Nurse Practioner

- May assist the orthopedic surgeon during surgery and follow up care in the hospital
- If he/she is used, your insurance company will be billed for their services, and there may be a nominal out-of-pocket fee

Consulting Physician

- Assess and evaluate your medical condition prior to surgery
- Direct care in their specialty area
- Assess your medical condition during your hospital stay

Orthopedic Surgeon's Office Staff

- Schedule surgery with hospital
- Will fax orders to your primary care physician for pre-admission testing

Patient Education

- Answer questions and concerns before, during and after surgery
- Notify and provide information to your insurance company about your upcoming surgery

Billing at your Surgeon's Office

 Assist you with questions following your surgery with any questions about surgeon's bill for your procedure

Nursing Staff

 Assist you with questions following your surgery with any questions about surgeon's bill for your procedure

Physical/Occupational Therapists

- Instruct and assist you with exercises after surgery
- Evaluate your physical abilities and home going needs
- Provide instruction for home activity, how to perform daily living activities, and helps you to adapt to temporary lifestyle changes following joint replacement surgery



Tobacco and Wound Healing

Tobacco hurts the function of cells in the body that help wounds to heal and fight infection. Smoking for even 10 minutes lowers the amount of oxygen in the body for up to one hour. The more tobacco is used, the less oxygen is available in the body for health and healing.

Wound dressings absorb cigarette smoke. This makes it harder for wounds to heal after surgery.

For More Support or Information:

- Talk to your primary care provider, health care provider about quitting.
- Call the Ohio Tobacco Quit Line at 1-800-QUIT NOW or 1-800-784-8669. Visit their website at http://ohio.quitlogix.org

Alcohol and Surgery

It is important to be honest with your health care providers about your alcohol use. Tell your surgeon how many drinks you have per day (or per week).

How Does Alcohol Affect My Surgery?

If you drink more than 3 drinks a day, you could have a complication, called alcohol withdrawal, after surgery. Alcohol withdrawal is a set of symptoms people have when they suddenly stop drinking, after alcohol use for a long period of time. During withdrawal, a patient could have symptoms such as mild shakiness, sweating, hallucinations and other more serious side effects. Untreated, alcohol withdrawal can cause potentially life threatening complications after surgery.

Alcohol should be avoided after surgery and especially, while you are taking pain medications. Alcohol will seriously increase serious side effects of narcotics and other medications,. Alcohol will increase your risk of falling and decrease wound healing.

Returning to Work

Returning to work depends on your individual recovery and how much demand or stress your job puts on your shoulder. The general guideline is to be off work for approximately 6 to 10 weeks from surgery. Those who have desk jobs will be able to return to work sooner than someone who does a lot of standing, walking, lifting or physical labor.

You may return to work on a part time basis at first and slowly increase your hours to full time. You may also be sent back to work with limitations such as how much weight you can lift.

Sexual Activity

You may resume sexual activity when you can do so comfortably.

Driving and Car Travel

DO NOT Drive until your surgeon tells you it is okay. **The American Academy of Orthopedic Surgeons recommends no driving while in a sling.** Therefore, driving is discouraged and if you choose to drive, it will be at your own discretion.

Sports

Do not use exercise equipment, whirlpools or spas without discussing this with your surgeon first.

Talk with your surgeon about the type of sports you participate in. You may eventually resume some sports that do not put your shoulder at risk, such as, golfing, swimming, bicycling, and dancing.

ADDITIONAL INFORMATION

Frequently Asked Questions

Q What time should I be at the surgery center?

A The surgery center or your surgeon's office will contact you late in the afternoon prior to your surgery date and will tell you what time you need to arrive at the surgery center. If your surgery is on a Monday, you will be contacted late Friday afternoon prior to your surgery. At that time your surgeon's office may also review with you any final instructions.

Q What is typical for post-operative activity?

- A Every patient is different and times are to be considered approximate. You will progress at your own rate with guidance from your physician and therapist.
 - You should be increasing your activity level daily, but let pain be your guide.

Q How long will it take to recover? How long will my shoulder continue to hurt and swell?

A Most patients feel better about 3 months after surgery. By 6 months most patients are happy they had shoulder replacement surgery. Most patients realize a 80-90% reduction in pain, swelling, stiffness and increase in motion over the first 3 months. Patients should continue to improve over the next 18 to 24 months after surgery.

Occasionally pain will completely disappear for several months, and then reappear with changes or increase in activity, even as long as 2 to 3 years after surgery. This type of pain will improve and does not indicate a problem with the implant.

Swelling may increase the first few weeks after surgery as you become more active. Pain is generally worse at night

Q When can I drive?

A No driving is permitted while taking narcotic pain medication. Talk with your surgeon about when you may begin to drive. Depending on your surgery and situation you are usually permitted to drive after you are no longer using a sling and off all narcotics.

Q How long will I need to take pain medications?

A Pain tolerance varies from patient to patient. Most patients are able to discontinue pain medication within 1-2 weeks. Follow the pain management sections in this guide and call your surgeon for any questions!

Q When can I restart my sports activities (biking, golf, swimming, etc.?)

A Always discuss with your surgeon and physical/occupational therapist before restarting your sports activities. It will depend on the activity and how your body is healing after surgery.

Q Will my shoulder replacement set off metal detectors in airports?

A When you go through airport security be sure to tell the screener that you have an artificial joint. There are no longer medical alert cards to use at the airport.

Q What positions can I sleep in?

A Sleeping in a recliner may provide a more restful sleep. You may sleep on your back or on your nonoperative side. If you choose to sleep on your nonoperative side, make sure your operative side is supported.

ADDITIONAL INFORMATION

Frequently Asked Questions

Q What if I live alone?

A Arrange to have a caregiver with you for the first few days following your surgery.

Only medically-eligible patients discharge to a skilled facility for further therapy and recovery. It would be rare for a patient recovering from shoulder replacement to receive approval for skilled nursing.

Additional Questions

This binder was designed as a comprehensive guide to take you full circle through every aspect of your shoulder replacement surgery. If there are any questions you have or you need further clarification on anything, please do not hesitate to call us and get in contact with your surgeon.

Please contact your provider's office with any questions.

You can also reach us on the Web at: **www.orthopedicone.com**

