SHOULDER REPLACEMENT

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CENTRAL COAST ORTHOPEDICS

FOREWORD

It is my pleasure to help you navigate the process of diagnosing and treating your shoulder arthritis. This manual is designed to help explain arthritis of the shoulder, operative/non-operative treatment, the decision for surgery, the surgical procedure and post-operative recovery. I have tried to anticipate the questions that you may have about the process so I can put all that information in one convenient place. Please read this manual very carefully and have your caregiver/family read it as well.

There has been significant improvement in the ability to treat shoulder arthritis over the course of my career. I am particularly interested in shoulder replacement as I have seen the significant pain and disability that patients have endured due to shoulder arthritis. All patients with arthritis of the shoulder do not need surgery but for those that do, shoulder replacement is a very good option.

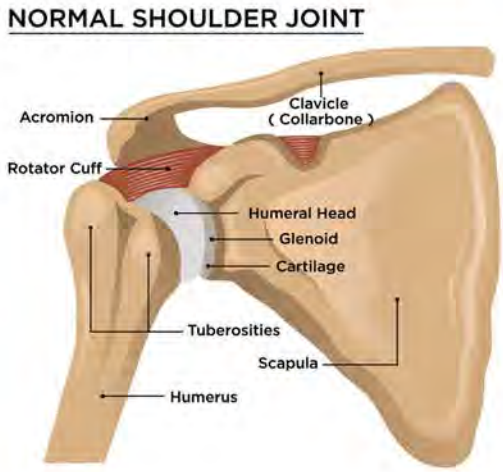
My educational background includes a Bachelor of Science from Cornell University and MD from the University at Buffalo SUNY. I became interested in shoulder disorders while in orthopedic residency at Northwestern University and during fellowship at Southern California Orthopedic Institute undergoing advance training in open and arthroscopic techniques.

The significant advancements in techniques and implants have made shoulder replacement safer, more predictable and have expanded indications to treat those that in the past would not have been surgical candidates. I hope you find this booklet informative.

M.D.

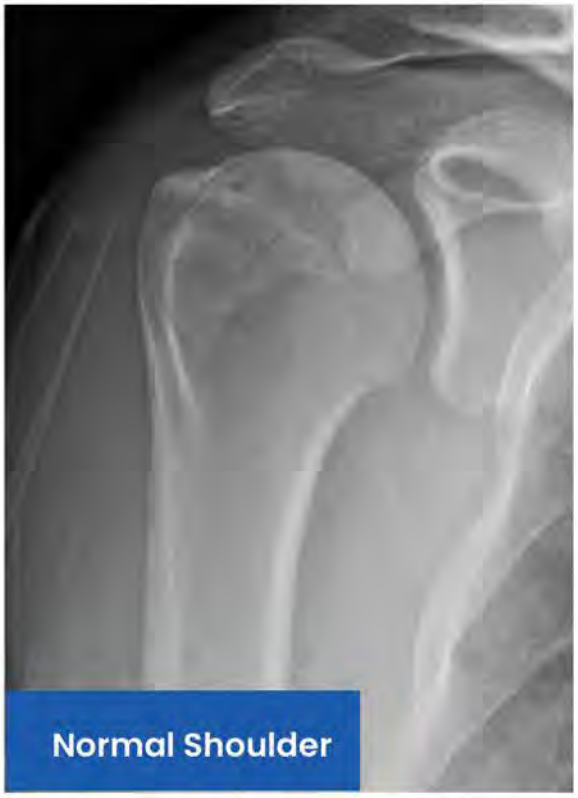
Otto J. Schnuckler

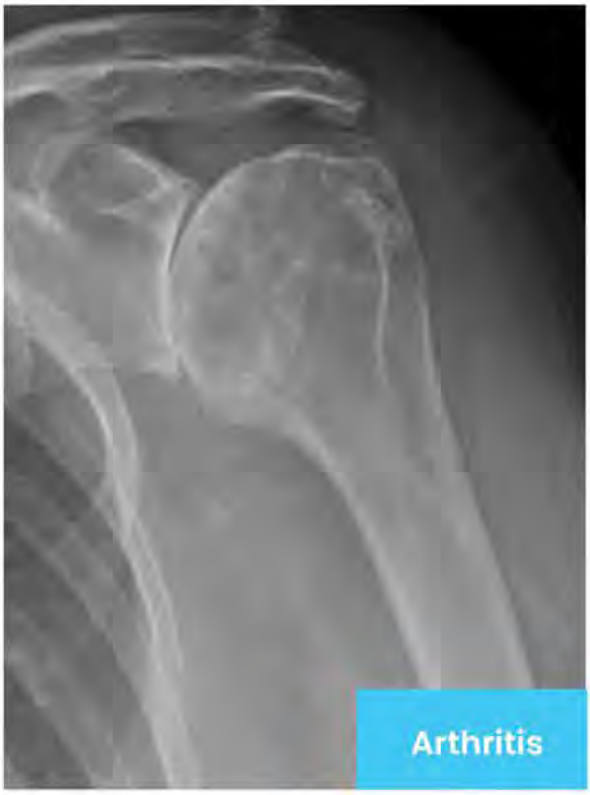
HOW A NORMAL SHOULDER WORKS



The shoulder joint is a ball and socket type joint. The humeral head (ball) and the glenoid (socket) meet to form the Glenohumeral joint. 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 a slippery, smooth tissue called cartilage and powered by surrounding muscles. Arthritis occurs when the cartilage on the end of the bone wears off.

A normal shoulder X-ray shows a space between the humeral head and the glenoid. It also shows the humeral head centered in the glenoid. Ligaments attach to the humerus and scapula to hold the joint together and give the shoulder stability. Muscles power the shoulder and give it strength.





TYPES OF SHOULDER ARTHRITIS

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

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 wear 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 may affect several joints in the body.

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) This is arthritis that occurs due to abnormal alignment of the shoulder joint due to a chronic tear of the rotator cuff tendons.

SYMPTOMS OF AN ARTHRITIC SHOULDER

Pain with rest and movement of the shoulder	Pain at night/ difficultly sleeping	Crepitus (crunching and grinding)
Stiffness in the shoulder	Shoulder Swelling	Loss of range of motion

TREATMENT OPTIONS

- Rest and Ice
- Tylenol
- NSAIDS (Non Steroidal Anti-inflammatory Drugs)
- Physical/ occupational therapy
- Cortisone Injection-less common due to concerns for causing further damage to the rotator cuff tendons and increased risk of infection
- Arthroscopy (shoulder scope) – only indicated for very early arthritis

If symptoms persist despite non-operative treatment, the next step may be a total shoulder arthroplasty. The purpose of shoulder replacement is to relieve pain and help improve function of the shoulder. The goal is to help 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 pain relief. Restoration of functional range of motion in most cases.

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.

OUTPATIENT VS. INPATIENT SURGERY

Traditionally, a joint replacement requires a 1-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. Benefits may include

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

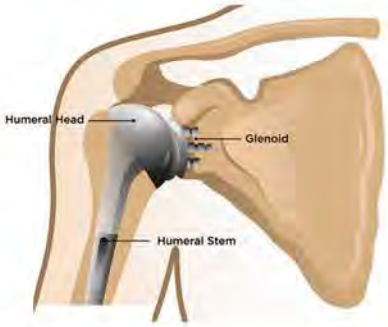
TYPES OF SHOULDER REPLACEMENT

ANATOMIC TOTAL SHOULDER

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

PROCEDURE — SHOULDER JOINT WITH ANATOMIC REPLACEMENT

During a total shoulder replacement, I will release the tendon (subscapularis) in the front of your shoulder in order to gain access the glenohumeral joint. The humeral head and bone spurs will be removed. The socket will be exposed and prepared. A plastic (polyethylene) implant is impacted with cement onto the glenoid creating a smooth conforming joint surface.

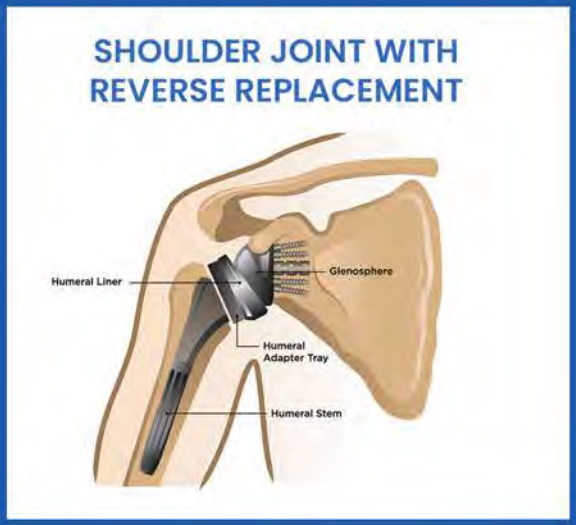


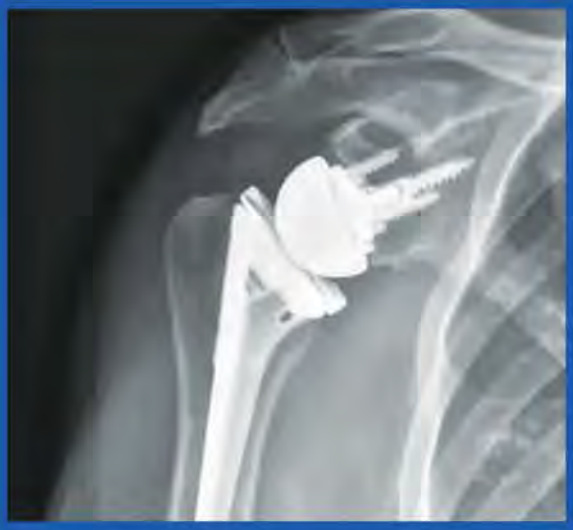
The top of the humerus is then recreated with a new metal ball either with a stemmed implant that goes a short distance down the center of the humerus or with a stemless implant depending on the quality of the bone. After the implant is in place, I will repair the subscapularis tendon.

The subscapularis, along with other muscles and tendons, help keep the total shoulder in place. The initial restrictions in range of motion and lifting after surgery are to help this tendon heal.

REVERSE TOTAL SHOULDER

Patients with shoulder joint arthritis who also have a significant tear in their rotator cuff are ideal candidates for a reverse total shoulder replacement. 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. In some cases, reverse total shoulder is preferable to an anatomic shoulder replacement due to patient age, significant bone erosion or excessive angulation of the joint surface.





PROCEDURE

During a reverse total shoulder replacement, I will release the tendon (subscapularis) in the front of your shoulder (if it is still intact) in order to gain access to the glenohumeral joint. The humeral head and bone spurs will be removed. The socket will be exposed and prepared. An implant will be impacted onto the socket and further secured with screws. This is for placement of the glenosphere (ball). I will then place an implant on the humerus that acts as the new socket, thus reversing the normal configuration of the shoulder.

RISKS OF SURGERY

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%.

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. The hibiclens washes and the benzoyl peroxide gel helps to decrease bacteria at your shoulder and axilla (armpit) prior to surgery. 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 . The surgical team will wear special operating room protectivewear 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.

Use hibiclens soap 2 days prior to surgery and the morning of surgery. Use benzoyl peroxide as directed.

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.

Dental Care – You will need clearance from your dentist prior to surgery to ensure you do not have any dental problems that could cause an infection.

Plan to go home after surgery in the care of family or friends.

INFECTION PREVENTION AFTER SURGERY

- ✓ Keep your incision clean, dry and covered with dry, sterile bandage.
- ✓ Wash your hands frequently and ask your family and friends to do the same.
- ✓ Do not smoke.
- ✓ If you are diabetic, controlling your glucose is important for wound healing.
- ✓ Controlling your swelling will aid wound healing.
- ✓ 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.
- ✓ It is your responsibility as the patient to inform all your physicians, including your family doctor, dentist, about your joint replacement.
- ✓ You will 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

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.

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 may be required to replace the prosthetic joint.

DISLOCATION OF THE SHOULDER

This is when the ball becomes dislodged from the socket. If a dislocation occurs a procedure to put the shoulder back in place either by manipulating the joint or further surgery may be necessary.

PROSTHETIC WEAR

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

BONE FRACTURE, LIGAMENT OR TENDON INJURY

Bone fracture can occur at the time of surgery. The underlying condition of your bone may contribute to the risk of a fracture at the time of surgery. For example, a person with significant osteoporosis may have a higher risk. Very rarely, a person may experience a stress fracture to the scapula after a shoulder replacement.

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.

DECISION FOR SURGERY

The decision to proceed with surgery is always individual. I will review your symptoms, physical exam findings and imagining with you in the office. The severity of symptoms will dictate the decision to proceed with surgery however many patients will comment after surgery that they should not have waited as long. There is never a rush. Some people will know right away that they want to pursue surgery as soon as we discuss the presence of arthritis. However, many people will take time to read this manual, talk with family and friends prior to making the decision. If you have significant medical issues or medical history, we will need input from your primary care provider. Ultimately, you will decide when and if to proceed with surgery.

SCHEDULING SURGERY

Once you have decided that you want to proceed with scheduling your shoulder replacement, I will provide a Surgical Scheduling Order to my medical assistant. They will provide you with a copy of this manual, as well as paperwork to be given to your primary care physician and dentist for pre-operative medical clearances. You will also be provided with a list of due dates for the necessary evaluations/clearances, tests, and visits for surgery. You will need to schedule a preoperative medical clearance appointment with your primary care physician as well as your dentist and any specialty care physicians; we will contact your primary care physician to alert them that you will be contacting them to schedule this.

This manual should contain everything you need to know about your surgery and recovery. However, if you have any questions for me or my staff, you can reach my medical assistant at

805-541-4600 x 128

Once you have scheduled your medical clearance appointment, please contact my medical assistant with the date. Ideally, your medical clearance should be scheduled within 30 days of your preferred surgical date, but the clearance will be valid for six months. You will need to be seen in office by your physician for the clearance appointment in advance of the due date provided on the due date form. If your medical evaluation is not completed well in advance of your Dr.Schueckler pre-operative appointment, your surgery will be postponed. At that time, a new date will not be scheduled until all of your clearances have been completed and the paperwork received by my staff. My staff will call to confirm the date of surgery and schedule the post-operative appointment for 1-2 weeks after your surgery. Our staff will contact your insurance companies and get authorization for surgery.

Additionally, some patients may be candidates to consider discharge to home on the same day of surgery, also referred to as 'outpatient' or 'same day discharge' joint replacement. More information on this option will be detailed later in the manual, but if this is an option you would like to consider, be sure to indicate that at the time of your surgery scheduling.

PREPARING FOR SURGERY 2-4 WEEKS PRIOR TO SURGERY

PRE-SURGERY PHYSICAL / OCCUPATIONAL THERAPY

I 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 therapist who will assess your mobility and physical/occupational therapy needs. Your physical therapist will discuss equipment you may need at home and provide home safety tips. The therapist will also review safe post-operative range of motion and use of the sling. 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 provider. Pre-admission testing will include a medical history and physical exam, blood work (Hemoglobin A1c for diabetics), EKG, and possible X-ray.

CARDIAC PATIENTS/PACEMAKER PATIENTS

If you have a cardiologist, we will need a clearance/risk assessment from that provider. If you have a pacemaker or any implanted electrical cardiac device, please check with your cardiologist to see if this needs to be tested or if any special precautions are necessary before, during or after your surgery

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. Please tell me specifically if you have any metal allergies. If these are significant, pre-operative testing may need to be done. Include reactions to anesthesia or blood transfusion restrictions.

Medical History – List of past/current medical issues and surgeries.

Medications- It is important for us to have an accurate list of your current medications. Please take time to write down your current medications below.

Please See Appendix E

ARRANGE FOR A CAREGIVER

You will need assistance for up to the first 1–2 weeks 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 double-faced tape to secure carpet edges.

Make sure you have adequate and accessible lighting throughout the house, especially at the top and bottom of stairs.

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 will 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 your 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 48 hours 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. If so, please let me know in advance.

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. This is especially important if you are on a medication such as Ozempic, Trulicity or Wegovy as these may need to be discontinued a week prior to surgery.

WEIGHT LOSS/DIABETES MEDICATIONS AND SUPPLEMENTS

Ozempic, Trulicity and Wegovy may cause delayed emptying of the stomach and will need to be stopped one week prior to surgery. In addition, there are a number of supplements that can also cause excessive bleeding. These, too, should be discontinued 7 days before surgery. They include:

- Arnica , - Fish oil, -Flaxseed, - Ginkgo Biloba, -Ginseng, - Melatonin, -Saw Palmetto, -Vitamin E, - Wintergreen

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

PRE-OPERATIVE SKIN PREP BEFORE SHOULDER SURGERY

- ✓ Benzoyl Peroxide 5% gel has been shown to reduce the risk of infection following shoulder surgery.
- ✓ The gel is to be applied beginning 48 hours prior to surgery as outlined below. In addition, please use a spray deodorant instead of stick or roll-on for 24 hours prior to surgery.
- ✓ Warning: It is suggested to wear a cotton t-shirt as the Benzoyl Peroxide may bleach your clothing.

*Only apply gel to the side of the planned surgery (right or left shoulder)

TWO DAYS PRIOR TO SURGERY:

Morning:

-Shower with anti-bacterial soap, dry well, then apply the gel (about a quarter size dollop) onto the skin of the affected shoulder.

-Apply to the side, front, and back of the shoulder as well as the armpit area.

-This should be gently rubbed onto the skin, as if you are applying sunscreen lotion.

-The gel will not be visible.

One day prior to surgery:

Morning: Shower with anti-bacterial soap, dry well, apply gel to the shoulder skin and armpit on the affected shoulder. Use only a spray deodorant if one is used as above.

Night: Reapply the Benzoyl Peroxide gel as above.

Surgery day: In early AM: Shower with anti-bacterial soap, dry well, apply gel to the shoulder skin and armpit of the affected shoulder. Use only a spray deodorant if one is used as above.

What it does ?

Reduces bacteria by 94% within

48HOURS

of application

- May cause irritation or a rash
- Please test on your other shoulder several days prior to surgery
- If your skin, particularly the arm pit, becomes irritated or develops a rash do not use on your operative shoulder.

PREPARING FOR SURGERY-1 DAY PRIOR TO SURGERY

Prevent Constipation – Anesthesia and pain medications are both very constipating. Consider starting 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 hospital will contact you prior to 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 anti-bacterial soap before going to bed the night before your surgery.

Apply benzoyl peroxide gel 2x/day

DO 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 – Do not eat or drink anything after midnight unless you have specifically been told otherwise.

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 hibiclens soap on the morning of your surgery. Apply benzoyl peroxide gel
- **Dress** – Wear comfortable, loose fitting clothing and non-skid shoes. Do not wear jewelry or cosmetics. Wear glasses (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.

YOUR FAMILY AND CAREGIVERS

Family members may wait in the surgical family waiting area or leave a phone number where I can contact them after your surgery. I will talk with your family after surgery is completed. 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.
- 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. Your diet will be advanced to regular food.

WOUND CARE

You will be instructed on dressing care. As long as there is no bleeding and the bandage stays sealed the bandage can remain in place until the follow up appointment with me in the office.

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/ REVERSE TOTAL SHOULDER

Post-Operative Recovery

If you stay overnight at the hospital a physical/ occupational therapist will evaluate you and provide instructions on PROM (passive range of motion) and active assist 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 perform exercises as reviewed with you at your initial physical therapy visit prior to surgery.

You will use a sling for 4 weeks. However, if you are sitting and relaxing, the sling 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 or bear weight on the operative arm. The sling is to be worn if you are up and moving around, outside the house, and sleeping at night time.

1 – 2 Weeks After Surgery

Your first post-operative visit will be 10-14 days after surgery. The incision will be inspected and sutures will be removed. After sutures are removed you may use soap and water to clean incision. Do not use creams or lotions immediately after the sutures are removed. I will evaluate your range of motion. In most cases you will continue with the home exercises until I see you for your second post-op visit at the 4-5 week visit. In some cases, formal physical therapy will be prescribed.

5 – 6 Weeks After Surgery

Continue or begin formal physical/occupational therapy.
Exercises and activities will be advanced per therapist instructions. You 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. I may 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.

POST SURGERY & RECOVER-INCISION CARE

Discharge Instructions

Your skin is your first line of defense against infection. It is important for your incision to heal as quickly as possible. The Aquacel (tan colored) dressing was placed over your incision in the operating room. This dressing is intend to be used until you follow up with me in the office. This is water proof and you may shower with this bandage in place as long as it is well adherent to you skin. No further dressing should be necessary. If the center pad of the dressing shows bleeding or staining to the edge of the pad extending from one side to the other, it should be changed. Please call the office if this is the case. After the dressing is removed, you may shower provided the wound is sealed and not draining.

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.

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 scartissue 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 shoulder 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

- Two freezer zip bags, one inside the other .
- Three parts water to one part 70% rubbing alcohol .
- 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 an option to assist in swelling and pain control .

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.

MEDICATIONS AND 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 will need to take antibiotics before any dental visits for 1 year after surgery and prior to invasive dental work such as fillings, root canal or implants for life.

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.

Post-operative Medications for Pain

Tylenol 1000mg by mouth every 8 hours

Celebrex 100mg by mouth every 12 hours

Oxycodone 10mg Take one or two tablets by mouth every 4 to 6 hours as needed for pain

Zofran (ondansetron) 4mg by mouth every 8 hours as needed for nausea

PAIN CONTROL

Pain is expected after shoulder replacement surgery. Our goal is to control pain so that you can participate in post-operative range of motion exercises and light activities. We use a combination of anesthetic techniques such as nerve blocks and multi-modal use of medication to help control pain at the time of surgery. Multi-modal means that we use medications that work in different ways to control pain. Tylenol (acetaminophen) works to dampen pain at the central nervous system. Celebrex decreases pain and inflammation at the site of surgery. Narcotic medications such as Oxycodone relieve pain both centrally and peripherally at the surgical site. It is recommended to use the non-narcotic medications first and then use the stronger medications such as narcotics if and when needed. We hope to use the lowest dose of narcotic medication for the shortest time to avoid the side effects of these medications such as nausea, dizziness, sedation as well as decrease the risk of longer dependence and addiction to these medicines. Ice, elevation, a balance of activity and rest as well as medication are all involved in a successful pain control plan.

Medications

-Acetaminophen 1000mg by mouth every 8 hours

-Avoid if you have a history of liver disease such as cirrhosis or hepatitis

-Celebrex 100mg one tablet by mouth twice per day as needed for pain

-Avoid if you have kidney disease, renal failure, bleeding ulcers or sulfa allergy

-Oxycodone 10mg – Take one or two tablets by mouth every 4 to 6 hours as needed for pain

-Please tell us if you are currently taking any narcotic medication or previously have had problems with narcotics in the past. (intolerance, addiction etc.)

MANAGING SIDE EFFECTS

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. I will prescribe Zofran, an anti-nausea medication, along with your other medications pre-op.

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.

If you have persistent difficulty sleeping, it is advisable to call your primary care provider who may have other options to help manage sleep disturbances during the post-operative period.

I do not prescribe sleeping pills. If you anticipate difficulty sleeping after surgery, please inquire about obtaining a prescription for a sleep aid from your primary care provider prior to surgery.

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.

CONSTIPATION

Constipation can be a problem after surgery and with the use of narcotic pain medication. I recommend starting the stool softener (colace) a day or two prior to surgery and take every day that you are using the narcotic medication. I recommend taking Miralax, Milk of Magnesia, Magnesium citrate or Dulcolax oral pills or suppository (all available over the counter) if you do not have a bowel movement by 1 or 2 days after the surgery

Colase 100mg - Take one tablet by mouth every 12 hours

Milk of Magnesia - One tablespoon as needed for bowel movement

Miralax - Take One capful with 8oz glass of water

Dulcolax oral or suppository - Take one pill by mouth

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

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.

POST SURGERY & RECOVERY

MEDICATION & PAIN MANAGEMENT CONT'D

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 11 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.

PREVENTING COMPLICATIONS

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.

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.

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 our office.

Please contact your provider's office with any questions.

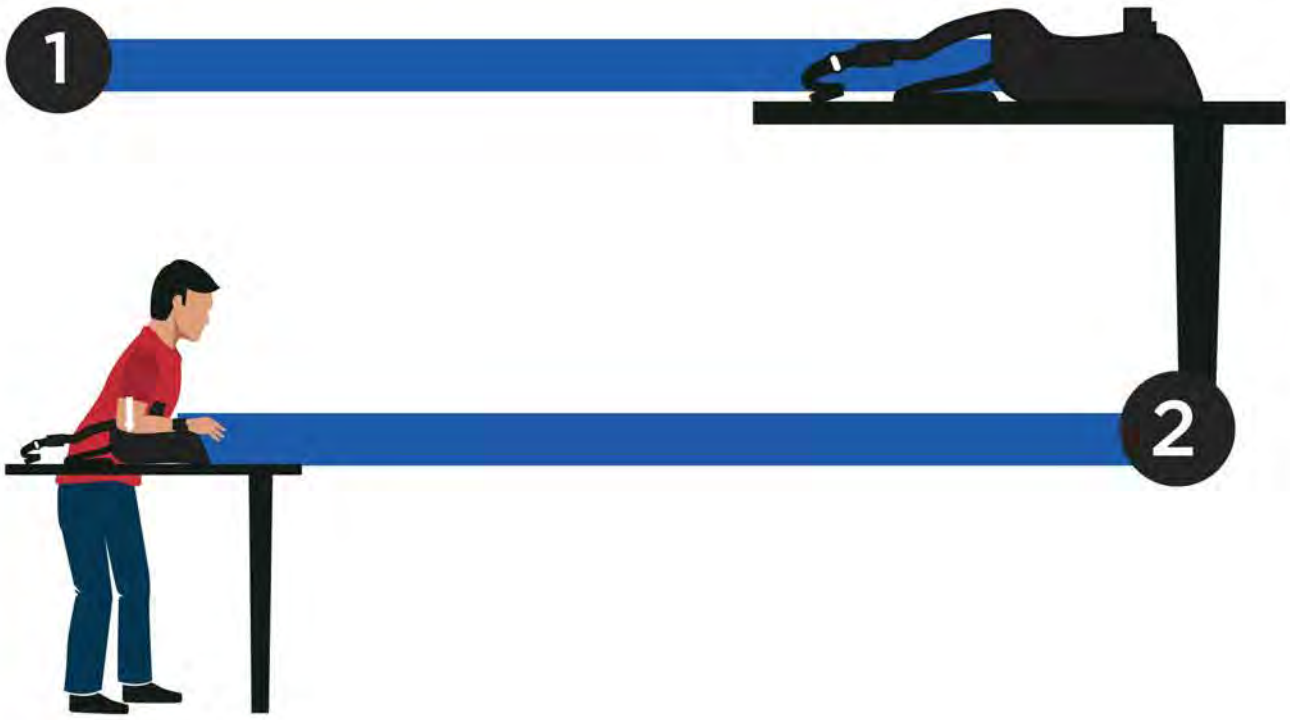
Appendix A

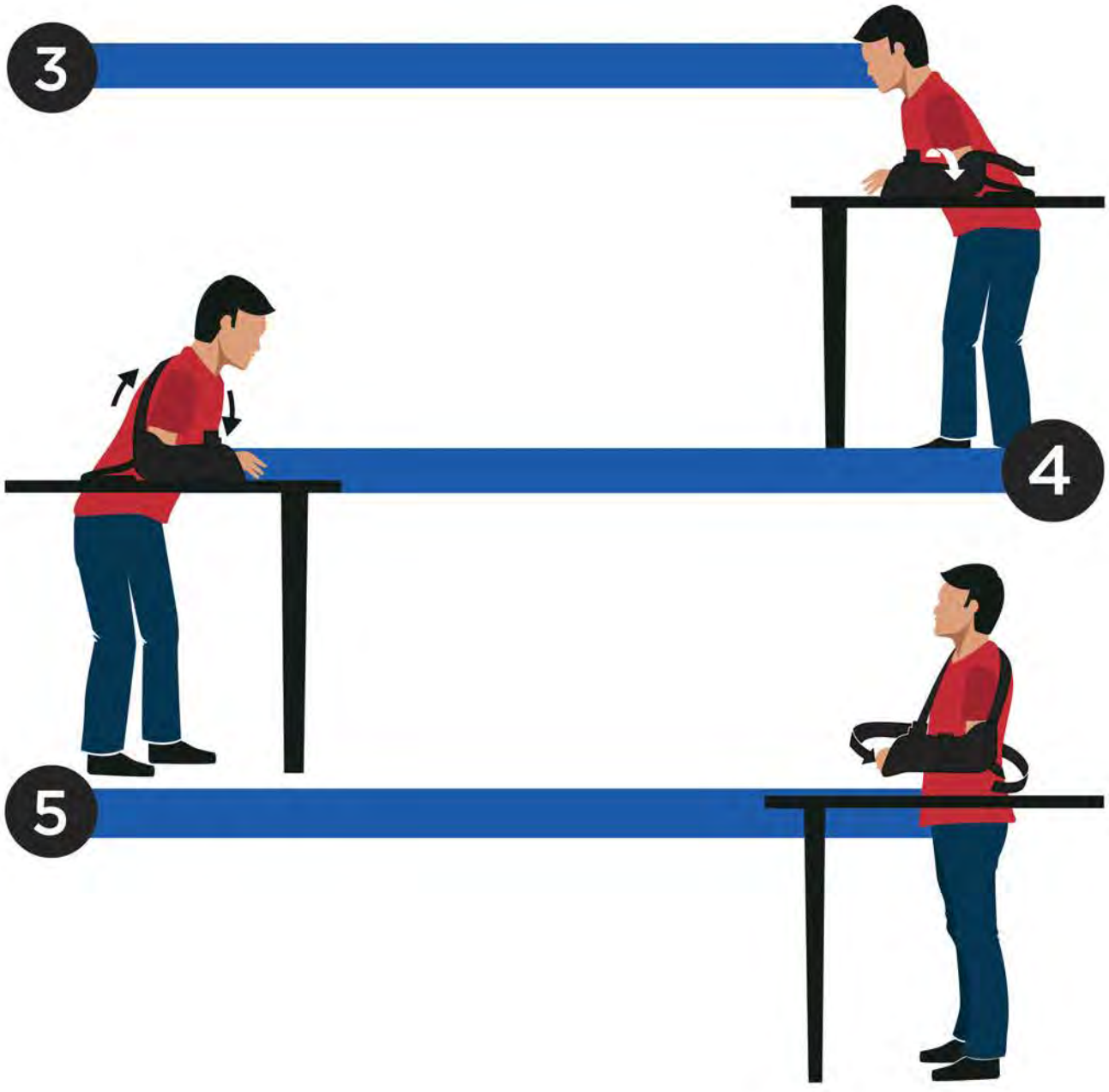
SHOPPING LIST/PHARMACY

1. **Acetaminophen** extra-strength 500mg
2. **Celebrex** 100mg
3. **Aspirin** 81mg
4. **Oxycodone** 10mg
5. **Colace** 100mg
6. **Zofran** 4mg
7. **Optional**- for constipation
   a. **Milk of Magnesia-** One tablespoon as needed for bowel movement
   b. **Miralax -** 1 Capful with glass of water
   c. **Dulcolax** oral or suppository: Take one pill by mouth
8. **Ice packs gel type or ice machine**

Appendix B

SLING USE AND RANGE OF MOTION EXERCISES

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4
5

BATHING

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

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.
- Do not use your operative arm to push yourself up in bed or out of a chair.
- 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. This allows cutting with the non-operative hand.
- A non-slip place mat will help keep your plate from sliding
- Consider a one handed can opener such as kitchen mama and an adapted cutting board.

HOUSEKEEPING

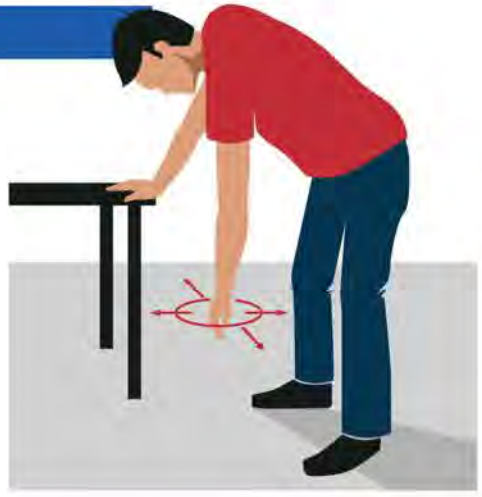
- Use common sense on household tasks, such as cooking, cleaning, yard work, laundry, grocery shopping. Check with your surgeon prior to starting housekeeping tasks.
- If you have a hard time reaching items, a pair of reachers may be helpful.

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.

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 4x/day – 10-20 each direction



ACTIVE FOREARM PRONATION AND SUPINATION

Rotate the forearm palms up and palms down while keeping your arm relaxed in the sling

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

Appendix C

All medical procedures have specific risks and benefits. Please also review the operative consent form prior to your pre-op visit. You will have an opportunity to ask any questions at that time.

Surgical Risks

SURGICAL DISCLOSURE AND CONSENT

Total Shoulder Arthroplasty

Surgical Disclosure and Consent

TO THE PATIENT : You have the right to be informed about your condition, the alternative methods available to treat it, and the risks associated with treatment and non-treatment. In that way you may make the decision whether or not to undergo the treatment I have recommended after knowing the risks and possible complications involved. This disclosure is not meant to frighten or alarm you; it is simply an effort to make you better informed so you may give or withhold your consent to the procedure. Please do not hesitate to ask any questions you may have about your condition or about the methods that can be used to treat it.

I understand that Dr. Schueckler may discover other or different conditions which require additional or different procedures than those planned. I authorize him, his associates, technical assistants, and other health care providers to perform such other procedures as are advisable in their professional judgment. I authorize such use of blood or blood products and x-ray and laboratory services as are advisable in their professional judgment. Other persons in attendance during surgery for the purpose of providing other specialized professional services may include equipment and implant representatives. Also in attendance may be students or other observers required to be in attendance as part of their professional education. I understand that no promise or guarantee has been made to me as to the result of the treatment or that I will be cured. I understand that my condition may be the same or worse after the treatment proposed. Just as there are risks and complications in not treating my present condition, there are also risks and complications related to the performance of the total Shoulder replacement planned for me. I realize that the risks and possible complications of a total Shoulder replacement include, but are not limited to:

Risks and Possible Complications of a Total Shoulder Arthroplasty

- ✓ Infection
- ✓ Injury to nerves or blood vessels
- ✓ Bleeding
- ✓ Anesthetic Complication
- ✓ Allergic Reactions
- ✓ Wound Healing Complications
- ✓ loss of motion
- ✓ Failure of the Prosthetic Components
- ✓ Persistent Pain
- ✓ Failure of Component Fixation
- ✓ Ligament Injury
- ✓ Need for Repeat Surgery
- ✓ fracture
- ✓ Scarring
- ✓ Hemorrhage
- ✓ Heart Problems (myocardial infarction) and even Death
- ✓ Dislocation
- ✓ Blood Clots in the Veins or Lungs
- ✓ Tendon Tear

I understand that the use of anesthesia to put me to sleep during surgery and/or the use of a regional block to relieve and protect me from pain during the Shoulder replacement proposed also involves risks and possible complications. I understand that the use of any anesthetic may result in lung and respiratory problems, heart problems, drug reaction, paralysis, brain damage, or even death. I have been given the opportunity to ask questions about my condition, alternative forms of anesthesia and treatment, risks of non-treatment, procedure to be used, and the risks and complications involved, I believe that I have sufficient information to give this informed consent. I certify this form has been fully explained to me, that I have read it or have had it read to me, that the blank spaces have been filled in, and that I understand its contents. I consent to proceed with the procedure.

Witness Signature _____

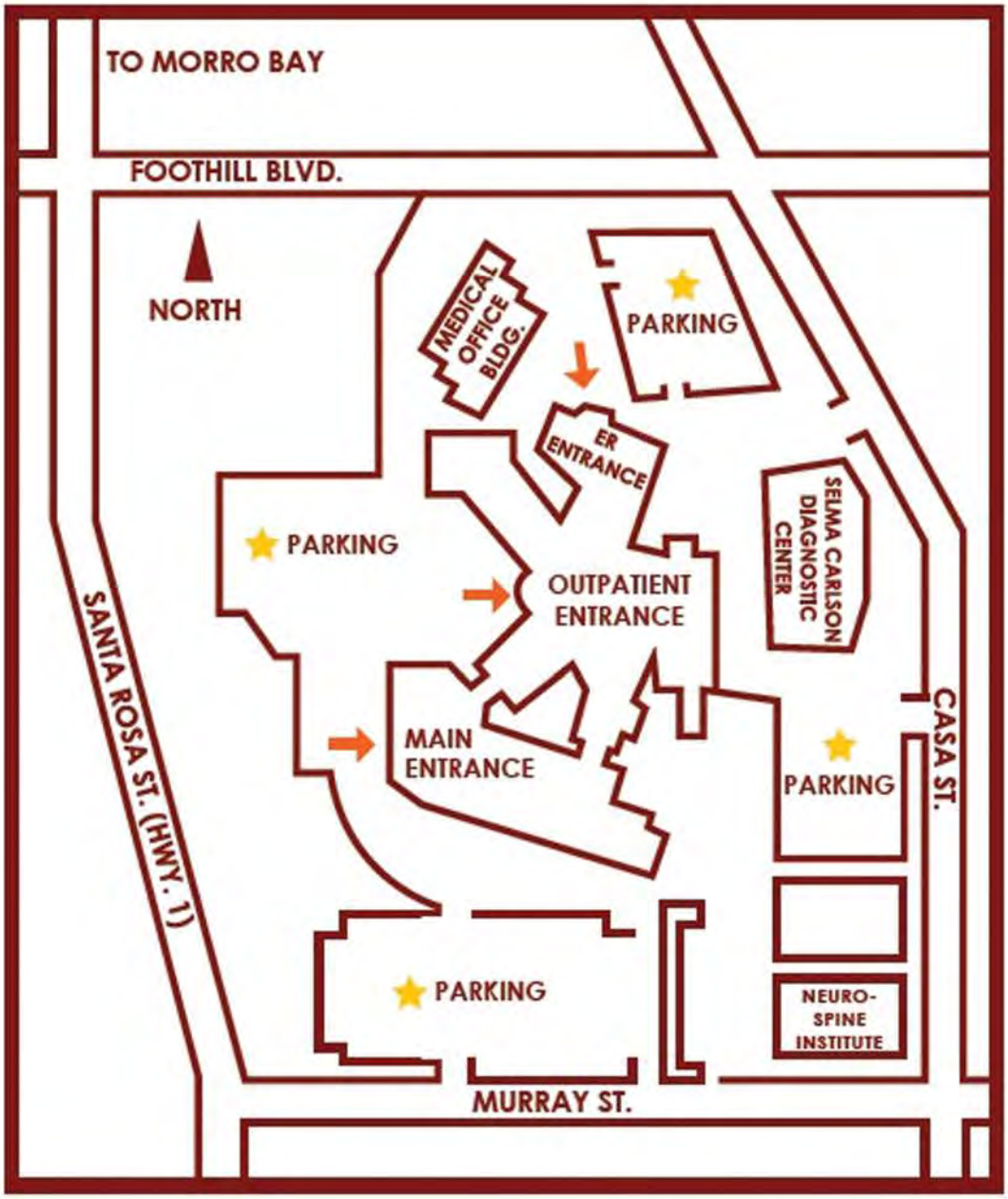
Patient / Agent / Guardian Signature _____

Provider Signature _____

Appendix D Hospital Maps

FRENCH HOSPITAL CAMPUS

SIERRA VISTA REGIONAL MEDICAL CENTER



Sierra Vista Regional Medical Center: 1010 Murray Avenue, San Luis Obispo

Medical Office Building: 35 Casa Street, San Luis Obispo

Selma Carlson Diagnostic Center: 77 Casa Street, San Luis Obispo

Sierra Vista Neuro-Spine Institute: 1064 Murray Avenue, San Luis Obispo

Appendix E

Patient Name: _____ Date of Surgery: _____

Pre-Op Medication Instructions

CARDIAC MEDICATIONS:

ACE-I/ARBS: Hold for 24 hours prior to surgery (skip morning of surgery and evening before)

- ☐ Benzopril (Lotensin)
- ☐ Captopril (Capoten)
- ☐ Enalapril (Vasotec)
- ☐ Lisinopril (Zestril)
- ☐ Losartan (Cozaar)
- ☐ Valsartan (Diovan)

DIURETICS: Hold on day of surgery

- ☐ Eplerenone (Inspra)
- ☐ Furosemide (Lasix)
- ☐ Hydrochlorothiazide (Microzide)
- ☐ Metolazone (Zytanix)
- ☐ Spironolactone (Aldactone)

PAIN MEDICATIONS:

NSAIDS: Hold for 1 week prior to surgery,

- ☐ Aspirin
- ☐ Celecoxib (Celebrex)
- ☐ Diclofenac (Voltaran)
- ☐ Etodolac (Lodine)
- ☐ Ibuprofen (Advil, Motrin)
- ☐ Indomethacin (Indocin)
- ☐ Ketorolac (Toradol)
- ☐ Meloxicam (Mobic)
- ☐ Nabumetone (Relafen)
- ☐ Naproxen (Aleve, Naprsyn, Anaprox)
- ☐ Oxaprozin (Daypro)
- ☐ Piroxicam (Feldene)
- ☐ Rofecoxib (Vioxx)

PSYCHOTROPIC MEDICATIONS:

STIMULANTS: Extended release formulation: Hold for 24 hours (i.e. Focalin XR, Adderall XR, etc.); otherwise, hold the morning of surgery

- ☐ Dexmethylphenidate (Focalin)
- ☐ Dextroamphetamine (Adderall)
- ☐ Lisdexamfetamine (Vyvanse)
- ☐ Methylphenidate (Concerta)
- ☐ Methylphenidate (Ritalin)

Other Medications:

DIET MEDICATIONS:

- ☐ Phentermine - hold for 4 days prior to surgery
- ☐ Contrave (Naltrexone/bupropion) - hold 24-48 hours prior to surgery

ANTICOAGULANTS: Hold prior to surgery, UNLESS OTHERWISE INSTRUCTED BY A CARDIOLOGIST

- ☐ Apixaban (Eliquis) - hold 24-48 hours prior to surgery
- ☐ Clopidogrel (Plavix) - hold 5-7 days prior to surgery
- ☐ Rivaroxaban (Xarelto) - hold for 24 hours
- ☐ Warfarin (Coumadin) - hold 5 days prior to surgery

BIGUANIDES: Hold for the night before and morning of surgery.

- ☐ Metformin

GLP1-AGONISTS: Weekly Injectables: Hold for one week prior to the surgery; Daily injectables: Hold day of surgery and IF POSSIBLE, 24 hours prior to surgery

- ☐ Semaglutide (Ozempic, Wegovy)
- ☐ Liraglutide (Victoza, Saxenda)
- ☐ Tirzepatide (Mounjaro, Zepbound)

SGLT-2 INHIBITORS: Hold for 3 days prior to day of surgery if feasible, > 24 hours minimum

- ☐ Canagliflozin (Invokana)
- ☐ Dapagliflozin (Farxiga)
- ☐ Empagliflozin (Jardiance)
- ☐ Ertuglifozin (Steglatro) - hold 4 days prior to surgery

HERBAL SUPPLEMENTS: Hold for 7-14 days prior to surgery; **VITAMINS can be continued as normal**

- ☐ Ephedra - hold for 24-48 hours
- ☐ Fish Oil - hold for 7 days
- ☐ Garlic - hold for 7 days
- ☐ Gingko- hold for 36 hours
- ☐ Ginseng - hold for 7 days
- ☐ Kava - hold for 24 hours
- ☐ Turmeric - hold for 24 hours
- ☐ Kratom - taper to lowest possible date of surgery before day of surgery
- ☐ Ma-Huang - hold for 24-48 hours
- ☐ St. John's Wort - hold for 7 days
- ☐ Valerian - taper to lowest possible dose before day of surgery

OVER THE COUNTER MEDICATIONS: Continue allergy medication; hold for 24 hours prior to surgery

UROLOGIC: Hold for 24 hours prior to surgery

- ☐ Sildenafil (Viagra)
- ☐ Tadalafil (Cialis)

****FOR ALL OTHER MEDICATIONS PLEASE CONTINUE AS NORMAL, UNLESS OTHERWISE INSTRUCTED BY YOUR PRIMARY CARE OR TREATING PROVIDER****

Medication Name:	**Date of Last Dose:**

CONTACT US

805-541-4600

WWW.CENTRALCOASTORTHO.COM

862 MEINECKE SUITE 100
SAN LUIS OBISPO, CA 93405

SCAN QR CODE

SCAN QR CODE TO SHARE THIS BOOK WITH FAMILY, CARE TAKERS AND FRIENDS