Miguel A. Ramirez, MD
OSF ORTHOPEDICS
Shoulder, Elbow & Sports Medicine

PREOPERATIVE INSTRUCTIONS

PLEASE READ UPON RECEIPT OF SURGERY DATE

Thank you for choosing OSF Orthopedics and the Office of Dr. Miguel Ramirez. It is our goal to make your surgery experience and pleasant and efficient as possible. In preparation for your upcoming surgery, the following enclosed necessary pre-operative instructions should be followed to prevent any delay or cancellation of your surgery. Please call Dr. Ramirez's office with any questions or concerns regarding the following information.

Pre-operative Testing and Clearance:

1. You will be required to have a pre-surgical work-up that includes necessary testing. This includes a history and physical by your Primary Care Physician (PCP) and blood work. This also may include a chest x-ray, EKG and further work-up by other physicians. ****Please Note**: If you are followed by other physicians, such as cardiologists, endocrinologists, and neurologists, you may be required to see them prior to surgical clearance. Discuss this with your PCP.
2. If you have multiple medical problems or a history of prior problems with anesthesia, or have any concerns regarding surgical anesthesia, you may be required to have an anesthesia consult. Please discuss this with your PCP. **This should be scheduled 2-3 weeks before your surgery.**
3. The Athletic Trainer will contact you to fit you for a sling with a bolster (large foam pillow) prior to your surgery. They will also instruct you on basic exercises that can be done after discharge from the hospital. Take the sling to the hospital with you on the day of your surgery.

Pre-operative Medication Instructions:

1. Your PCP will instruct you on all medications that should be taken on the morning of surgery. You should take these medications with a small sip of water.
2. You must **stop all NSAID** medications (Advil, Aleve, Ibuprofen, Motrin, Naproxen, Celebrex, etc.) seven (7) days prior to surgery.
3. Unless instructed by your PCP or cardiologist, you must **stop Aspirin and Plavix** seven (7) days prior to surgery. Please contact us if your PCP or cardiologist does not want you to stop these medications, as this could impact surgery.

4. You must **stop taking Omega-3 Fatty Acids and Fish Oil** seven (7) days prior to surgery. These can increase your bleeding risk.
5. If you required daily narcotic use for pain control, such as Vicodin or Percocet, you **may take** this medication with a small sip of water with your morning medications prior to surgery.
6. **If you are currently on Coumadin,** you must stop taking it seven (7) days prior to surgery. Your PCP may wish that you start taking **Lovenox**, another kind of blood thinner. This must be stopped two days before surgery. Please call our office to discuss this. Your Coumadin will be restarted the night of surgery. Please arrange to have this monitored by your PCP or cardiologist.

The Morning of Surgery:

1. Please arrange for someone to drive you to and from the hospital. This is true for ALL patients having surgery, even those having arthroscopic or elbow surgery.
2. It is recommended that you wear loose fitting/button-down clothing for after surgery
3. DO NOT eat anything after midnight. This includes hard candy/gum/coffee, etc.
4. Drink a Gatorade Zero on the way to the hospital. Do not drink anything 2 hours before the scheduled surgery time.
5. Dr. Ramirez's office will call the day before surgery with your arrival time: This will be several hours prior to surgery. Please be prompt as not to delay your surgery
6. It is recommended that you wear loose fitting clothing, such as large t-shirts or button-down shirts to wear home from surgery or in the hospital
7. **Be sure and remove all jewelry including any and all rings on your fingers.**

After Hours and Post-Op Instructions:

1. If you have any urgent problems once home from surgery (if you had a same-day, outpatient procedure) please call (309)676-5546 and ask that the on-call Orthopedist be called.
2. Please give our office **48 hour notice** of any pain medications that need to be refilled. Many pain medications that we prescribe may not be called or faxed into the pharmacy so they must be mailed or picked up. You may pick up prescriptions between 8:30 am and 4:30 pm.
3. All forms (disability, FMLA, and Workman's Comp, etc) must be sent to our office. Please allow seven (7-10) days for these to be completed. There is a fee associated with the completion of these forms.

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Postoperative Shoulder Arthroplasty Instructions

DAY OF DISCHARGE:

1. An Ice pack will be placed on your shoulder after surgery. When you get home, use the ice pack as needed. We recommend 15 minute treatments 4-5 times per day for the first 72 hours. NEVER PLACE ICE PACK DIRECTLY ON THE SKIN AS THIS CAN PUT YOUR AT RISK FOR FROSTBITE.
2. Sleep with pillows behind your elbow. Perform the shoulder exercises you were taught during your hospital stay for 10-15 minutes 3-4 times per day.
3. When awake flex and extend your elbow, wrist, and fingers as much as possible.
4. Take the prescribed pain (Oxycodone etc.) and/or anti-inflammatory (Ibuprofen etc.) medication as prescribed.
5. Make sure to arrange for occupational or physical therapy if recommended.

DAY 5:

1. You may remove the bandage and gauze from your shoulder. If there is any drainage from your wound, please call our office to let us know.
2. If the wound is dry, you may shower. Let the water from the shower run over the wound but do not soak it. Do not scrub or brush the incision. Pat the wound dry and cover it with a fresh dressing.

Please call the scheduling office in the first day or two after discharge to schedule your post-operative visit (if not previously arranged). Your appointment should be approximately 10-14 days the date of surgery. **Ask regarding the availability of virtual postop visits.** If at any time there are any signs of infection (increased swelling, redness, drainage from the incisions, warmth, fever, chills, shortness of breath or severe pain not relieved by prescribed medication) or if you have any questions or concerns, contact our office.

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Frequently asked Questions
Total Shoulder replacement

1. How long will I be in the hospital?
Total shoulder can be done as an outpatient procedure in patients who are healthy and have the necessary support at home. Otherwise, Most patients are in the hospital overnight and leave the hospital the next morning, barring any medical reasons to stay I the hospital longer. If a patient requires skilled nursing facility at discharge, they may stay a total of 3 nights prior to discharge. Patients are discharged home when they are medically stable, pain is well controlled with oral pain medicine, and they have been deemed safe to be at home.

2. How long will my surgery last?
Length of surgery will depend on the complexity and amount of work required. Most shoulder procedures are 1-2 hours in length.

3. Will I receive a block before surgery?
In most cases, you will receive an anesthetic block that will keep your arm numb from 12-36 hours. Once the block wears off, you may begin taking oral pain medicine.

3. Will I Be in a sling?
Yes. You will be in a sling postoperatively to protect your shoulder. The duration of the use of the sling is typically 2 weeks for reverse shoulder replacement and 4 weeks for anatomic shoulder replacement. Any deviations from this will be discussed with you at the time of surgery.

4. Can I remove the sling?
   Yes. You can remove the sling for Bathing and to perform the exercises explained to you preoperatively. You must have your sling on whenever you are up and about and sleeping. You may also do waist-level activities without the sling, such as eating, writing, typing, etc. as long as you are not reaching (above the head, to the side, or behind the back) or lifting anything heavier than a coffee cup
5. When will my therapy start?

Therapy will usually start 2-3 weeks after surgery. Most patients will be able to do their therapy at home without the need of a formal therapists. Patients who do not have a well-functioning contralateral shoulder or are unable to do their own therapy will be referred to outpatient therapy.

6. When Can I drive?

We do not have a specific policy regarding driving, as everyone's ability to drive differs. However, the general guidelines are that you are allowed to drive whenever you feel safe and comfortable to drive. We ask that you are off the narcotic pain medicine and take your sling off to drive. Most patients are driving 2-3 weeks after surgery. We recommend you trying out driving in a parking lot or non-busy street to make sure make sure that you feel safe and competent to drive.

7. What is recovery Time?

Recovery varies widely depending on the extent of repair necessary. As a rough guideline, most people are back to normal activity in 3 months after surgery. Patients will continue to improve all the way up to a year after surgery.

Any further questions, please call our office or visit Dr. Ramirez's website www.peoriashoulder.com

AAOS
American Academy of Orthopaedic Surgeons

American Society of Anesthesiologists™

Getting Ready for Surgery: Safe and Effective Pain Relief

This resource is part of the AAOS-ASA Pain Alleviation Toolkit, strategies for safe and effective alleviation of pain and optimal opioid stewardship. AAOS and ASA partnered to develop the toolkit, recognizing that empathic communication between the surgical team, patients, and families helps prepare patients for the pain of recovery from injury or surgery.

Consider the following:

- ☐ What did you do to help get comfortable after your last procedure?
- ☐ Do you or a family member have a history of substance misuse?
- ☐ How do you deal with stress?

Your health care team may also screen for:

- ☐ Symptoms of depression, anxiety, and other unhealthy thoughts.
- ☐ Current and past opioid use by checking the state prescription drug monitoring program.
- ☐ Sleep apnea.

Notes: _____

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Safe Use of Opioids

1. Opioids should be used in the lowest dose possible, for the shortest amount of time, with safe disposal of unused pills in a locked disposal box in a pharmacy or police station.
2. Misuse is less likely for patients that take opioids five days or less.
3. Use other types of pain medication whenever possible (NSAIDS, acetaminophen). These are the foundation for safe and effective pain relief.
4. Safety first:
   - Never take more medication than prescribed and do not share your medication.
   - Ensure it is also properly stored away from others and disposed when not needed.
   - Do not take opioids with other medications, such as antianxiety medication, sleep aids, etc.

Notes: _____

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Plan for Safe and Effective Pain Relief

Before Surgery (preparation and readiness; return to meaningful activity; distraction and social support; non-medication therapies; medication therapies & dose).

_____

_____

_____

After Surgery

Your health care team may ask:

- ☐ How are you doing?
- ☐ Are you having more pain from the surgery than you expected?
- ☐ Is pain limiting any important tasks?

Your health care team may advise:

- ☐ Remember that your body needs time to heal.
- ☐ Take as few opioids as possible.
- ☐ Strategies to help get more comfortable.

Notes:_____

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Practice-Wide Medication Guide for Common Orthopaedic Procedures

Type of Procedure	Procedure Examples	Recommended Opioid Maximums	Strategy
Minor procedures	Trigger finger, carpal tunnel release, etc.	Patients will receive no more than_____ opioid pills and just one prescription then switch to non-opioids.	Acetaminophen and/or NSAIDs
Intermediate procedures	Open reduction internal fixation of a radius or humerus fracture, knee or shoulder arthroscopy, etc.	Patients will receive no more than ___ opioid pills and just one prescription then switch to non-opioids.	Switch to non-opioids as soon as possible. Use a pill cutter to reduce the dose of opioids more rapidly.
Major Procedures	Spinal fusion, ORIF acetabular fracture, joint replacement, etc.	Patients will receive no more than 40 opioid pills and not more than 2 refill(s) of opioids.	Discontinue opioids within two weeks if possible and within one month of surgery.
Other	Fractures, laceration, etc. treated in the emergency room	Some very unstable or complex fractures may, on occasion, be treated with opioids prior to surgery, usually as an inpatient.	Non-opioid medications (ibuprofen, acetaminophen), ice, elevation.

AAOS
American Academy of Orthopaedic Surgeons

INFORMATION
from your Orthopaedic Surgeon

Surgical Site Infections

Surgical Site Infections (SSIs) are defined by the Centers for Disease Control and Prevention as infections that occur after surgery in a part of the body where the surgery took place. Superficial SSIs involve only the skin where the incision was made, while deep SSIs are serious infections that can involve tissue and muscle, organs, or implanted material.

Shoulder replacements consistently and significantly improve quality-of-life by relieving pain and restoring function in well-chosen candidates. In the United States, Shoulder replacements are being performed with increasing frequency. Unfortunately, approximately 1% of patients undergoing orthopaedic procedures may develop an infection at the surgical site. These infections can be devastating and often require treatment with additional surgery and long-term antibiotics. It is generally accepted that infections that occur within three months of surgery are considered surgical site infections.

What increases my risk for infection following Shoulder replacement surgery?

Many factors may increase the risk of a SSI after a hip or knee replacement. Research significantly linked anemia, length of hospital stays, use of immunosuppressive medications, alcohol abuse, BMI (body mass index) over 40 kg/m^2, depression, history of congestive heart failure, dementia, or the diagnosis of HIV/AIDS (human immunodeficiency virus/acquired immunodeficiency syndrome) as higher risk factors. Other studies have found that chronic kidney disease, diabetes, tobacco use, and malnutrition are additional risk factors for developing a SSI. Limited evidence showed that cancer, high blood pressure, and liver disease are also risk factors.

How can I tell if I have developed an infection in my Shoulder following replacement surgery?

You should be concerned if your shoulder suddenly starts to hurt more than normal or begins to drain from your surgical site. Some pain is normal following surgery, but a dramatic increase in pain without a clear explanation could mean there is an infection.

What should I do If I think my shoulder may be infected following replacement surgery?

Patients should contact their doctor's office as soon as possible and speak to the healthcare team. The healthcare team will determine if you need to be seen in their office, or if you should go to an emergency room.

If you think you have an infection, do **NOT** start taking antibiotics until instructed by your healthcare team. You should call your doctor's office to discuss your symptoms. Patients with suspected SSIs should be assessed by a history and physical examination for pain, fever, and persistent wound drainage.

How are Surgical Site Infections diagnosed?

Your surgeon may order blood tests to determine if you have an infection. These tests may include erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), and

interleukin-6 (IL-6). These tests are reviewed collectively to establish if you have an infection.

If your blood test confirms a strong concern for an infection, your surgeon or someone else may remove synovial fluid from the space around your Shoulder for a culture (putting the fluid in a petri dish to see if bacteria grows). Strong evidence supports that synovial fluid and tissue cultures, if positive, are reliable tests for the diagnosis of an infection; although negative synovial fluid and tissue cultures do not completely exclude the possibility of an infection.

Can special imaging be used to confirm or diagnose a surgical site infection?

Radiographs (x-rays) are considered as the initial imaging exam for suspected cases of bone and/or implant infection. In general, there is not a single imaging technology that can provide clear answer whether or not you have a SSI. There is limited evidence that supports the use of medical imaging in the diagnostic evaluation of patients with suspected SSIs.

What treatment options are available for Surgical Site Infections?

Some SSIs are treated with antibiotics, while deep SSIs are most often treated with additional surgery. Procedures, such as debridement (the removal of dead, damaged, or infected tissue) and implant removal, may be performed to help clear the infection.

How long should I continue suppressive antibiotics?

The optimal duration of antibiotic therapy is not known, but intravenous antibiotics are typically prescribed for around 6 weeks following surgical procedures to treat infected joint replacements and are occasionally followed by an additional course of oral antibiotics. There is moderate evidence to support that antibiotics beyond 8 weeks does not result in a significantly different outcome. In the case of *Staphylococcal* infections, an additional antibiotic (Rifampin) may be prescribed as a second antimicrobial to increase the probability of treatment success.

Resources:

American Academy of Orthopaedic Surgeons 2018 *Systematic Literature Review on the Management of Surgical Site Infections*

Please note: This is a patient information handout that orthopaedic surgeons and physicians can provide to their patients. This information was current at the time of publication. However, medical information is always changing, and some information given here may be out of date. This patient handout is based off recommendations from the 2018 AAOS Systematic Literature Review on the Management of Surgical Site Infections. To review this guideline please visit http://www.orthoguidelines.org/topic?id=1022

Miguel A Ramirez MD

Procedures Requiring Antibiotic Coverage for Total/Partial Joint Replacement

Schedule A
Dental Cleanings
Tooth Extractions
Bronchoscopy
Upper GI
Excision of skin lesion

Schedule C
Endoscopic Retrograde
Cholecystopancreatography (ERCP)
Cholangiography
Cystoscopy
Transurethral Prostate Resection (TURP)
D&C
Hysterectomy
Transvaginal Hysterectomy

Schedule B
Colon/intestinal surgeries
Sigmoidoscopy
Colonoscopy

Schedule D
Urinary tract infections

Schedule A (if able to take PCN)

- Amoxicillin 2 grams PO 1 hour prior to procedure *or*
- Keflex 1 gram PO 1 hour prior to procedure *or*
- Ancef 1 gram IV during induction of anesthesia *or*

(if allergic to PCN)

- Erythromycin 1 gram PO 1 hour prior to procedure *or*
- Clindamycin 600 mg PO 1 hour prior to procedure *or*
- Clindamycin 600 mg IV during induction of anesthesia

Schedule B

- Cefoxitin 1 gram IV during induction of anesthesia *or*
- Gentamycin/Tobramycin 80 mg + Vancomycin 500 mg IV during induction of anesthesia *or*
- Amoxicillin 2 grams PO 1 hour prior to procedure (if no anesthesias is used)

Schedule C

- Ancef 1 gram IV during induction of anesthesia *or*
- Gentamycin/Tobramycin 80 mg + Vancomycin 500 mg IV during induction of anesthesia

(no Vancomycin for a TURP or Cystoscopy)

Schedule D
Appropriate antibiotic based upon culture and sensitivities

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Surgical Risk/Benefit Consent Shoulder Replacement

PATIENT NAME:_____**DATE:**_____

STATEMENT OF POTENETIAL BENEFITS OF SURGERY

Shoulder replacement surgery is a very successful and safe operation associated with few complications. Potential benefits include

1. Pain relief
2. Increased motion and strength
3. Improvement in the ability to perform activities of daily living which may lead to improved quality of life

RISKS OF THE PROCEDURE

With any operation there are potential risks. Potential risks to this procedure include but are not limited to:

1. **Postoperative bleeding into the shoulder joint**, known as a hematoma. The risk of this is low, but has been reported as high as 10% in some studies. Many times this can be treated with ice and observation, but in some cases may require additional surgery to drain this.
2. **Dislocation.** Due to the nature of the prosthesis, reverse shoulders have a higher incidence of dislocation than conventional total shoulder. It is crucial that you follow your postoperative precautions as explained by your doctor to avoid this complication. Should a dislocation occur, reduction can often be done without needing repeat surgery, but in some cases, further surgery may be required.
3. **Postoperative infection.** Superficial or deep infection of the shoulder may occur. The risk of infection is approximately 1-7%. If you develop a superficial infection, it may be treated with oral antibiotics. Deep infection may require admission to the hospital, removal of the implant, followed by a 6-12 week course of antibiotics prior to revision shoulder replacement.
4. **Deep venous thrombosis (DVT)/pulmonary embolus (PE)**. Blood clots in the upper extremity are very rare, with a rate much less than 1%. Regardless, please report to your doctor any unusual swelling in the extremity or chest pain/shortness in the weeks following your surgery. Blood clots may be treated with blood thinners for a period or time ranging from 3-6 months.
5. **Nerve/blood vessel injuries.** These complications are very rare but can occur (<1%). Most nerve injuries are stretch injuries which resolve after a few weeks.

6. **Postoperative Stiffness.** There is a risk that you may develop stiffness after surgery. Stiffness in most cases can be treated with a target therapy program. However, in refractory cases of stiffness lasting 6 months- 1 year may require surgical intervention to release scar tissue.
7. **Persistent pain.** As with any surgery, there is no guarantee that surgical intervention may alleviate all your pain or return you to "normal" function. In very rare cases, patients my have persistent or worse pain after surgery. Realistic expectations are crucial, as rates of success may vary depending on the degree of injury. Dr. Ramirez can discuss with you your anticipated success rate given your level of injury
8. **Anesthesia Complications.** Modern general anesthesia is very safe. However, complications can arise, including death. Please take the time to discuss your individual anesthesia risk with your anesthesiologist on the day of surgery.

STATEMENT OF CONSENT FOR SURGERY

I authorize the performance on (name of patient)_____

of the following operation and/or procedure
TOTAL SHOULDER ARTHROPASTY
to be performed by or under the direction of **__Miguel A Ramirez, MD_** together with associates or assistants of his choice who may be employed by the physician.
__Dr, Ramirez__ has discussed with me and I understand the following items:

A. The nature and purpose of the proposed procedure(s).
B. The risks of the proposed procedure(s).
C. The possible or likely consequences of the proposed procedure(s).
D. All feasible or alternative treatments (including the risks, consequences, and probable effectiveness.

I consent to the performance of operation(s) and/or procedure(s) in addition to or those different from those now contemplated, arising from presently unforeseen conditions, which the above named doctor or his associates or assistants may consider necessary or advisable in emergency or life threatening situations.
I acknowledge that no guarantee or assurance has been given by anyone as to the results that may be obtained.
I have read and fully understand this entire form. I have asked the physician any questions I may have had, and the physician has answered any questions I asked to my satisfaction

_____ _ _____ _____
Signature (Patient/Relative or Guardian) Print Name Date

_____ _____
Miguel A Ramirez MD Date

_____ _____ _____
Witness Signature Print Name Date

MIGUEL RAMIREZ, MD

GREAT PLAINS ORTHOPEDICS

RETURN TO WORK GUIDELINES AFTER SHOULDER SURGERY

WEEKS POSTOPERATIVE	RESTRICTIONS	NOTES
0-2	Off work	If patient feels comfortable and safe, may return to desk work, one-handed duties. Must wear sling at work. May drive if feels comfortable and safe. No lifting more than 1 lb.
2-10	Off work/light duty (one-handed duties, no lifting more than 1lb) available Must be allowed to use sling at work	May return to light duty if patient feels comfortable to do so and if work has this available. Otherwise off work.
10-16	Light duty work. No overhead work. No pushing, pulling, or lifting more than 5 lbs.	Patients are expected to return to light duty work if light duty is available at work. If no light duty is available, patient will be off work. Note: **Off-work slips will be at the discretion of the employer. If light duty is available you may be asked to return to work. We cannot keep you off work at this point**
16-24	Return to full duty with no restrictions.	If patient unable to return to full duty at 20 weeks, work conditioning will be started. If Unable to return to full duty at 24 weeks, IME will be ordered

If employee foresees any issues or concerns being able to meet these guidelines, please contact Dr. Ramirez or OSF orthopedics to discuss this **prior to your surgery.**

I understand and agree with Dr. Ramirez's return to work guidelines as stated above.

Signed:_____

Date:_____