

PATIENT GUIDE TO SHOULDER REPLACEMENT SURGERY

Patrick G. Kirk, M.D.

Edward V.A. Lim, M.D.

Gina M. Hissong, CNP



The Christ Hospital Orthopaedic
Associates

Phone (513) 791-5200

Fax (513) 791-5229

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Shoulder Replacement

All forms of shoulder arthritis cause a wearing down of the cartilage “cushion” leading to pain and a limited range of motion. Osteoarthritis is the most common cause of degenerative arthritis to affect the shoulder. Less common causes are rheumatoid arthritis, avascular necrosis (AVN), post-traumatic arthritis and rotator cuff arthropathy (a combination of severe arthritis and a massive non-repairable rotator cuff tear).

Non-operative treatment includes medications, cortisone injections, activity modifications and physical therapy. If symptoms of pain and limited function get to the point where non-operative treatment measures aren’t working, then shoulder replacement surgery can be a successful and reliable treatment option.

There are several different types of shoulder replacements. A hemiarthroplasty involves replacement of just the “ball” of the shoulder. This may be done if the glenoid (socket) has good cartilage, the bone of the glenoid is severely deficient or when the rotator cuff is irreparably torn. A total shoulder replaces both the ball and the socket. This procedure is performed when the “wear and tear” affects both sides of the shoulder joint. A reverse total shoulder may be indicated when advanced arthritis is associated with an irreparable rotator cuff tear.

The medical history, physical examination and radiographic studies such as Xrays, an MRI and sometimes a CT scan can help determine which specific procedure is necessary.

While in surgery, your surgeon will remove the diseased/damaged bone surfaces by using meticulous instruments. The surfaces of your shoulder are then replaced with metal on the humerus and plastic on the glenoid when a total shoulder replacement is performed.



Shoulder
Replacement

SCHEDULING AND PREPARING FOR SURGERY

Count Down Checklist

Once you have decided to proceed with surgery, there are a number of things that need to be taken care of before the day of the operation. Following is a checklist. For more specific information, please see the pages following.

- ☐ Select the date for the surgery.
- ☐ Stop smoking before your surgery.
- ☐ Have the necessary lab work done. Any difficulty in keeping your PAT appointments, please call the hospital, 585-2418.
- ☐ Have your history and physical done within 30 days of surgery.
- ☐ Have a preoperative office visit (optional) to ask questions and see a joint model.
- ☐ Report important observations or changes. If you have any changes in your physical condition, such as fever, sore throat, abscess, ulcers, nausea, vomiting, or diarrhea, and you question your readiness for surgery, consult your primary care physician to assess and treat the problem.
- ☐ Have any dental cleaning or other needed dental work done.
- ☐ Prepare your home and belongings to bring with you.
- ☐ Stop taking certain medications in the days before surgery. Medications may be taken as instructed by the hospital assessment nurse. If you are on medication for high blood pressure, your heart, or asthma and have not been instructed what to take, please call The Christ Hospital assessment nurses at 585-1720.
- ☐ 1 week before surgery stop blood thinner medications including Plavix, Vitamin E and Fish Oil. Obtain instructions for stopping Coumadin (warfarin).
- ☐ 5 days before surgery stop taking aspirin or aspirin containing medications and any non-steroidal anti-inflammatory medications (excluding Celebrex).
- ☐ 2 days before surgery take measures necessary to insure a good bowel movement the day before surgery. Do not drink any alcohol for 48 hours before surgery; it delays emptying of the stomach.
- ☐ The general rule is **DO NOT EAT OR DRINK ANYTHING** after midnight the night before surgery. As soon as you are awake and your stomach is not upset, you will return to your regular diet.
- ☐ The morning of surgery: You may shower, bathe, and shampoo before coming to the hospital. Remove any fingernail or toenail polish. Wear comfortable loose fitting clothes. Leave valuables, including jewelry, at home.

If you have any questions, please feel free to contact us at the following number:

Office: (513) 791-5200

Selecting a Date for Surgery

Your primary care physician (PCP) can help you weigh the risks and benefits of surgery in light of your general health. If you have a condition that is being treated by a medical doctor other than your PCP, you may want to discuss your surgery with this physician. You can choose a date with our office and we will schedule it at the hospital. We will also verify your procedure with your insurance company, and provide the hospital form for your pre-anesthetic physical examinations.

Necessary Pre-Operative Testing

About a week to ten days before your operation, common medical tests will be ordered and performed at the hospital where you will have your surgery. The hospital nurses will call to schedule these. The results give your surgeon, primary care physician and the anesthesiologist information they need to plan and manage your operation. We call these tests Pre-Admission Tests (PAT). The basic tests include an EKG of your heart if you are over 50 or an insulin dependent diabetic, and an analysis of blood and urine specimens. There is no special preparation for the tests. You should eat normally and take your current medications the evening before and the morning of your tests. Based on your age and medical condition additional tests may be requested. Occasionally special X-rays or CT scans may be required prior to surgery.

Within 30 days of surgery you will need a physical examination. A current medical history and physical examination are necessary for your to receive an anesthetic. Diseases such as diabetes and heart disease do not keep you from surgery, as long as they are under control. If you have any infection, (including bladder, prostate, kidney, gums, skin ulcers, or ingrown toenails) it should be treated and cleared up before undergoing surgery.

If you have multiple medical problems or a history of difficulty following anesthesia from a previous operation, our surgeon may ask that an anesthesiologist evaluate you prior to your day of surgery. In this case you would be scheduled for an anesthesia consult with your PAT.

Blood Replacement for Elective Orthopedic Surgery

We do everything we can to minimize blood loss during surgery. Your blood pressure is lowered to cut down on bleeding, and cut blood vessels are cauterized. For most routine shoulder replacement surgery blood replacement is **not** needed.

With larger more extensive surgeries, your surgeon may ask that you consider certain options in replacing some of your blood loss. If you are not anemic you

may be asked to donate one unit of your own blood (autologous blood) before surgery. If you are anemic, you may consider receiving a medication that stimulates your body to mature the blood cells it is already in the process of making. This prepares them to be released when your body needs them after your surgery.

Volunteer donor blood from the blood bank is donated by a member of the general public unknown to you. Potential donors fill out an extensive health questionnaire and the blood is rigorously tested. There are risks associated with receiving blood. Current data shows the risks and complications to be equal between storing your own blood and receiving it back, as compared to receiving blood bank blood. Sometimes, in emergency situations, even if you have stored your own blood, we may have to use volunteer blood if the amount of blood pre-stored for you is insufficient. We would only do so in a rare life-saving situation.

If you donate blood, this is done through the Hoxworth Blood Center by appointment only (513) 451-1910. Erythropoietin (Procrit) was approved by the FDA in 1996 for use with elective orthopedic surgery to help decrease the amount of blood bank blood needed for elective procedures. It is a hormone that helps regulate how quickly our bodies produce and mature red blood cells. This is only given to individuals with significant anemia prior to surgery.

Surgery and Your Current Medications

Traditional NSAIDS (non steroidal anti-inflammatory medications) should be stopped 5 days prior to surgery. The newer Cox-II NSAIDS (i.e. Celebrex) do not need to be stopped.

If you take aspirin or aspirin containing drugs such as Percodan, Excedrin or Anacin, these should also be stopped 5 days before surgery.

Vitamin E and Fish Oil Supplements need to be stopped 7 days prior to surgery.

Coumadin needs to be stopped at least 5 days prior to surgery and Plavix needs to be stopped 7-10 days before surgery. Please discuss this with your cardiologist or primary care physician first.

Pain medications without aspirin, like Tylenol, Darvocet, Vicodin and Percocet can be taken by mouth up to the night prior to surgery.

If you take medicines prescribed for high blood pressure, breathing, heart condition, seizures, or cortisone preparations, the hospital pre-surgical nurse or one of your physicians will instruct you on what to take the morning of surgery. Those who use insulin or an oral agent for diabetes also need special instructions.

Examples of Prescription and Over the Counter NSAIDs

Generic Name	Some Brand Names
Aspirin compounds (acetylsalicylate)	Anacin, Ascripton AD, Bayer BC Powder, Bufferin, Excedrin, Ecotrin, Zorprin
Non-aspirin salicylates	Arthropan, Disalcid, Magan, Trilisate
Diclofenac	Voltaren*
Fenoprofen	Nalfon*
Flurbiprofen	Ansaid*
Ibuprofen	Advil, Medipren, Motrin*, Nuprin, Rufen
Indomethacin	Indocin*
Ketoprofen	Orudis*
Meclofenamate	Meclomen*
Mefenamic acid	Ponstel
Naproxen	Naprosyn, Aleve*
Naproxen sodium	Anaprox*
Phenylbutazone	Butazolidin*
Prioxicam	Feldene*
Sulindac	Clinoril*
Tolmetin	Tolectin*

*Can affect liver or kidneys. Need to have blood tests periodically (CBC, Liver Function tests, serum creatinine) by your primary care physician.

Cox II Non-steroidal, **Celebrex**, **does not need** to be stopped prior to surgery.

Some Commonly Used Pain Medications

Pain Medicine	Generic or Other Names	Comments
Tylenol	Acetaminophen, APAP Phenaphen	*
Anacin, Bayer, Bufferin, Easprin, Ecotrin, Excedrin, Zoprin	Aspirin compounds	ASA, **
Codeine	Codeine	A, Rx, ***
Darvon	Propoxyphene	H, Rx, ***
Darvocet	Propoxyphene & APAP	H, Rx, ***
Emprin (with) Codeine	Aspirin and Codeine	A, Rx, ASA, ***
Fioricet	Butalbital with Tylenol	H, Rx, ***
Fiorinal	Butalbital with Aspirin	H, Rx, ASA, ***
Percodan	Oxycodone, Oxycodan	A, Rx, ASA, ****
Percocet, Roxicet	Oxycodone with Tylenol	A, Rx, ****
Talacen	Pentazocine + Aspirin	H, Rx, ASA, ***
Ultram	Tramadol	A, Rx, ***
Vicodin, Lortab	Hydrocodone with APAP	H, Rx, ***

Legend to Comments

ASA: contains aspirin
APAP: acetaminophen

A: addictive
Rx: needs prescription

*: degree of pain relief
H: habit forming

Smokers Should Know

Smoking shrinks arteries, decreases blood flow, speeds your heart rate, raises blood pressure and increases fluid production in your lungs. You will recover faster if you stop smoking before your surgery. Smoking is not allowed anywhere in the hospital.

Important Observations to Report Prior to Surgery

If your physical condition changes before surgery (for example, you develop a cold, persistent cough or fever) or if there is an important change to the skin where the surgery is to be performed, notify our office as soon as possible. An important change would be an open draining wound or localized area with swelling, redness, heat, tenderness or pain to pressure.

What to Bring to the Hospital

On the day of surgery, bring only what is essential for that day.

- ☐ Medical insurance card(s) (Medicare and/or other) and Prescription card.
- ☐ A list of your medication(s) including the name of each medication, its dosage and how many milligrams (mgs) and how often you take each one. Do not bring your own medications, unless instructed to do so by anesthesia. Doing so causes confusion. Nurses prefer to dispense all medication so that they know what you are getting.
- ☐ Blood donor card and tag or arm bands, if you have set up blood.
- ☐ A list of important phone numbers, including those of friends you might need to call while you are at the hospital.

If your surgery requires a planned hospital stay that will require an overnight stay, have your family or friends bring your other belongings the next day.

- ☐ This manual.
- ☐ Toiletries: Toothbrush, toothpaste, comb, etc.
- ☐ Eyeglasses, contacts, hearing aids, if needed, and their cases.
- ☐ Front closing mid-calf to knee-length robe with loose fitting arms. Avoid over the head styles.
- ☐ House shoes with non-skid soles, closed heel and toe. Gym shoes are fine.
- ☐ The hospital will provide you with a gown to wear in bed, but you may bring your own pajamas if you wish.
- ☐ Underwear and gym shorts or loose fitting pants.
- ☐ Do not bring credit cards, jewelry, valuable items, or more than \$5 in cash.

POTENTIAL COMPLICATIONS

Like most things in our lives, even the most minor of surgical operations carries some risk of a complication occurring. As you read this you need to keep in mind that shoulder replacement surgery is very successful and complications are relatively uncommon considering the complexity of the surgery.

With any surgery there are the risks of anesthesia, of bleeding too much and of infection occurring. With shoulder replacement the most serious complication is infection and most important long-term complication is loosening of the prosthesis.

Anesthetic complications can occur. When your anesthesiologist sees you before the surgery, the risks involved with the type of anesthesia you will have can be discussed and any concerns addressed.

Bleeding complications usually are due to the fact that small blood vessels are cut or a larger blood vessel is injured during the course of the operation. All care and precautions humanly possible are taken to avoid blood loss or injury to surrounding tissues. The small blood vessels are cauterized to control bleeding. Injuries to larger vessels are repaired. Your blood pressure and the amount of blood loss are monitored continuously. Your blood count will be checked prior to surgery as well as the day after surgery.

Any time our skin is cut, bacteria can enter our bodies and are fought off by our immune system. Despite routine surgical procedures, infection from surgery of any type is always a risk. Special precautions are taken to avoid introducing an infection at the time of joint replacement surgery: a special ventilation system is used in the operating room, and antibiotics are given to you before and for 24 hours after the operation.

Some individuals are more prone to develop infections: if their immune system is impaired by certain medical conditions, if they need to take certain medications that delay wound healing, if they have had an infection in the affected joint or anywhere else in the body at the time of surgery. Infections of the bladder, prostate, kidneys, gums and skin ulcers should be cleared up by appropriate treatment well before the day of surgery.

The artificial joint can become infected many years after the operation. Bacteria can enter and travel through the blood stream from a source elsewhere in the body, such as from an infected wound, through our mouths during dental procedures, or a gall bladder infection.

Blood clots in the veins of the legs and/or arm are very uncommon complications after shoulder replacement surgery. The speed at which our blood clots varies from individual to individual. If a clot develops and remains in the leg, they are a

relatively minor problem. Occasionally, they dislodge and travel through the heart to the lungs (pulmonary embolism). This is a potentially serious problem, since (very rarely) death can result from embolism. Early mobility, and attention to swelling are all aimed at avoiding blood clots from forming or progressing. Blood clots can occur despite these precautions. They are usually not dangerous if appropriately treated, but may delay your recovery or be a cause for readmission once you have gone home.

Loosening of the prosthesis from the bone is the most important long term problem. How long the bond will last depends on a number of factors. Ongoing research and technological developments continuously work at advancing what is known about fixation of the components and how best to accomplish it. Some of the factors are influenced by what the patients do. We know that excessive force on the implant may cause the bond to loosen.

Fracture of the bones of the shoulder rarely occurs during shoulder replacement. If it occurs it is more common during revision surgery. One of the bones can fracture later from any trauma, such as falling down stairs.

The primary indication for shoulder replacement is pain relief. Regaining the ability to do things and increased motion are added benefits when they occur. Ending up with a stiffer shoulder is an undesired result. Some individuals regain their motion with little difficulty. Others are stiff and sore and have to work harder and longer. In rare cases further surgery is necessary to free up scar tissue that develops after surgery.

Instability after shoulder replacement is uncommon but can occur due to soft tissue imbalance or to malposition of the components from loosening. If the soft tissue imbalance is due to a tear in the rotator cuff or from loosening of the components then further surgery may be necessary.

Residual pain and stiffness can occur. This is pain that lasts beyond your recovery. The completeness of pain relief and the degree of mobility reached is partially determined by the extent of your shoulder problem before surgery.

In virtually all cases the surgery will make a significant improvement in the pain and function of your shoulder. While there is always a risk of complication, every effort will be made to prevent them. Should you develop a complication, we will give every effort to ensure a good result. In most cases, you will have a pain free shoulder and it will feel “normal.” This transition to normalcy takes 9 to 12 months.

WHAT TO EXPECT AT THE HOSPITAL

Shoulder replacement surgery is performed on an inpatient basis. You will be admitted to the hospital on the same day as the surgery. A typical hospital stay is 2-3 days. You will arrive at the hospital prior to the procedure to talk with the anesthesiologist. Usually the anesthesiologist will give you an injection of numbing medicine around the nerves that give sensation to the shoulder. This helps diminish post-operative pain. See section below on interscalene nerve blocks for more information. The anesthesiologist may leave a small catheter in place around the shoulder to allow a continuous dose of numbing medicine to the nerves for 2 days. The advantages of this are less pain and less narcotic side effects. The disadvantages are that the procedure is done prior to surgery and the arm/hand is weak until after the block wears off. In addition to the nerve block, general anesthesia is used during surgery. Oral pain medications and/or a PCA (patient controlled analgesia) may be used as well. Ask your surgeon or anesthesiologist for more information.

Before going to the operating room, you will be given sedatives. You will be taken to the operating room about an hour before the operation for anesthesia and necessary procedures.

After surgery is completed, you will be placed in your bed, which has been prepared and brought to the operating room for you. Then you will be taken to the post-anesthesia recovery room until you wake up. The total time spent in the operating and recovery room will depend on the type of surgery you have.

When the operation is over, your surgeon will meet with relatives or friends in a consultation room at the surgical waiting area to give them a progress report.

Anesthesia and Post-Operative Pain Management

For your surgery your anesthesia is given by an anesthesiologist from The Christ Hospital. Operations as involved as hip, knee and shoulder replacements require strong medications in order to relieve postoperative pain. Your surgeon may order a nerve block or PCA machine to assist with your postoperative pain control. Most patients meet with the anesthesiologist at the hospital on the day of their surgery. Prior to this time your history and physical exam, blood work, EKG and chest x-rays have been reviewed. Questions and concerns about your anesthesia or previous anesthesia experiences can be discussed with the anesthesiologist. The anesthesiologist will discuss anesthesia options with you, as well as help choose a method for postoperative pain management. They will continue to monitor and adjust pain modalities as needed after surgery. An anesthesiologist is available 24 hours/day if problems should arise.

Interscalene Nerve Block Information

Your surgeon may request this nerve block for post-operative pain relief in surgical procedures involving the shoulder and upper arm.

Benefits: Significant to total pain relief following extensive surgeries involving the shoulder and upper arm. Additional benefits include: decreased pain medication requirements, reduced incidence of nausea and vomiting, lighter general anesthetic and potentially early discharge home.

Normal course: A numb and often immobile shoulder and upper arm is expected for approximately 8 - 12 hours after the surgery, but can last up to 24 hours in some cases. The duration of the numbness can vary and is dependent on the type of local anesthetic used, additives and individual variation. In certain cases, the anesthesiologist will leave a catheter in place allowing for a continuous dose of local anesthetic to be administered for up to 2-3 days after surgery.

Once the numbness starts to wear off, the discomfort from surgery will intensify progressively over the next 1-2 hours. Therefore we recommend starting oral narcotics (e.g. Vicodin or Percocet) and anti-inflammatory medications (e.g. Ibuprofen or Motrin) as soon as oral medications are tolerated. These medications should be taken on a scheduled basis, allowing for a smooth transition from the nerve block to oral medication based pain relief.

Normal and Expected side effects: A droopy eyelid on the affected side and voice hoarseness can last as long as the local anesthetic effect. Local anesthetic effect varies, but is typically between 8 and 24 hours. Mild sensation of shortness of breath may be noted particularly in patients with respiratory disease

Risks: Failed block, bleeding, infection, reaction to local anesthetic including seizure and cardiac arrest, spinal block, epidural block, collapsed lung, peripheral nerve injury or persistent tingling sensation are all potential risks. Fortunately, these serious side effects and complications are uncommon and are lessened by placement of the block with the use of a nerve stimulator and sometimes ultrasound guidance. Please discuss any concerns regarding these risks with your anesthesiologist.

Additional recommendations: Please keep the operative arm and elbow well protected and padded for the duration of numbness. This will prevent unrecognized pressure from being placed on the arm that could result in nerve injury

An anesthesiologist will attend to any pain-related problems you might have on an as-needed basis. Due to the extra time and personnel that postoperative pain management requires, there is an additional charge for these services. If you are concerned with insurance coverage, please contact your insurance company

prior to surgery. Feel free to call and discuss any concerns that you might have regarding post-operative pain relief. The phone number for medical questions is 585-2482, 8 a.m. to 4 p.m., Monday through Friday.

What to Expect After Surgery

When you wake up in the recovery you will be in a sling. Many people feel cold when they wake up after surgery so warm blankets are available if you need them. Monitors will measure your blood pressure, heartbeat and breathing. You will be in the recovery room for about 2 hours and then move to the orthopedic floor.

After 24 to 48 hours the nerve block and/or pain pump (PCA) will be disconnected. Oral pain medication will then be ordered. You must ask for these. Depending on the medication used, they can be taken every 4 to 6 hours. When you are discharged home you will be given prescriptions for pain medications.

A sling is worn for 4 to 6 weeks. Physical therapy is usually started the first day after surgery. You should perform these exercises 4-5 times per day. Most patients are able to perform simple activities such as dressing and grooming within 2 weeks of surgery.

Caution needs to be taken to avoid using the arm to push up from a chair or out of bed for at least 6 weeks.

Activity/Rehabilitation

The physical therapist will instruct you about gentle, passive range of motion exercises on the first day after surgery. The arm can come out of the sling several times a day to perform these light exercises. Over time additional exercises to include active assisted range of motion and use of a pulley will be added. The one motion that needs to be avoided is externally rotating/twisting the arm at the side for the first 4-5 weeks after surgery. The sling is used particularly at night for 1 month after surgery to protect the healing muscles and tendons around the shoulder.

Preparing To Go Home

You will be allowed to go home when your temperature is normal, when you are able to get in and out of bed, and when you can go to the bathroom by yourself. Most patients reach these goals within 1-3 days.

It is better if someone can be at home with you for at least portions of each day to assist you with getting things, meal preparation, shopping, etc. Constant nursing care is rarely needed at home.

Before you go home, it is important that many of the things that have been discussed or mentioned are now actually well known to you and implanted in your mind. You need to know:

- ☐ How to reach us in case you have concerns.
- ☐ When and where your follow-up appointments are.
- ☐ What medications to take.
- ☐ How to care for your incision. If it has drainage, know how to take care of it and the supplies with which to do so.
- ☐ What exercises you are to be doing whether on your own or with a therapist.
- ☐ Things to report to us: fever, change in pain, new drainage from your wound or change in the character of the drainage you are having.

WHAT TO EXPECT AFTER YOU GET HOME

Pain Relief Once Home

Pain medications come in two categories, those that can be called in and those that require a prescription. Your prescription on discharge from the hospital may have been the type of pain medication that requires a written prescription to be taken to the pharmacy.

When you get down to just over one day's worth of medication you may call your pharmacy for a refill. Please allow 24 hours for refills. If you do not have enough medication to last the weekend, you may call by noon on Friday to assure a refill before the day is over. Narcotic pain medicines are not filled by the on-call physician over the weekend. There are some medications, such as Percocet, that cannot be called in and require a written prescription that someone will need to pick up at the office for you during normal business hours.

As you get farther out from your surgery, your need for pain medicine will decrease. Instead of taking two tablets at a time, you may find taking one is enough. If two is too much and one is not enough, look at the label of your bottle. The letters "APAP" indicate that your medicine has acetaminophen (Tylenol) in it. The number after these letters indicates how much acetaminophen is in there. For example, 5/500 means you have 5 milligrams (mgs.) of the narcotic pain medicine and 500mgs of acetaminophen. You may

find that taking one prescription pain pill with one acetaminophen tablet helps more than one pain pill by itself. Narcotic pain medicine is very constipating and your stomach will be much more comfortable when you take less of it.

It is important to take the medication as prescribed. Taking more tablets then directed at one time or at more frequent intervals causes some concern. The concern would be that you could be overly medicated, have a fall and injure your surgery as well as get too much acetaminophen. When you have pain pills with 500 mgs acetaminophen, you can take 2 tablets up to 4 times a day. If the content is 325 mgs., you can take up to 12 tablets in 24 hours. Too much acetaminophen can affect your liver.

For shoulder replacement surgery it is important to take your pain medication for your physical therapy. Patients usually cut back to taking pain medication for therapy and for sleep at night. Getting back on your arthritis medication helps decrease the amount of soft tissue swelling and warmth, while you are working on stretching for your motion, as well as your need for narcotic pain medicine.

Ice is very helpful in pain control. Applying an ice pack for 20-30 minutes at a time can give significant pain relief. You want to put a towel between your skin and the ice pack.

A large bag of peas or corn conforms nicely and can be used and reused several times. After 20-30 minutes your circulation goes back to normal and the therapeutic effect is lost. Putting ice on and off frequently is better than keeping it on continuously around the clock.

Incision Care After Total Joint Replacement Surgery

Everybody heals at a different pace. This pace can be affected by some drainage (seepage) from your incision for 7-10 days. It is also not uncommon to have bruising around your shoulder and throughout your arm.

As long as there is any drainage from your incision, your surgeon wants the dressing (the gauze covering) changed at least once a day. Remove the old covering and wash your hands well, drying them on a clean towel before proceeding with your wound care. Using a soapless hand gel for handwashing is fine. Once the incision is dry for 4-5 days it is okay to shower, even if the staples are still there. Let the water run over the incision without scrubbing it and then pat it dry with a clean towel.

No creams or ointments should be applied on top of the incision until all of the scab has come off naturally. Usually, all the scab has come off by about 4 weeks from surgery. At this time you may use any skin preparation you prefer to

moisten the skin or soften the scar. Anything with Vitamin E in it is very helpful for both. Also you may resume water exercise or soaking in a bath tub once all the scab is off.

Problems You May Encounter at Home

Drainage from the wound: It is common for a small amount of blood to show up on the outside of the dressing. If it appears excessive you may call us.

High Fever: It is normal to run a low grade fever for 2 to 3 days after surgery. If your temperature is above 101.5 it may be an early sign of an infection. If you get 2 readings 3 hours apart of more than 101.5 then you need to notify us.

Increasing pain: Once the nerve block wears off the shoulder will be particularly sore over the first several days after surgery. You should start taking your oral pain medication prior to the block wearing off so you are not trying to “catch up” to the pain. Applying ice will also help dull the pain.

Shortness of Breath or Chest Pain: Although this can occasionally be the side effect of your pain medication or the nerve block you should never ignore these symptoms and should seek medical attention immediately.

Swelling in your arm/hand; This is very common after shoulder surgery. You should frequently wiggle and make a fist with your fingers.

Staples and Subcutaneous Stitches: Staples hold the outer skin edges together. Your surgeon leaves them in place for 10-14 days. Toward the end of this time period you may notice some redness in the skin around each staple. This is common and considered a normal reaction. If the redness should extend beyond a half inch from the staple and there is increased tenderness, rather than decreased, then you should report it. The occurrence of drainage from the incision does not change when the staples are removed.

Underneath the skin the tissue is held together with a dissolvable stitch material. This material doesn't start to dissolve until around 4 weeks from surgery. So when the staples are removed from the skin, the surgical wound is still held together by this suturing underneath. At each end and sometimes in the middle of the incision there is a knot of this dissolvable stitch material. If this dissolves and a bubble of liquid ends up close to the surface of the skin as the surgical wound is healing, a bump forms and it may become tender. Usually the liquid gets absorbed and the tenderness goes away. Occasionally the skin opens a little and the liquid drains out. This liquid is white from the dissolved material and has startled some to think that it is pus. If this occurs, keep the area clean and covered. To clean the area you can mix half strength hydrogen peroxide (that is half water and half peroxide) and pour it over the area several times. You pour

some, let it bubble up, pour some more, let it bubble up and then do it a third time. Once it stops bubbling, pat dry with a sterile gauze pad or roll it dry with Q-tips (cotton tipped swabs) from a freshly opened package. Roll once across the open area with each end of the swab. The opening and the skin around the opening (at least a half inch margin around the edges) should be painted with povidone iodine solution and allowed to air dry on the skin. Then cover the area with a dry gauze square to keep it clean. You want to clean and cover the area at least twice a day.

Sometimes there is a piece of stitch material or thread that is visible. If any thread can be seen it needs to be removed. Once this material is exposed to the air it stops dissolving. It will act as an obstruction for the skin to close. Once removed, the area can resume its healing process. It still needs to be cleaned and re-dressed at least twice a day until dry for two changes and then can be left open to air. If you are going to outpatient physical therapy, they may have suture sets there and can help get the stitch material away. Otherwise we have you come to the office for a wound check and be sure that all the stitch material is out so the skin will heal.

Doctor's Visits and Follow-up Care

10-14 days after surgery: There are staples in the skin that are typically removed at your first office visit between 10-14 days after surgery.

6 weeks after surgery: X-rays are taken to check your healing. Most patients are still working on getting their range of motion with physical therapy. The shoulder will still feel weak but strengthening exercises aren't started until 3 months after surgery.

You will typically return to the office on a **monthly basis for the first 3-4 months.**

Follow-up subsequent to this will depend on your progress with rehabilitation. You will need x-rays on an **annual** basis to ensure that your shoulder replacement is functioning properly.

Driving

Driving is individual and depends somewhat on which side is your dominant arm. You will not be able to use the affected arm to drive until approximately 6 weeks after surgery.

Returning to Work and Recreational Activities

You will probably not return to work for 8-12 weeks after surgery. Quite a few patients do return earlier, depending on the nature of their work and how flexible their workplace is for initially returning on a part time basis. We generally tell employers 8-12 weeks, but you may return sooner if you are physically ready. It is easier to return to work sooner than to request more time off. Discuss this with your surgeon if you need to be back to work sooner. Any paperwork required by your employer may be faxed to our office at (513) 791-5229. Please allow 5 business days for these to be completed once a \$20.00 fee has been collected.

Most patients can return to at least a partial level of athletic/recreational activity including golf, swimming, tennis and fishing by 4 to 6 months after surgery.

FREQUENTLY ASKED QUESTIONS:

1) When do I need to take antibiotics?

For all total joint patients it is advised to protect the joint for the first two years after surgery whenever they undergo a procedure that causes bleeding. People who have conditions that challenge their immune system such as diabetes, cancer patients on chemotherapy or radiation therapy, hemophiliacs, lupus, rheumatoid arthritis and anyone who has had a previous joint infection should take antibiotics for the rest of their lives.

Antibiotics should be taken one hour prior to any dental work, including routine teeth cleaning. This does not include daily brushing. Urologic (bladder) procedures for patients identified as at risk for infection do need antibiotic coverage. Scopes of the stomach and colon have been categorized as low risk events and do not necessitate the use of prophylactic antibiotics.

2) I am finished with physical therapy. How long do I need to keep doing my home exercises?

A routine of regular exercise is an important part of good health maintenance. Continuing the range of motion exercises will help to relieve stiffness that comes with periods of inactivity. Strengthening exercises are the ones you do with light weights or rubber bands to make your muscles work harder. If you have access to exercise facilities or water exercise classes then you can progress to doing your exercises there once you are done with formal physical therapy. These exercises should be continued for at least a year.

3) My shoulder feels numb around the incision. What happened?

When the skin incision was made, the small nerves in the skin were cut. This usually subsides within 9-12 months.

4) My arm and hand are swollen. Medication and ice don't seem to make a difference.

Swelling is normal part of the body's healing process after surgery. Moving the elbow, wrist and hand can help. You should wiggle your fingers and make a fist frequently through the day. If the swelling is getting worse rather than better then you should contact your doctor. A blood clot (deep venous thrombosis) is a very rare complication after shoulder surgery.

5) I can't sleep at night, my shoulder is uncomfortable.....What can I do?

It is common for your shoulder discomfort to be more noticeable at night. Sleeping in a recliner or propping your back and head up with several pillows can

help. Using a bag of frozen vegetables or a Cryo-Cuff (specialized ice pack) for 15-20 minutes at a time can help. Place a towel between the ice pack and skin.

6) I haven't had a bowel movement since surgery and it's been 5 days now. Should I be worried?

Anesthesia and post-operative pain medicine slows your stomach down tremendously. You can counteract this by drinking plenty of fluids, taking a stool softener and, if needed, a laxative. Before you worry about it, ask yourself how your stomach feels and if you have been eating a normal amount of food since surgery. Chances are your appetite has not returned to normal yet and you have been eating less than usual. The pain medicine also decreases your appetite. Take the pain medicine when you need it rather than every 4 to 6 hours around the clock just "in case" you need it.

7) My incision looks red. Is it infected?

Localized redness around the incision is common and is considered a normal reaction. If the redness should extend beyond a half inch from the staples and there is increasing pain, tenderness or drainage then there is a possibility of infection. If you should develop these symptoms then please contact us.

8) I have a fever. Do you think I am getting an infection?

Low grade fevers (101.5 and below) are fairly common in the first few days after surgery. These are a reaction to the anesthesia as well as the body's inflammatory/healing response that develops after surgery. If you feel you have a fever, take your temperature. If you get two readings on a thermometer, at least 3 hours apart, of 101 or more then you will need to notify us. If you need to call, we will want to know when you last took your medication and what it is you are taking.

Initial Exercises (To start the day after surgery)



Pendulum Exercises—**with the arm down at the side, you gently swing the hand forward and backward, then side to side, and then clockwise and counterclockwise.**



Passive forward flexion
to **90 degrees**



Passive forward flexion
to **90 degrees (alternative)**

Exercises After 6 Weeks



External Rotation: initially to the neutral position but can be gradually increased as tolerated after 6 weeks.



Wall Walking: for forward flexion. Start after 6 weeks and increase as tolerated.



Towel Pulls: Start after 6 weeks and increase as tolerated.



Biographical Information

Patrick G. Kirk, M.D.

Dr. Kirk is a board certified Orthopaedic Surgeon with primary interest in the surgical and non-surgical management of arthritis of the hip, knee and shoulder.

A graduate of Northwestern University and Rush Medical College in Chicago, he completed his Orthopaedic Residency at the Henry Ford Hospital in Detroit. Additional specialty training was at the University of Michigan, and then as a Fellow in Joint Replacement Surgery at the University of Western Ontario. There he received the Maurice Mueller Scholarship for the study of Diseases of the Hip.

Since starting practice Dr. Kirk has performed over 5000 hip and knee replacements. His current interests include minimally invasive hip and knee replacement surgery. Dr. Kirk has published numerous articles on hip and knee replacements and other aspects of orthopaedics, and has authored a textbook chapter on Revision Total Knee Replacement Surgery.

He is a Fellow of the American Academy of Orthopaedic Surgery, a member of the American Association of Hip and Knee Surgeons, the Mid-American Orthopaedic Society, the Ohio Orthopaedic Society, the Cincinnati Orthopaedic Club, the Cincinnati Academy of Medicine, and the Ohio State Medical Society.

He currently serves on the Orthopaedic Executive Committee of The Christ Hospital. He is on the Board of Trustees of the Arthritis Foundation, Ohio River Valley Chapter. He also serves on the Board of Trustees for the Cincinnati Symphony Orchestra.

Dr. Kirk and his wife, Mary, have two children, Margaret and Caroline.



Biographical Information

on

Dr. Lim is a board certified and re-certified orthopaedic surgeon with primary specialty interests in joint replacement, reconstruction and trauma. Dr. Lim is currently the Chairman of the Orthopaedic Department of The Christ Hospital of Cincinnati.

He was born in the Philippines and obtained his undergraduate degree at the University of the Philippines in Manila. He completed his medical education (MD cum laude) at the University of the Philippines-College of Medicine in 1977. Following a five-year Orthopaedic Surgery Internship and Residency program at the University of Cincinnati Medical Center, additional training included an AO Trauma Fellowship in Hannover, West Germany and Davos, Switzerland, and a second Fellowship at the University of California, San Francisco – San Francisco General Hospital. He then returned to join the faculty at the University of Cincinnati. From 1992 to 2002 Dr. Lim served as Vice Chairman and Associate Professor of the Department of Orthopaedic Surgery and Director of the Division of Orthopaedic Trauma at the University of Cincinnati Medical Center.

During this period, Dr. Lim had a busy clinical practice at University Hospital, Christ Hospital, and Good Samaritan Hospital. He was responsible for orthopaedic residency education and was actively involved with orthopaedic education in the Philippines where he returned (and continues to do so) several times each year to volunteer his time and service. (See Philippines Link)

Dr. Lim has published numerous articles on orthopaedics and related topics. He continues to be an invited lecturer for educational courses throughout the United States and Asia. In 1997, he completed a Masters of Business Administration at Xavier University in Cincinnati (MBA), as well as a Physician Leadership Program through the Health Alliance in Cincinnati. In the clinical practice of orthopaedic surgery, Dr. Lim has also briefly practiced in Marietta, Ohio (1989-1992) and Richmond, Indiana (2002-2005).

Dr. Lim is a Fellow of the American Academy of Orthopaedic Surgery and an Examiner for the American Board of Orthopaedic Surgery. He also serves as an editor for the Journal of Trauma and continues to be a volunteer Associate Professor at the University of Cincinnati Department of Orthopaedic Surgery. He is a member of the Indiana State Medical Association, Orthopaedic Trauma Association, and other orthopaedic-related organizations, American Orthopaedic Association.

In June 2006, Dr. Lim returned home to Cincinnati to resume his orthopaedic surgery and joint replacement practice at The Christ Hospital. He maintains patient offices at The Christ Hospital MOB and the Jewish Medical offices in Kenwood, Cincinnati, Ohio.

Dr. Lim resides in Cincinnati, Ohio with his wife, Julia, and their three children, Elizabeth, Meredith, and Edward.

The Christ Hospital
2139 Auburn Ave
585-2000

Your Pre-Admission Tests (PAT) are done within 7-10 days prior to your surgery. The Christ Hospital will call and schedule your PAT appointment. An assessment nurse will review your medications and instruct about medications the morning of surgery. Written instructions are given at your PAT visit or faxed to your primary care physician if that is where your PAT is being done. You can reach the assessment nurses at 585-1720.

For PAT, you come to Suite 130 of the Medical Office Building. If you need to contact the PAT desk, their number is 585-2880 or 585-2881.

As results come in from your lab tests, a copy is sent to your surgeon's office. If there are any abnormalities that need medical attention, your surgeon's office will contact your medical doctor.

Changes in EKG's may require a consultation with a cardiologist before an anesthetic can be given. For this reason, it is a good idea to have your tests done earlier rather than within a day or two of your surgery.

If you need to reach Christ Hospital PAT, their number is 585-2418.

The day of your surgery, you check in at Same Day Surgery, B level. You and your family should park on B level of the Same Day Surgery Garage on Mason Street. Directions are on your instruction sheet from the hospital.

There is a Family Surgical Lounge where your family may wait and someone will guide them to it. When your surgery has been completed, your surgeon will come to the lounge and speak with them in one of the consultation rooms. If you need to contact the Family Surgical Lounge, the telephone there is 585-3238.

Once your vital signs are stable and your room is ready, they will notify your family that you have been moved to your room. Your family may see you once you have been transferred to your room. Our patients generally go to the Orthopaedic floor, which is 2 South (585-2553).

Maps and Directions

Driving Directions

From the north (I-75 South)

Take I-75 South to Exit 7, Norwood/Route 562. Take 562 East to I-71 South to the Taft Road exit. Continue on Taft (a one-way street) to the fifth traffic light. Turn left onto Auburn. The hospital entrance is at the third traffic light on the right.

From the northeast (I-71 South)

Take I-71 South to the Taft Road exit. Continue on Taft (a one-way street) to the fifth traffic light. Turn left onto Auburn. The hospital entrance is at the third traffic light on the right.

From downtown (I-71 North)

Take Reading Road-Eden Park Drive exit (on left). Take the Eden Park Drive- Dorchester lane (right lane) of that exit. Turn left at traffic light onto Dorchester. At top of hill, turn right onto Auburn. Hospital entrance is on the left at the second traffic light.

From downtown (Main/Vine/Elm)

Take Main, Vine or Elm north; turn right onto Liberty. Turn left onto Sycamore. At top of hill, turn left onto Auburn. Hospital entrance is at second traffic light on the left.

From Kentucky (I-75)

Take I-75 North to I-71 North to the Reading Road-Eden Park Drive exit (on left). Take the Eden Park Drive- Dorchester lane (right lane) of that exit. Turn left at traffic light onto Dorchester. At top of hill, turn right onto Auburn. Hospital entrance is on the left at the second traffic light.

From Kentucky (I-471 North)

Take I-471 North to Liberty Street exit (third exit past bridge). Take Liberty to the first traffic light after the exit and turn right onto Sycamore. At top of hill, turn left onto Auburn. Hospital entrance is at the second traffic light on the left.

Parking

Parking is free in the visitor garage adjacent to the hospital. Enter the garage from the Patient Tower entrance on Auburn Avenue. Park on any level except Level A, which is reserved for physician parking. To reach patient floors, enter the hospital at the Patient tower entrance. To reach admitting, testing or surgery, enter the hospital at the courtyard Atrium entrance. You can reach the medical office building from any level of the garage at entrances located near the Patient tower entrance.

If you'd like more information or directions from another location, call 585-1200.

Valet Parking

The Christ Hospital is offering a new valet service for our guests. We have teamed-up with parking solutions to offer valet parking services for \$3. This service is available from 6:30 a.m. to 6:30 p.m. The last car will be parked at 4 p.m. so all of the cars can be returned by 6:30 p.m. As always there will not be a charge for self service parking.

Local Street Map

