

Your Guide to **Shoulder Replacement**



Welcome to The Christ Hospital

Thank you for choosing The Christ Hospital for your orthopaedic care. Our mission is to provide you with the finest patient experience, with the utmost commitment to your safety and your satisfaction.

If at any time during your stay, there is anything we can do for you, please do not hesitate to ask.

This booklet will provide you with valuable information regarding preparation for your shoulder replacement procedure. Please ensure you view our additional resources to learn about what to expect upon your arrival for surgery at the hospital, and what to expect once you have returned home.

To help guide you throughout your joint replacement process, we have a dedicated Orthopaedic nurse navigator. Should you have any questions regarding your Pre-Surgery testing, discharge planning or during your time at the hospital, please contact our Navigator at **513-557-4882**.

Again, thank you for choosing The Christ Hospital for your orthopaedic procedure.



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Parking for The Joint & Spine Center

The Christ Hospital offers a number of free, convenient parking options including the P1 and P3 parking garages and P2 parking lot. For easiest access to The Joint & Spine Center, we recommend parking in P1 or P2. To get to either P1 or P2, turn off of Auburn Avenue onto Huntington Place or Mason Street.

In addition to self-parking, valet service is available for a small fee at The Joint & Spine Center and the Medical Office Building at the Mason Street entrances from 8 a.m. to 4 p.m. Please see the valet attendant for assistance.

P1

PARKING FOR:

Main hospital
Joint & Spine Center
Medical Office Building

ACCESS:

Turn from Auburn Ave. onto Huntington Place or Mason St. From the P1 Parking garage, take the skywalk on Level 1 toward the hospital. Turn left at the end of the skywalk into The Joint & Spine Center.

CLEARANCE: 8'

P2

PARKING FOR:

Joint & Spine Center

ACCESS:

Turn off of Auburn Ave. onto Huntington Place or Mason St. From the P2 parking lot, cross Mason St. and enter The Joint and Spine Center main entrance on Level C.

VALET

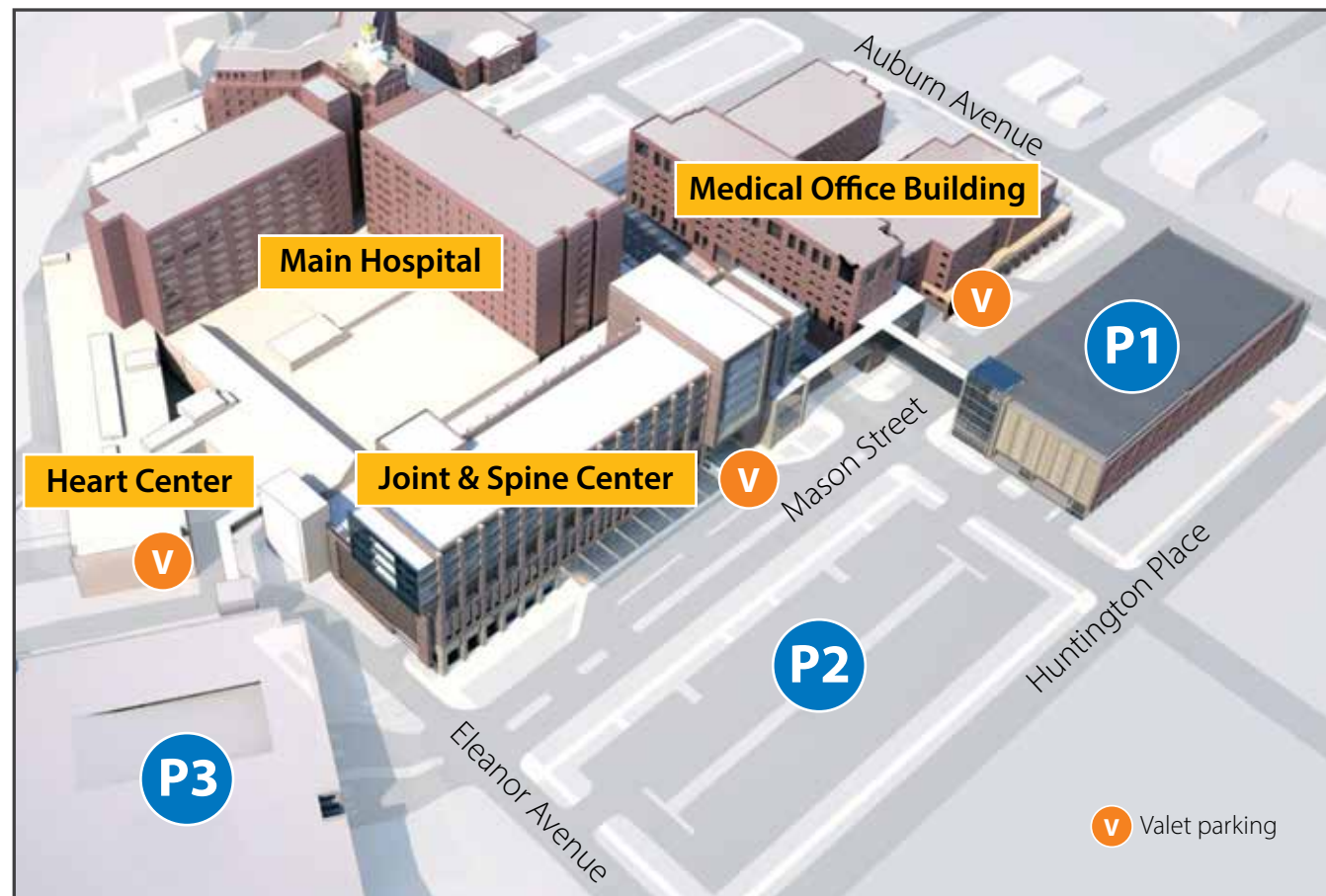
PARKING FOR:

Joint & Spine Center

ACCESS:

Turn off of Auburn Ave. onto Mason Street and proceed through the first Stop sign. Valet will be on the right in front of The Joint & Spine Center.

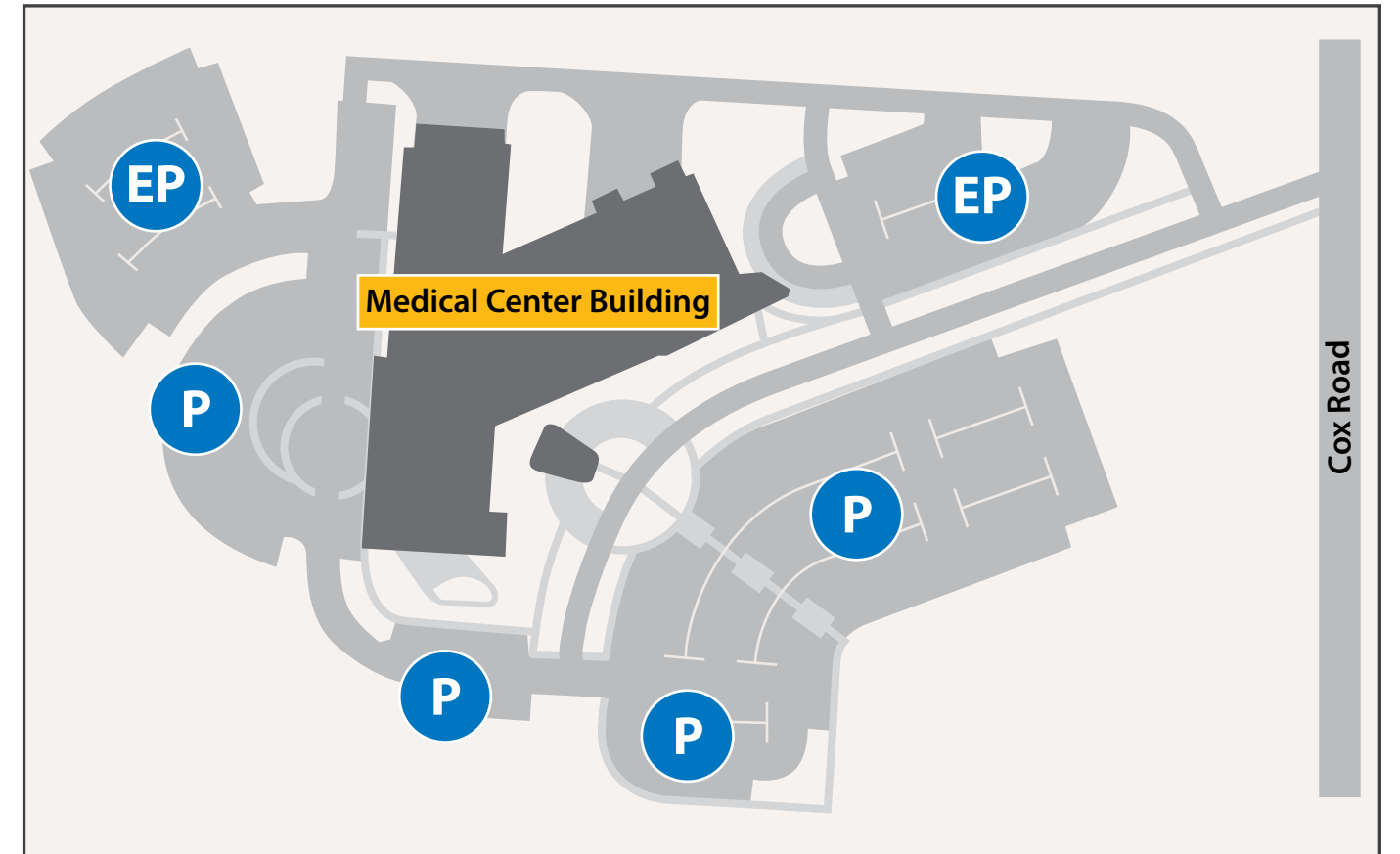
For assistance with directions,
contact Patient & Guest Services at
513-585-1200
or visit TheChristHospital.com.



Parking for Liberty Township

Parking for Liberty Township – The Christ Hospital Medical Center – Liberty Township, located at 6939 Cox Road, offers outstanding services and patient experiences to the fast-growing Butler County community of Liberty Township.

The parking at Liberty Township Medical Center is free, convenient, and easy to access. There are numerous parking spaces in a flat lot directly in front of the building, marked on the below image as "P". Additionally, there is a drop off area directly in front of the front doors.



Parking Spaces:

- P** Public parking: 283 spaces, 28 handicapped parking spaces
- EP** Employee parking: 151 spaces, 8 handicapped parking spaces

Pre-Surgery Checklist

Prior to your surgery, there are a number of preparations that you should make to help ensure a positive outcome. Please review this checklist carefully. If you have any questions about this Pre-Surgery Checklist or about your procedure, please contact us at **513-557-4882** or your surgeon's office.

ONE MONTH OR MORE PRIOR TO SURGERY

Confirm the date for the surgery. This date will generally be scheduled through your surgeon's office.

The date of your surgery is _____ at _____ AM/PM.

Stop smoking. It is important to stop smoking at least one month prior to your surgery. 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 prior to your surgery.

WITHIN 30 DAYS PRIOR TO SURGERY

Have a Pre-Surgery office visit with your surgeon to ask questions and see an example of the joint implant that will be used in your surgery. This may be a required visit or an optional visit, depending on your surgeon's requirement.

Attend Pre-Surgery Joint Replacement Class

Call **513-557-4882** or e mail jointcare@thechristhospital.com for a virtual Total Joint Class link.

Have any dental cleaning or other needed dental work completed

Dental procedures, especially routine cleanings, often result in bleeding of your gums. This can allow bacteria in the mouth to enter the bloodstream. Normally this is not a problem as your body's defenses fight off the bacteria in the blood. However, if you have a new artificial joint, it can become infected by the bacteria that have entered your bloodstream in this manner. While the incidence of infection after joint replacements is very low, this can be a very serious situation if it does. To prevent this from occurring, you should have a thorough dental checkup and cleaning before your surgery. If your dentist recommends any additional procedures these must all be done prior to your surgery as well.



Pre-Surgery Testing

Your Pre-Surgery Testing should be done within 14 days prior to your surgery.

The Christ Hospital will call and schedule your testing appointment. If you need to speak to the scheduler, please call **513-585-2418**. If testing is not completed within 3 business days prior to surgery, the surgery may be delayed.

The Christ Hospital has several Pre-Surgery Testing locations throughout Greater Cincinnati. While some Pre-Surgery testing may be done at your primary care physicians' office or another laboratory, some testing may need to be completed by a Christ Hospital testing facility. In order to streamline testing and minimize the need for multiple testing visits, we recommend patients call the Pre-Surgery Testing Scheduler at **513-585-2418** to coordinate required testing. This should be done after you have been given the date and time of your surgery.

A history and physical should be completed within 30 days of surgery with your primary care provider. If you see a cardiologist, please obtain clearance from that physician as well.

A current medical history and physical examination are necessary for you to receive an anesthetic. Diseases such as diabetes and heart disease do not keep you from surgery, as long as they are under control.

The physical may include an electrocardiogram (EKG) of your heart beat if medical indicated 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 your surgery.

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.

Blood Type/Screen tests must be performed at a Christ Hospital testing facility prior to the day of surgery. Note, a Christ Hospital physicians' office does not qualify as a testing facility.

Nasal Cultures must be completed prior to the start of surgery. We prefer this test to also be done at a Christ Hospital testing facility.

Some conditions may make the risk of joint surgery too great (chronic infection or a recent heart attack or stroke). If you have any infection, (including bladder, prostate, kidney, gums, skin ulcers, or ingrown toenails) it should be treated and cleared up before undergoing joint surgery.

If you have multiple medical problems or a history of difficulty following anesthesia from a previous operation, your 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 Pre-Surgery testing.

Inpatient/Outpatient Surgery Status

Many insurances are requiring total shoulder surgeries to be performed in an outpatient status. If you meet the discharge criteria, patients will go home the day of surgery. If you have not met the discharge criteria, you will spend the night in the hospital. Having a surgery performed in an outpatient status, can effect patient's financial responsibilities. If you have questions about your financial responsibilities with your surgery, contact Financial Counselors at **513-585-0700**.

Medications

- If you are taking blood thinners (including Aspirin, Coumadin/warfarin, anti-platelet aggregates or other prescription and non-prescription medications-such as Vitamin E and fish oil) obtain instructions from your cardiologist or primary care physician regarding discontinuing the use of these medications temporarily, prior to surgery.
- You may continue to take prescription pain medications, with the exception of non-steroidal anti-inflammatory drugs (NSAIDs).
- Seven days prior to surgery you should stop taking NSAIDs (excluding Celebrex)
- If you have a history of pulmonary emboli, deep vein thrombosis, or allergy to aspirin, discuss with your surgeon which blood thinner will be given at

discharge. We recommend you contact your insurance company or ask your pharmacist about the coverage of these medications as some of these medications may be expensive. If you have any concerns after the conversation with the insurance company or pharmacist, contact your surgeon's office.

Discharge Planning

- If you need assistance preparing for post-surgery care, please see "Pre-Surgery Planning for Your Discharge" on page 13.
- A Case Manager may contact you prior to your surgery to discuss discharge needs.

ONE WEEK PRIOR TO SURGERY

- Anticipate being discharged as soon as you meet your goals, which should be the day of surgery. Please make arrangements for transportation accordingly.
- Report important observations or changes in your health. If you have any changes in your physical condition such as a fever, sore throat, abscess, persistent cough, ulcer, nausea, vomiting, diarrhea, and you question your readiness for surgery, consult your primary care physician to assess and treat.

If there is an important change to the skin or a rash where the surgery is to be performed, notify the surgeon's office as soon as possible. An important change would be an open draining wound or a localized area with swelling, redness, heat, tenderness to touch, pain or pressure.

TWO DAYS PRIOR TO SURGERY

- Take necessary measures to ensure a good bowel movement the day before your surgery. If you have no history of bowel problems, you can typically assure this with your diet. You may take a laxative or suppository of your choice two days before your scheduled surgery if you tend to need this type of treatment regularly, or on a periodic basis. Over-the-counter products are sufficient. The majority of people do not need to give themselves an enema. After your surgery, you will be given liquids and food as your stomach allows. Most people are back on a regular diet the day of surgery.
- Do not drink any alcohol for 48 hours prior to surgery, as this delays emptying of the stomach.

DAY BEFORE SURGERY

- Make sure you drink 8 glasses(2 quarts) or more of fluids, such as Gatorade or a similar product, preferably not just plain water unless instructed otherwise. Do not drink red or orange colored liquids or jello.
- You may eat a snack before you go to bed if it is before midnight.
- DO clean the surgical area and your body from the shoulders down with Hibiclens soap. You do not need to use Hibiclens on your face, hair or genital area.
- DO NOT drink alcohol, including beer or wine.
- DO NOT shave the surgical area at home.

DAY OF SURGERY

- DO NOT smoke.
- DO NOT chew gum.
- DO NOT eat any type of hard candy.
- You may have clear liquids up to four hours prior to surgery time. Do not drink red or orange colored liquids or jello.
- Medications may be taken as instructed by the hospital assessment nurse on the morning of surgery. If you are on medication for high blood pressure, your heart, or asthma and have not received instructions, please call The Christ Hospital assessment nurses at **513-585-1720**.
- The morning of surgery, shower your body again, including the surgical site before going to the hospital with the Hibiclens.
- Wear comfortable loose fitting clothes.
- Leave valuables, including jewelry, at home.
- If you have an insulin pump for diabetes, bring in your supplies on the day of surgery.
- Bring only necessary personal items with you to the hospital.
- Go to the Same Day Surgery Check-in desk located on B-level of the Joint and Spine Center. At Liberty campus, check-in for surgery is on the second floor. Plan to arrive at the time your surgeon's office indicated. Generally, this is two to two and a half hours prior to the scheduled start of your surgery.



Anatomy of the Shoulder Replacement

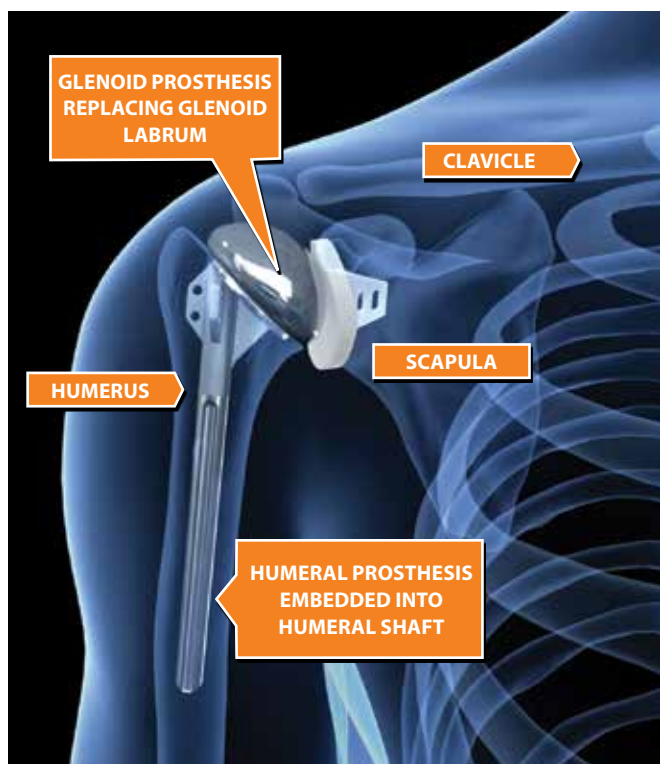
All forms of shoulder arthritis cause a wearing down of the cartilage “cushion” leading to pain and a limited range of motion. Osteoarthritis is the most common cause of degenerative arthritis to affect the shoulder. Less common causes are rheumatoid arthritis, avascular necrosis (AVN), post-traumatic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

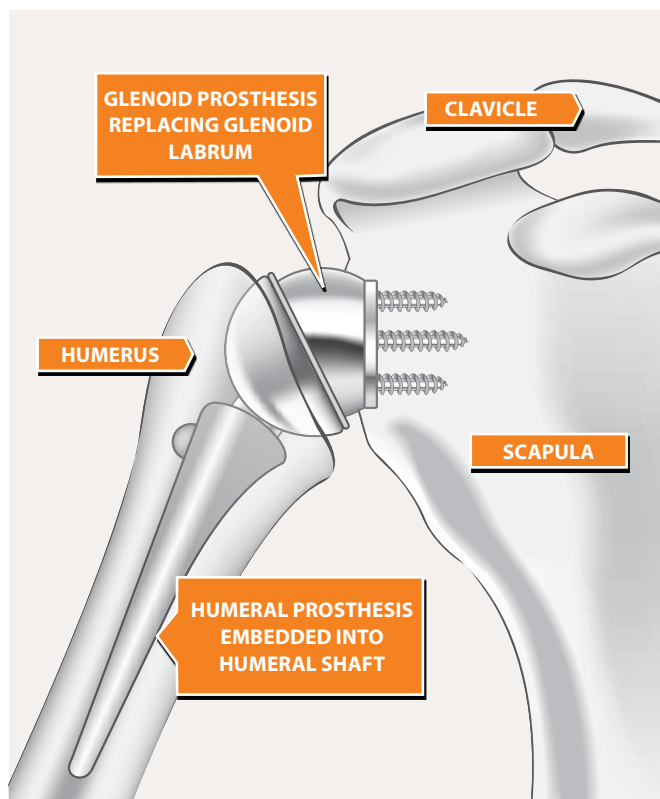
There are several different types of shoulder replacements. A hemiarthroplasty involves replacement of just the “ball” of the shoulder. This may be done if the glenoid (socket) has good cartilage, the bone of the glenoid is severely deficient or when the rotator cuff is irreparably torn. A total shoulder 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.



Total Shoulder Replacement



Reverse Total Shoulder Replacement

Diabetes and Surgery

BEFORE SURGERY

Managing your diabetes is important. Controlled blood sugars can improve healing and prevent some surgical complications. In order to determine if your diabetes is well controlled, your physician may order a blood test called hemoglobin A1C (A1C). The A1C is a blood test that measures your average blood sugar over the last two to three months. The American Diabetes Association recommends an A1C of 7% or less. Discuss your A1C results with your physician.

Tips to help you control your diabetes include:

- Take your medications as prescribed
- Eat three healthy balanced meals
- Be aware of portion sizes
- Eat whole fruit instead of drinking fruit juice (Balance fruit with protein)
- Avoid high sugar drinks such as: Gatorade, Kool-Aid, regular soda, lemonade, sweet tea
- Limit high sugar foods such as: cakes, cookies, candy, ice cream
- Be physically active (Recommend: 30 minutes 5 days a week)
- Monitor your blood sugar and discuss results with your healthcare provider

Prior to surgery a nurse will call to discuss your diabetes and medications. It is important for the medical team to know what type of diabetes (type 1 or type 2) you have. It is also very important you provide detailed information about your diabetes medications and/or insulin or insulin pump/ insulin delivery device. This information will assist your physician during and after surgery to better manage your diabetes.

Make a list of all your diabetes medications and /or insulin. Include the following details:

1. Name of oral diabetes medications and/or insulin
2. Dosage of oral diabetes medication and/or insulin
3. Schedule for taking your oral diabetes medications and/or insulin
4. Manufacturer of Insulin Pump/Insulin Delivery Device and type of insulin

Medication instructions on the day of surgery:

- Ask your physician if you should take your diabetes medications prior to and on the day of surgery.
- If you take insulin, you should ask your physician if the dose will be different prior to and on the day of surgery.
- If you have an insulin pump, you should ask your physician if the insulin pump settings need to be adjusted. If you have insulin delivery device ask your physician if you can use your device during surgery.

Note: Occasionally, before/after joint or spine surgery you physician may prescribe a steroid type medication. Steroids can affect your blood sugar by making them high. Your physician will be monitoring and treating your blood sugar as needed.

DAY OF SURGERY

Your blood sugar will be monitored prior to and during surgery. If your blood sugar is higher than normal your physician may order insulin. Insulin may be administered by injection or through your IV.

AFTER SURGERY

The stress of surgery and being in the hospital may have an affect your blood sugar.

Our goal is to check and treat your blood sugar often in the day to help keep it as normal as possible. Normal blood sugar levels can help you recover from your illness quicker, improve surgical healing and experience a shorter hospital stay.

- In order to provide good blood sugar control, your home treatment plan may not be used during your hospital stay.
- If you are currently taking pills for your diabetes, they will be stopped and you will receive insulin while you are in the hospital. National research supports stopping your oral medications and using insulin. Research has shown that using insulin in the hospital setting can help provide safe and rapid control of high blood sugar levels.
- Your blood sugar will be checked frequently
- You will be asked to let your nurse know when you are going to eat a meal so your blood sugar can be checked and insulin can be given to you at the right time.
- You may receive more than one kind of insulin.
 - Rapid acting insulin (Humalog) is given before meals. It works fast to control your blood sugar after eating.
 - Long acting insulin (Lantus) is given daily. It works slowly to control your blood sugar throughout the day and night when you are not eating.

- If you feel shaky or sweaty, at any time, call your nurse or patient care assistant right away. These signs may mean your blood sugar level has dropped below normal. In order to find out if your blood sugar is low, the nursing staff will check your blood sugar and will provide treatment if needed.

If you are given insulin in the hospital, you may or may not have to use it at home. Ask your doctor if your home diabetes treatment plan will change. If you go home on insulin, you will be taught about your insulin plan and allowed to practice giving an insulin injection before you are discharged.

If you have an insulin pump or an insulin delivery device your physician may allow you to use your pump or insulin delivery device during your hospitalization. To safely use your pump or insulin delivery device during hospitalization you should be prepared to provide insulin pump manufacturer, type of insulin and insulin pump settings. Insulin pump/Insulin delivery device supplies are not available in the hospital. In order to use your insulin pump you must bring your own pump or insulin delivery device supplies to the hospital.

Additional diabetes information is available upon request. Diabetes educational videos are available on your room TV. You may request the inpatient diabetes educator to meet with you and your family. Please speak to your nurse or physician about making a referral to the inpatient diabetes educator.

Pre-Surgery Planning For Your Discharge

Discharge planning should begin prior to admission since most patients are discharged the day of surgery. Your surgeon, along with your health care team, will assist you in determining your physical therapy needs at discharge.

Once you are discharged from the hospital, your surgeon will determine if additional physical therapy is needed. If your surgeon determines additional physical therapy is needed, there are three basic options for physical therapy:

- Outpatient physical therapy
- In-home physical therapy
- Inpatient physical and occupational therapy in a skilled nursing or rehab facility

OUTPATIENT PHYSICAL THERAPY

Early outpatient physical therapy is generally preferred. This can be done at a Christ Hospital Physical and Occupational Therapy Center in your area. If one of our locations is not convenient or you have a relationship with a therapist, an alternate location is acceptable. Physical therapy should begin as soon as possible after discharge and continue two to three times per week as indicated by your physician.

You may book your first outpatient therapy appointment prior to surgery to assist you with obtaining a ride.

HOME BASED PHYSICAL THERAPY

If transportation is not practical for outpatient PT or your physical therapist recommends home PT, home therapy can be arranged for you. Your Case manager will assist with these arrangements if you are home bound. Home therapy is usually 2–3 times per week for 1–2 weeks or until mobility allows you to travel to outpatient PT.

SKILLED NURSING OR REHAB FACILITY

While the majority of total joint replacement patients return directly home after surgery, some patients may need a short stay in a different setting in order to continue with daily therapy. There are two levels of inpatient care available after discharge if needed. The two levels of care are:

1. Community based Skilled Nursing Facilities

- Most orthopedic patients who need additional inpatient care do well with a short stay at a skilled nursing facility. At the facility, occupational and physical therapy is available as well as nursing care.

2. Inpatient Acute Rehab Care - This type of care is for patients who have more complex rehabilitation needs, often with additional complicating medical conditions. The Christ Hospital rehab unit meets this description.

Insurance coverage may limit your skilled nursing facility and rehab options or specify a particular agency or facility. You may wish to contact your health insurance carrier prior to admission to clarify the benefits of your policy.

The Orthopaedic Social Worker will be happy to speak with you for discussion about skilled nursing and rehab facility needs prior to surgery. Please contact

513-585-2734.

If spending the night in the hospital and returning home, a Case Manager will meet with you during your stay and assist with your home discharge needs. See page 20 for more information.

PREPARING YOUR HOME

For your safety, we recommend the following, if they apply to your situation:

- Remove all throw rugs out of your path.
- Remove all footstools, plant stands and other low floor items.
- When you get home, keep pets in another area of your house until you are settled.
- Remove or tape down any cords or wires in your walking path.
- Have a non-skid mat for inside and outside of the shower.
- A handrail is recommended if you have steps leading into or in your house.
- Have a chair with arms for getting up and down easily. Recliners, soft chairs, rocking chairs, and low sofas can be difficult to get out of depending on your height.

Additional considerations that make your return to home more convenient:

- Move things you might need (magazines, medications, phone, cooking utensils) so you can reach them easily.
- Have the supplies you need at home and ready for use.
- Have an oral thermometer available.
- Have telephone numbers by each phone in case of an emergency. Have paper and pencil by the telephone to take messages and your calendar for noting the timing and dosage of your medication when you come home.
- Have a telephone near you in your living area and by your bed.
- If your bed is on a separate floor from the bathroom, you may want to consider having a bed temporarily located on the same floor as the bathroom or using a bedside commode. Please note, stairs are allowed to be performed at time of discharge.
- Place night lights in the hallways or have a flashlight handy for nighttime trips to the bathroom.
- Have some nutritious meals or frozen dinners available ahead of time.
- Be prepared to rest completely for at least one hour, two times each day. Part of this time is with your feet higher than your heart. You should not allow phone calls or visitors during rest periods.
- An apron with pockets is useful to carry small items around the house.
- Have Tylenol, stool softeners, and laxative available at home.



What to Bring to the Hospital

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

- Medical insurance card(s) and prescription card
- A list of your medication(s) including the name of each medication, dosage and frequency.
- Do not bring your own medications, unless instructed to do so by the Pre-Surgery Assessment Nurse.
- Copy of Advanced Directives (if you have them)
- Insulin pump and supplies
- CPAP and supplies
- Sling if you have received it before surgery

If your surgery requires a planned hospital stay, we recommend you ask your family or friends to bring your personal belongings to your room later in the day.



What to Expect On the Day of Surgery

On the day of your surgery, please go to the Joint & Spine Center and proceed to the Same Day Surgery Check-in desk located on Level B at the time your surgeon's office requested that you arrive. If your procedure is scheduled at Liberty Township campus, proceed to the second floor. If you have family or friends accompanying you, they will be provided information regarding how to read the patient tracking system.

Upon check-in, you will be escorted to a private room on the Same Day Surgery unit to be prepared for surgery. If you choose, your family or friends may accompany you to your room. While here, you will see several staff members, including nurses, your surgeon, the anesthesiologist and other patient care assistants. To ensure your identity and safety, each staff member will ask you a series of questions:

- What is your name?
- What is your date of birth?
- Do you have any drug allergies?
- What are we doing for you today?

During preparation for your surgery, an IV will be started, a nurse will scrub the surgical site with Chlorhexadine wipes, you will be given a mild sedative if ordered by the anesthesiologist as well as medication to prevent nausea and vomiting if indicated. Your surgeon will also mark the area where you are to have surgery. When you go into the operating room, the surgical team there will again ask you the same series of questions. Just before the incision is made, you will be given an antibiotic through your IV, which given directly before the start of surgery has been proven to prevent surgical site infections.

Once you are taken to the operating room, your family and friends will be directed to the Family Surgical Lounge. When your surgery has been completed, your family will be contacted and your surgeon will meet with them to review the results of your procedure.



ANESTHESIA

You will meet your Anesthesiologist on the day of your surgery. Prior to this time your history and physical exam and any important information about you have been reviewed. Questions and concerns about your anesthesia or previous anesthesia experiences can be discussed with the Anesthesiologist during preparation for your surgery, on the Same Day Surgery unit. The Anesthesiologist will likely order a mild sedative prior to surgery and other medications to help prevent nausea after surgery.

PAIN MANAGEMENT

Your surgeon may request an Anesthesiologist to administer a pain block before surgery or your surgeon may choose to give you a peri-articular injection into the joint during surgery. Expect some discomfort following surgery, but with the current pain management modalities, we can greatly reduce the amount of pain you feel following total joint replacements. Relieving your pain allows you to increase your activity and participate in physical therapy. This is an important step towards a faster recovery.

Your surgeon will select one or more of the following pain management options for you:

Interscalene Nerve Block

Your surgeon may select for you to have an Interscalene Block.

With the interscalene nerve block, a numb or immobile shoulder and upper arm is expected for a minimum of 18 hours after surgery. Sometimes the nerve block can last for days. The variation in the duration of the numbness is dependent on the type of local anesthetic used, additives and individual variation.

Once the numbness starts to wear off, the discomfort from surgery will intensify progressively over the next 1-2 hours. We recommend you follow your surgeons recommendations for administering pain medication.

Rare side effects from the block include a droopy eyelid on the affected side and voice hoarseness. These side effects can last as long as the block is effective. Mild sensation of shortness of breath may be noted particularly in patients with respiratory disease.

While the arm is numb, keep the operative arm and elbow well protected and padded. Protecting the arm will prevent unrecognized pressure from being placed on the arm which can result in nerve damage.

You may call **513-585-2482**, 8 a.m. to 4 p.m., Monday through Friday, with any medical questions you have about the block.

Peri-articular injection

If your surgeon uses the peri-articular injection, the numbing medication will be injected around your new joint with other medications to help control your pain.

Combination

Your surgeon may use a combination of numbing medication from a peripheral nerve block and a peri-articular injection to help control your joint pain.



POST-ANESTHESIA CARE UNIT (PACU)

Following surgery, you will be taken to the Post-Anesthesia Care Unit (PACU) where you will remain for approximately two hours. Many people feel cold when they wake up from surgery, so warm blankets are available if you need them. Monitors will be applied to measure your blood pressure, heart rate and rhythm and breathing. An X-ray may be taken to check your surgery. If you experience pain tell the nurse so that they are able to help manage that pain to ensure it is tolerable for you. While you are in PACU, your family will be updated on your progress.

Once your vital signs are stable and your room is ready, you will be transferred to a room to continue to recover until you are ready for discharge to home.

What to Expect Following Your Surgery

PAIN MANAGEMENT

Post-Surgical Pain Management

Because patients may feel very little pain after surgery, some may feel comfortable moving around shortly after surgery. It is very important that you NEVER get up by yourself, ALWAYS call for assistance. While you may not feel significant pain, your joint has undergone considerable trauma and medications may also make you feel lightheaded and dizzy. If you get up without assistance, you will fall. YOU DO NOT WANT TO FALL.

The key to getting the best pain relief is talking to your surgeon and nurses about your pain so they can help you manage your pain while you are in the hospital. The goal is to stay ahead of the pain - don't let the pain get ahead of you!

Cold therapy can also help alleviate pain.

After discharge, it is also a good idea to take pain medication prior to going to outpatient therapy, if recommended by your surgeon. As your surgery heals, your pain will improve and you will take less pain medication over the next couple of weeks until you won't need pain medication any longer.

EATING AGAIN

You will be returned to your normal diet gradually after surgery. You will be started on a liquid diet then advanced to a regular diet later in the day. A good diet is important to promote the healing process. Drink plenty of fluids to keep your kidneys flushed and your bowels regular.

Classic Cuisine

If staying overnight after surgery, meals may be ordered daily between 6:30 a.m. to 9 p.m. and will be delivered within 45 minutes of order placement. If you have any questions about this service during your stay, please dial **5-2100** from your room phone to speak to a Classic Cuisine Ambassador.

DRESSING – INCISION CARE

Your incision will be covered with a waterproof dressing while at the hospital. You may shower with this dressing. Specific instructions on how to care for your incision will be given at discharge by the nurse.

PREVENTING RESPIRATORY COMPLICATIONS

Deep Breathing and Coughing

Your lungs consist of many air sacs, which get larger when you breathe. When awake we periodically take a deep breath and blow off extra fluid from these tiny air sacs. When you are sleeping more because of the anesthesia and pain medications, you do not take these deep breaths. Fluid and mucus tend to build up in the air sacs. If allowed to collect, pneumonia can develop and slow down your recovery. After surgery you must make a conscious effort to "deep breathe and cough" to help prevent postoperative pneumonia.

PREVENTING BLOOD CLOTS

After total joint replacement surgery, clots, called deep vein thromboses (DVT) may form in the leg veins. In rare cases, these clots travel to the lungs where they may cause additional symptoms. To prevent and reduce the incidence of clot formation, mechanical devices (foot or calf pumps) are used while you are in the hospital to squeeze the leg muscles, thus maintaining blood flow in the veins. Also, a medication to minimize clot formation, such as Coumadin, Lovenox or Aspirin, may be prescribed and you will have thick white support stockings on after surgery. These stockings are used to help compress the veins and decrease the chance of blood clots. You will continue to wear these upon discharge.

MEDICATIONS

If you develop a fever, you will be given Regular Strength Tylenol (acetaminophen). Please note, the majority of joint replacement patients run a temperature up to 99.5 or even 100 degrees in the first few days after orthopedic surgery. If your fever rises above 101 degrees, it starts to be a source of concern.

Some people experience nausea from extensive bone surgery, as well as from the anesthetic or pain medication. If this occurs, there are medications to help reverse this effect.

COLD THERAPY EQUIPMENT

An ice pack will be applied after surgery to your surgical site.

FALLING AFTER SURGERY

Certainly, no one plans on falling, but orthopedic surgery patients are the most common type of patient to suffer a fall. Falling after joint replacement surgery can be very dangerous and will likely cause a major setback in your recovery. Falls most often occur when a patient tries to get out of bed or a chair without help. **It is very important that you do not get out of bed, out of the chair, or even off the toilet without assistance!** Please use the call light and wait for help prior to getting up. Take your time when sitting up and sit for a moment before standing. If you wear glasses, make sure you have them on and are wearing non-skid slippers or shoes when walking.

ACTIVITY

The hospital staff will get you up on the day of surgery. The physical or occupational therapist will instruct you on gentle range of motion exercises based on your physician's exercise protocol. 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 external rotation and twisting the arm at the side for the first 4-5 weeks. The sling is used to protect the healing muscles and tendons around the shoulder. Wear your sling as instructed by your surgeon.

DISCHARGE GOALS

In order to be discharged, certain goals must be met to ensure it is safe for you to return home. These goals include:

- Able to climb stairs
- Tolerating diet
- Urinating
- Ambulate safely
- Tolerating your pain medication by mouth
- Vital signs are stable
- Stable lab results, if ordered

DISCHARGE TIME

Anticipated discharge is the day of surgery. In order to be discharged to home, you must reach the discharge goals. If these goals have not been reached, you may have to spend the night in the hospital. Please have a ride arranged for discharge.



Discharge Instructions

A patient will need someone home with them for the first 48 hours 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 well understood. At discharge it is important for you to know:

- Physician office contact information.
- When and where your follow up appointments are.
- What medications to take, those from before your surgery, those since your surgery, and, if on Coumadin, when your next blood test will be.

The discharging nurse will review your discharge instructions and medication list at discharge. You will also receive a written copy of the instructions and medication list to take home. Instructions will include:

- How to care for your incision. If it has drainage, know how to take care of it and the supplies needed.
- What exercises to do.
- All the equipment you will need in relation to your arm, can be ordered while at the hospital if not received pre-operatively.
- What to do if your arm swells. (Page 24)
- Things to report to us: fever, change in pain, new drainage from your wound or drain site or change in the character of the drainage you are having.



Activities of Daily Living with a Sling or Immobilizer

WEARING A SHOULDER IMMOBILIZER OR SLING

A shoulder sling is used to support your arm after injury or surgery. It may also be used to limit movement or to raise the arm to reduce pain and swelling.

WHEN TO WEAR THE SLING

- The length of time you will be required to wear your sling will be based on the physician recommendations. Typically two weeks.
- All the time until your follow up appointment and your surgeon directs you otherwise.
- As you need for comfort
- Remove your sling each day to wash your arm or to do your exercises.

PUTTING ON THE SLING

Your sling will have

- A strap that fits over your shoulder and back
- A pouch or pocket to hold your elbow and lower arm

How to put on the sling:

1. Start by sliding the closed end of the sling over your hand on the injured side.
2. Fit the sling on your arm so your elbow is back in the pocket as far as it can go.
3. The long strap of the sling should go from the back of your injured arm, across your back to your other shoulder and down your chest. If you are not able to work the strap around, you may attach the strap to the fastener and then lift the strap over your head to the opposite shoulder.
4. Attach the long strap to the fastener on the sling near your waist.
5. Adjust the length of the strap so your hand is always at or above the level of your elbow.
6. Move the pad on the shoulder strap near your neck so it feels comfortable.

TAKING OFF THE SLING

1. Loosen the fastener and take the strap out.
2. Gently remove the sling from the injured arm.

CARE WHILE WEARING THE SLING

Unless you have been instructed otherwise, follow these general care guidelines:

- Adjust the strap on the sling so your hand is slightly higher than your elbow. This helps reduce swelling.
- Be sure your elbow is back in the pocket of the sling as far as possible.
- Remove the sling each day to wash your arm and shoulder. Use a damp washcloth to wash your armpit and skin. Dry well with a towel. Limit movement of your injured arm.
- Ask about exercises for your fingers, wrist and elbow.
- Talk to your doctor, nurse or therapist if you have any questions or concerns.

BATHING

It is vital that you regularly loosen and/or release the sling/immobilizer to exercise and move your elbow, wrist and hand to prevent stiffness or these joints at least four times every day.

1. Getting washed - For the first 3 weeks you may still be sore from the surgery, and you will probably need assistance washing your non-operative arm. You should not use your arm that just had surgery for this. Do not get your sling wet. The waist up can be washed with warm soapy water. Armpits are difficult to clean and complete regular washing is really important. Avoid using antiperspirant spray or until the incision is healed. It would be a good idea to use a shower with an extension for the water. Please remember to keep the surgical wounds dry and protected while washing. Waterproof dressings would be very beneficial to get from the hospital or your physician.

2. Getting dressed - You will find it easier to wear clothes that open in the front. Dress your operated arm first. Sit on the edge of a chair or stand with your arm 'hanging' by your side. Slide your operated arm into the garment first using your un-operated arm. Let your operated arm hang loose, do not assist with your operated arm. Once this arm is fully in the sleeve bring the garment around your back and put the other arm in. Any fasteners must be fastened only with your un-operated arm. Once you have dressed your upper body, place your arm back in the sling.

FEEDING

For the first few weeks it would be a good idea to eat only with the non-operated hand.

TRANSFERRING

Use only your non-operated extremity to help you get out of a chair, bed, toilet, or bath. After 6 weeks, you may return to using both extremities.

SLEEPING

You may find it easier to sleep on your back for comfort, with a pillow under your arm for support. You might find it comfortable to sleep sitting up in a chair.

KITCHEN ACTIVITIES

You should use your non-operated arm for all your kitchen activities.

HOUSEWORK

Light housework may resume after 6 weeks. Strenuous housework should be avoided until 3 months after your operation.

Incision Care After Total Joint Replacement Surgery

The incision will be closed with skin glue or staples. Skin glue is waterproof. Once told the dressing can be removed, a dressing is no longer needed and you may continue to shower. If the outer skin edges are held close together with staples, a waterproof dressing is necessary to shower. The staples are removed once the incision has healed, usually around ten to fourteen days after surgery. Do not soak in a tub or pool until all of the scab is off your incision, usually around four weeks after surgery.

Everybody heals at a different pace. This pace can be affected by some medications and some medical conditions. It is not unusual for there to be some drainage from your incision for 7-10 days. As long as the dressing is not saturated and it remains sealed, leave the dressing on. If the dressing becomes saturated, call the surgeon's office. It is also not uncommon to have bruising around your incision. No creams or ointments should be applied on top of the incision until all of the scab has come off naturally.

Pain Relief At Home

You will be given prescriptions for pain medication when you leave the hospital. There are prescriptions that can be called in to a pharmacy and those that require a written prescription. When you get down to just over one day's worth of medication, you may call the office for a refill. Please allow 24 hours for refills. 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. When you call the office for a refill, please give your name, the date and type of surgery you had, the name and dose of your medication, and the telephone number of your pharmacy.

As you get farther out from your surgery, your need for pain medicine will decrease. Narcotic pain medicine is very constipating and your stomach will be much more comfortable when you take less of it. 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 it contains. For example, 5/325 means you have five milligrams (mgs.) of the narcotic pain medicine and 325 mgs. of acetaminophen. You may find that taking one prescription pain pill with one acetaminophen tablet helps more than one pain pill by itself.

It is important to take the medication as prescribed. Taking more tablets than directed at one time or at more frequent intervals causes some concern. If you become overly medicated, you could fall and injure your surgical site. In addition, taking too much acetaminophen can damage your liver.

The day after you finish your blood thinning medications, you may go back on your regular arthritis medications (also called anti-inflammatory medications). This helps reduce the amount of narcotic pain medication that you need. It also helps decrease the amount of soft tissue swelling and warmth, while you are working on stretching for your motion. If you were taking Celebrex before surgery or were given it at the hospital, you may continue it even if a blood thinner is given.

For total shoulder replacement patients, it is important to take your pain medication for your physical therapy. Patients usually cut back to taking pain medication for therapy and for sleeping at night, as prescribed by your physician.

Ice is very helpful in pain control. Applying an ice pack for 20-30 minutes at a time can give significant pain relief. You need to put a towel between your skin and the ice pack. You may use the ice pack provided for you at the hospital or a large bag of peas or corn conforms nicely and can be reused several times. After 20-30 minutes your circulation goes back to normal and the therapeutic affect is lost. Putting ice on and off frequently is better than keeping it on continuously around the clock.



Potential Complications of Total Joint Replacement Surgery

Total Joint replacement surgery has a very high success rate. Complications are relatively uncommon considering the complexity of the procedure.

However, with any surgery there are the risks of anesthesia, of bleeding too much and of infection occurring. With total joint replacements, the most common complication is blockage or blood clots in the legs or arms, the most serious complication is infection, and the most serious long-term complication is loosening of the prosthesis.

GENERAL COMPLICATIONS

Anesthetic Complications

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

Bleeding Complications

Bleeding complications are usually 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 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 is checked prior to surgery. Bleeding into the wound is drained and monitored.

Infection

Any time our skin is cut, bacteria can enter our bodies and is 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, including a special ventilation system used in the operating room, and antibiotics administered before and for 24 hours after the operation.

Some individuals are more prone to develop infections, such as people with an immune system impaired by certain medical conditions, people that need to take certain medications that delay wound healing, people who have 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 gallbladder infection.

Blood Clots

Blood clots in the veins (deep venous thrombosis) of the legs or arms are very uncommon complication of shoulder replacement surgery. Swelling and decreased activity lead to slowed circulation in the legs. The speed at which our blood clots varies from individual to individual. If clots develop and remain in the legs, 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. Ankle exercises, early mobility and attention to swelling are all aimed at avoiding and preventing blood clots from forming or progressing.

In some cases, excessive swelling of the foot, arm and lower leg can be due to deep vein thrombosis (DVT), also known as blood clots in the veins of the leg. If pain or tenderness in the calf muscle is associated with swelling, if the swelling seems excessive, if swelling does not respond to elevation or if your leg or arm is as swollen in the morning as the night before, your surgeon's office should be notified immediately.

Blood clots can occur despite all these precautions. They are usually not dangerous if appropriately treated, but may delay your recovery, your discharge from the hospital, or be a cause for readmission once you have gone home.

Loosening of the Prosthesis

Loosening of the prosthesis from the bone is the most serious 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 the 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 can cause the bond to loosen.

Fracture of Bones

Fracture of one of the bones rarely occurs during joint replacement. One of the bones can fracture later from any trauma, such as falling down stairs.

Pressure Sores

Pressure sores on the tailbone and heels may develop if you stay in one position too long. Normally we move frequently in our sleep and all during the day. This changes the amount of pressure over our bony parts. With the reluctance to move because of the medication or for recuperation in general, this ability to change position frequency on your own is diminished. Pressure sores can be avoided by changing your position every two hours. With orthopedic surgery, this also helps with your pain control. A position that feels really good when you first get there will soon be uncomfortable because your body wants to move. When you need help to change your position, call the nurses to help you until you have learned how to do it on your own.

Residual Pain and Stiffness

Residual pain and stiffness can occur. This is pain that lasts beyond your recovery. The completeness of the pain relief and the degree of mobility reached is partially determined by your shoulder problem before surgery. Rarely, patients have pain after surgery that cannot be explained.

In virtually all cases the surgery will make a significant improvement in your pain and function of your shoulder. While there is always a risk of complication, every effort is 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 joint, and it will feel "normal." This transition to normalcy can take up to nine to twelve months.

Limits to Range of Motion

The primary reason most people have total shoulder replacement surgery is pain relief. Regaining the ability to do things and increased motion are added benefits when they occur. A shoulder that is ultimately stiffer is an undesired result. Some individuals regain their motion with little difficulty, while others are stiff and sore and must work hard to reach the goal.

Instability

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

Conditions You May Encounter At Home

CHEST PAIN OR SHORTNESS OF BREATH

Chest pain or shortness of breath following joint replacement surgery may be signs of a pulmonary embolism. Do not ignore these symptoms. Seek medical attention right away. Call 911.

DRAINAGE FROM THE INCISION

Drainage from the incision, or increasing redness around the incision, could signify impending infection. Your surgeon's office should be notified, and in most instances you will need to come in and have your incision looked at. Your dressing change routine and medications may need to be adjusted. Please cover with dry sterile gauze twice a day or as needed. If you have drainage, do not shower.

Occasionally, a pocket of fluid (a hematoma if bloody fluid; a seroma if clear fluid) develops under the closed incision. This collection of fluid can result in a hardening of the skin over this area. As the surgical wound heals, the body re-absorbs this fluid in most cases and the area softens. Occasionally, this fluid finds an opening in the incision and drains out. Hematomas drain dark maroon colored fluid and seromas drain a clear yellowish fluid. If this drainage occurs, you should keep the area clean and call your surgeon's office.

HIGH FEVER

While it is common to run a slight fever following joint replacement surgery, a high fever could be a sign of impending infection. If you feel you have a

fever, take your temperature and make note of it. At least three hours later, take your temperature again. If both readings indicate a fever of 101° or more, notify your surgeon's office. Your pain medication may have acetaminophen in it, which will help to keep your fever down. If you need to call the surgeon's office, please be prepared to provide information on recent medication you have taken and dosage.

INCREASED JOINT PAIN

Pain in your joint should be decreasing from day to day. If it seems to be steadily increasing, call your surgeon's office.

CONSTIPATION

Many patients experience constipation after surgery. Not having a bowel movement for 2-3 days following surgery can be normal. Constipation after surgery can be caused by pain medication, which contains narcotics. Also, decrease in liquid, food intake and activity contribute to constipation. While on pain medication, continue to take an over the counter stool softener. If you have had no bowel movement 2-3 days after surgery, you may need to take a laxative. If the stool softeners and laxative do not relieve your discomfort, contact your pharmacist, family doctor or surgeon for advice. In addition to these medications, you should increase your activity, water and fiber in your diet.

Routine Progression of Activity

You are not expected to stay in bed when you return home from the hospital. You should be up and about, but rest as much as needed. You should also do the exercises you have been taught and that you can do on your own.

It is not uncommon to have difficulty sleeping for the first one to two months after surgery. It is acceptable to rest during the day, but try to avoid taking long naps if you have trouble sleeping at night.

Driving is individualized. You should check with your surgeon for recommendations when you may return to driving.

SEXUAL RELATIONS

You are not alone with your concerns and questions about resuming sexual activity. In general, it is safe to return to sexual activity by six weeks after surgery. If you choose to abstain, remember that sexual activity can include more than intercourse. It is important to communicate with your partner to minimize the impact of your surgery on intimacy. If you have any concerns, please check with your surgeon's office, therapist or nurse.

RETURNING TO WORK

You will probably not return to work for eight to 12 weeks after your surgery. Quite a few patients do return earlier, depending on the nature of their work and how flexible their workplace is for returning on a part-time basis initially. We generally tell employers eight to 12 weeks, but you may return sooner if you are physically ready. Discuss an early return to work with your surgeon. Please contact your surgeon's office if you need paperwork completed for your employer.

FOLLOW UP CARE

In the first few months after your surgery, you will have routine visits to monitor your healing and progress. Any questions, concerns, or worries can be addressed at these visits. Prior to your visit, it may be helpful to write down things you would like to discuss during the visits. Remember to note if you need a prescription refill.

It is important to talk to your physician about your follow-up plan. Below is an example of a typical schedule following shoulder replacement:

10 to 14 days after surgery: Wound staples are removed at this visit if you have them. You may want to take pain medication before you leave home and bring

a dose with you. If you have a home health nurse who will be taking out your staples, you will not need to schedule this visit.

Four to six weeks after surgery: X-rays may be taken to check your healing.

Three to four months after surgery: Typically, you will return to the office monthly. At 3 months, strengthening exercises will be started.

One year after surgery: You will have an X-ray taken at this visit. After the one year appointment, you should follow-up every five years for an X-ray to monitor the positioning of your new joint. Problems around the surface between the components and the bone show up on X-ray before you have symptoms. Waiting until symptoms occur may lead to a more difficult treatment.

INFORMING OTHER HEALTH CARE PROVIDERS

It is important that you inform all of your health care providers that you have had joint replacement surgery. For all total joint patients, it is advised to protect the joint whenever a procedure that causes bleeding is performed. Please check with your surgeon regarding the length of time. People who have conditions that challenge their immune system are considered at risk for infections and are advised to take the antibiotic for the rest of their lives. These conditions include rheumatoid arthritis, systemic lupus, insulin dependent diabetics, cancer patients on chemotherapy or radiation therapy, hemophiliacs, and anyone who has had a previous joint infection. Should you need another procedure, emergent or elective, or routine dental cleaning and any other dental procedure, you should have antibiotics. Your dentist may order them for you or you may call our office.

Antibiotics should be taken one hour prior to any dental work, including routine teeth cleaning. This does not include your daily teeth brushing. Urologic (bladder) procedures for patients identified as at risk for infection do need antibiotic coverage. Please ask the physician performing the procedure for the antibiotic.

You will be given an identification card stating your surgery and date. The security systems at the airports and government buildings will likely pick up the metal and set off the alarm. Although the cards are no longer accepted at airports, it can be used as verification whenever needed.



Contact Us

For more information or questions about your joint replacement surgery, please do not hesitate to contact our Orthopaedic Nurse Navigator at **513-557-4882** or by Email at JointCare@thechristhospital.com.

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