

PATIENT GUIDE
TO
ANTERIOR CRUCIATE LIGAMENT
RECONSTRUCTION

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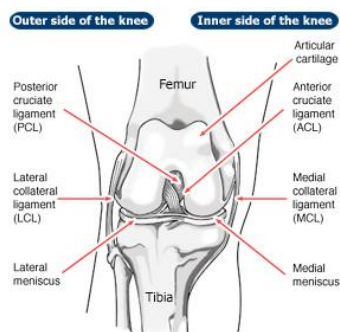
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ANTERIOR CRUCIATE LIGAMENT TEARS

The anterior cruciate ligament (ACL) is one of the most commonly injured ligaments of the knee. The primary function of the ACL is to prevent the tibia from sliding forward on the femur. The incidence of ACL tears is higher in individuals who participate in basketball, football, skiing and soccer. It is estimated that only 30% of ACL tears are the result of a direct contact with another player or object. The majority of tears are due to non-contact mechanisms that result from cutting, pivoting or an awkward landing. Female athletes have a higher incidence of ACL tears, which may be due to differences in muscular strength, neuromuscular control, physical conditioning, lower extremity alignment, increased ligamentous laxity and possibly the effects of hormones.



ACL Tear

The diagnosis of an ACL injury is based on a history and physical examination. X-rays and an MRI are helpful in determining the severity of the injury and evaluating for other associated knee injuries. This is important since approximately 50% of acute ACL tears are associated with injuries to the meniscus, articular cartilage and other knee ligaments. In chronic cases of ACL instability, there is a 70%-90% prevalence of tears to the meniscus and/or articular cartilage.

Non-surgical and surgical treatment options are available for treatment of ACL tears. Non-surgical treatment may be considered based on a patient's age (very young or elderly), activity level (low demand, sedentary lifestyle) and in some cases of a partial tear. The ACL doesn't heal with non-surgical treatment, however, symptoms of pain and instability can improve with a physical therapy program focused on muscle strengthening supplemented with a brace. Without surgery, activities involving cutting or pivoting movements should be eliminated as these put the knee at significant risk for further injury.

Surgical treatment is typically performed in patients who want to return to a full level of activity including sports and heavy manual labor. Surgery is performed arthroscopically and involves reconstructing (replacing) the ACL. Past studies have shown that simply repairing (stitching) the ACL back together does not work. During the same procedure, any associated injuries to the meniscus

and/or articular cartilage will be treated. The meniscus can be “repaired” directly with sutures (stitches) or trimmed (partial meniscectomy) depending on the type of tear.

The long-term success rate of ACL reconstruction ranges from 85%-95%. Recurrent instability and graft failure are seen in about 5% - 8% of patients. The length of time the tear has been present prior to surgery (acute tears do better than chronic tears) and revision surgeries can affect the overall rate of a successful result. The goal of ACL reconstruction is to restore the function of the knee by creating a stable joint therefore allowing a return to full recreational, sports and work activities.

TYPES OF GRAFTS

There are several types of grafts that can be used to reconstruct the ACL. These include autografts (your body’s own tissue) and include the patellar tendon, quadriceps tendon or hamstring tendons. Another option is an allograft, which is donated tissue from a cadaver.

AUTOGRAFTS

The middle third of the patellar tendon of the patient, along with a bone plug from the shin and the knee cap is used in the **patellar tendon autograft**. Has been referred to by some surgeons as the "gold standard" for ACL reconstruction, it is often recommended for high-demand athletes and patients whose jobs do not require a significant amount of kneeling.

Risks/Benefits:

- Historically has been associated with lower rate of graft failure
- Pain with kneeling and behind the knee cap
- Slightly increased risk of postoperative stiffness
- Low risk of patella fracture
- Prolonged quadriceps weakness

The semitendinosus and gracilis hamstring tendons on the inner side of the knee are used in creating the **hamstring tendon autograft**.

Risks/Benefits:

- Fewer problems with anterior knee pain or kneecap pain after surgery
- Less postoperative stiffness problems
- Smaller incision
- Prolonged hamstring/knee flexion weakness
- Conflicting research data on increased susceptibility to stretching/laxity

Early studies suggested that the patellar tendon had a lower failure rate than hamstring autograft ACL reconstruction. As more research has been done and

technology has improved it appears that both patellar tendon and hamstring autograft reconstructions can both lead to excellent clinical results in the majority of patients.

ALLOGRAFTS

Allografts are grafts taken from cadavers and are becoming increasingly popular. These grafts are sometimes used for patients who have failed prior ACL reconstruction and in surgery to repair or reconstruct more than one knee ligament.

Advantages:

- Less surgical pain
- Decreased surgical time
- Smaller incisions
- Return to activities of daily living more quickly

Risks:

Since allografts are obtained from a donor cadaver there is a risk of infection, including viral transmission (HIV and Hepatitis C), despite careful screening and processing. There have been a few reports of deaths linked to bacterial infection from allograft tissue (due to improper procurement and sterilization techniques). This has led to improvements in allograft tissue testing and processing techniques. There have also been conflicting results in research studies as to whether allografts are more susceptible to graft elongation (stretching), which may lead to increased laxity and early failure particularly in patients younger than 40 years old.

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.
- ☐ 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).
- ☐ 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

Scheduling and Preparing for Surgery

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 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. 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.

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 prescribing 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, you should contact your prescribing physician on what to take the morning of surgery. Including those who use insulin or an oral agent for diabetes also need special instructions from prescribing physician.

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.
- * Blood donor card and tag or arm bands, if you have set up blood.
- * A list of your medication(s) including the name of each medication, its dosage, 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.
- * 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, 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 (a longer robe makes walking difficult) 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.
- * Crutches or walker: if you already have these, have someone bring them to the hospital after surgery. If not, they will be provided for you to take home when you leave the hospital.
- * Do not bring credit cards, jewelry, valuable items, or more than \$5 in cash.

POTENTIAL COMPLICATIONS

The incidence of infection after arthroscopic ACL reconstruction is less than 1%.

Rare risks include bleeding from acute injury to the popliteal artery (overall incidence is 0.01 percent) and weakness or paralysis of the leg or foot. It is not uncommon to have numbness of the outer part of the upper leg next to the incision, which may be temporary or permanent, but usually improves in 9-12 months after surgery.

A blood clot in the veins of the calf or thigh is a potentially life-threatening complication. A blood clot may break off in the bloodstream and travel to the lungs, causing pulmonary embolism or to the brain, causing stroke. This risk of deep vein thrombosis (DVT) is reported to be less than 1%.

Recurrent instability due to rupture or stretching of the reconstructed ligament has a reported incidence of 2.5% to 10%.

Knee stiffness or loss of motion has been reported at between 5 percent and 25 percent. This is the most common complication after ACL surgery but, in most cases, can be worked out with physical therapy. Occasionally, further surgery is necessary to improve the range of motion of the knee.

Rupture of the patellar tendon (patellar tendon autograft) or patella fracture (patellar tendon or quadriceps tendon autografts) may occur due to weakening at the site of graft harvest is rare.

In young children or adolescents with ACL tears, there is a possible risk of growth plate injury, leading to bone growth problems. The ACL surgery can be delayed until the child is closer to reaching skeletal maturity. Alternatively, the surgeon may be able to modify the technique of ACL reconstruction to decrease the risk of growth plate injury.

Postoperative anterior knee pain and pain with kneeling is especially common after patellar tendon autograft ACL reconstruction. This typically improves by 9-12 months after surgery although may continue to persist indefinitely.

Allografts (cadaver grafts) are used in some cases of ACL reconstruction. Allograft tissue is uniquely associated with a risk of viral transmission, including HIV and Hepatitis C, despite careful screening and processing. The chance of acquiring an infection from an HIV-infected donor is calculated to be less than 1 in a million. There have been rare reports of cases of bacterial infection resulting in death from allograft tissue due to improper procurement and sterilization techniques. This has led to improvements in allograft tissue testing and processing procedures.

Further surgery may be required if any of these complications are encountered. Fortunately, surgical complications associated with ACL reconstruction are uncommon. While there is always the risk of a complication, every effort is made to prevent them. Should you develop a complication, every effort will be made to ensure a good result. The transition period to normalcy for your knee usually occurs over a 6 to 12 month period.

WHAT TO EXPECT AT THE HOSPITAL

Surgery to reconstruct the ACL is done arthroscopically on an outpatient basis. After you register, you are taken to where you prepare for your surgery. The anesthesiologist will see you there and discuss anesthetic options and risks. He/She will discuss advantages of general and regional anesthesia. If you want more information on different types of anesthesia, please ask for it. You and the anesthesiologist make the final choice of anesthetic.

Although a general anesthetic is used, the anesthesiologist may also administer a nerve block around your thigh/knee usually lasting from 8 to 20 hours. This helps decrease pain after surgery. See more information on femoral and sciatic nerve blocks under section below.

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.

During surgery, a small camera, also known as an arthroscope, is inserted in the knee through a ¼ inch incision. The camera is attached to large video monitors enabling visualization of the inside of the entire knee. Several additional small (¼ inch to ½ inch) incisions are used to pass specialized instruments into the knee to allow sutures and metal or plastic screws to be placed. These devices allow the new ACL to be attached to the bone. The menisci and articular cartilage will be examined at the time of surgery. If there is a meniscus tear, it is either “trimmed” or repaired with sutures. Occasionally, an additional open incision will need to be made around the knee to treat associated tears of other ligaments or the menisci.

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. 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 anesthesia is given by an anesthesiologist from The Christ Hospital. 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 your anesthesiologist. They will continue to monitor and adjust pain modalities as needed while in the hospital after surgery. An anesthesiologist is available 24 hours/day if problems should arise.

Femoral/Sciatic Nerve Block Information

Your surgeon may request this nerve block for post-operative pain relief in surgical procedures involving the knee. The femoral nerve block controls the pain on the front of the knee. A sciatic nerve block controls pain behind the knee.

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

Normal course and expected side effects: A numb and weak leg is expected for approximately 12-20 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 to allow 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.

Risks: Failed block, bleeding, infection, reaction to local anesthetic including seizure and cardiac arrest, 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 knee and leg well protected and padded for the duration of numbness. This will prevent unrecognized pressure from being placed on the knee/leg 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 from anesthesia you will be in a special brace. If you received a nerve block prior to surgery your knee/leg will be numb and heavy. You will have a bulky bandage on the knee. When fully awake you will be able to return home. In some cases, a CPM (continuous passive motion) machine will be set-up at home to help with early range of motion after surgery.

A prescription for pain medicine will be given to you. You will want to start taking this before the nerve block wears off so you aren't playing "catch up" trying to control the pain. An ice bag or a "Cryo-Cuff" is applied to the knee to help reduce pain and swelling as well.

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 need to 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 arthroscopic knee 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.

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 ACL Reconstruction

There are sutures (stitches) or staples in the skin where the incision(s) were made. You will need to keep the incisions completely dry until the sutures/staples are removed.

Doctor's Visits

At your first office visit 10-14 days from surgery, your incisions and range of motion will be checked. An x-ray of the knee will be performed to examine the ACL reconstruction. At this visit your sutures/staples will be removed. You will return to the office on a monthly basis for the first 3 to 4 months depending on your progress. Follow-up subsequent to this will depend on your progress with rehabilitation.

Return to Activities and Work

You will typically wear a brace for 4 to 6 weeks from the date of surgery. Physical therapy exercises will help you regain your range of motion and strength and are started within the first several days after surgery. Your goal is to achieve full

knee extension and 90 degrees of flexion within the first couple of weeks of surgery.

For most patients, a return to sedentary/desk work can occur within 1- 2 weeks after the operation. Light duty work activity usually can be expected within 6 - 8 weeks. More moderate activity typically begins at 3-4 months. It may take 6 to 9 months to return to full sports activities. This is allowed when you are no longer experiencing any pain or swelling, full range of motion has returned, and muscle strength and endurance have been restored.

Aerobic exercises such as a stationary bicycle and walking can begin when you feel comfortable. Light jogging may be resumed by 2 to 3 months.

Golf strokes can be gently started at 3 to 4 months after surgery. The ability to return to sports that involve running, twisting, pivoting and contact typically takes at least 6 months of recovery and exercise. Return to full unrestricted activities may take 9-12 months. A functional knee brace is optional when returning to sports, however, some patients may feel a greater sense of security by wearing one.

Driving

Driving is individual and depends somewhat on which side is your dominant leg. It also depends on if you have a manual vs. automatic transmission car.

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 knee will be particularly sore over the first 2 to 3 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 it could also be a sign of a blood clot. You should never ignore these symptoms and should seek medical attention immediately at the nearest Emergency Room.

Swelling in your knee/leg; this is very common after arthroscopic knee surgery. You should frequently wiggle your ankle and toes.

FREQUENTLY ASKED QUESTIONS:

1) 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.

2) My knee feels numb around the incision. What happened?

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

3) My knee and leg 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 knee, ankle and toes can help. You should wiggle your ankle/toes frequently through the day. If the swelling is getting worse rather than better then you should contact your doctor. In a small percentage of patients, a blood clot (deep venous thrombosis) can develop after arthroscopic knee surgery.

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

It is common for your knee discomfort to be more noticeable at night. Wearing the brace at night and/or supporting the knee with pillows can help. Never place pillows directly behind the knee because one of the most important goals after surgery is to get the knee as straight as possible. Pillows may be placed around the knee or under the heel. Turning the leg and knee together like the way you roll a log on the ground decreases the twisting effect. Using a bag of frozen vegetables or a Cryo-Cuff (specialized ice pack) for 15-20 minutes at a time can be beneficial. Place a towel between the ice pack and skin.

5) 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 incision 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.

6) My incision was healed but opened up at the top this morning? What should I do?

Underneath the skin the tissue is held together with dissolvable material. When the outside sutures/staples are removed sometimes the skin will partially open up at the surface. If this occurs you may mix hydrogen peroxide with water in a 1:1 ratio and apply with Q-tips to the open area once to twice daily. Cover the area with a Bandaid or gauze until it is completely scabbed over.

7) 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 101.5 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.



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

