Anterior Cruciate Ligament Surgery

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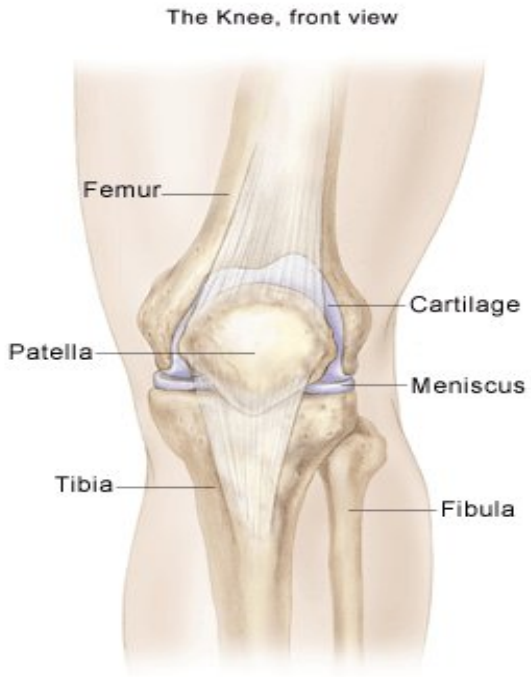
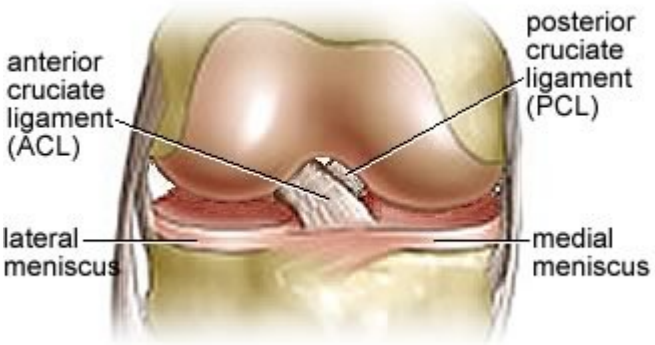
Knee Anatomy

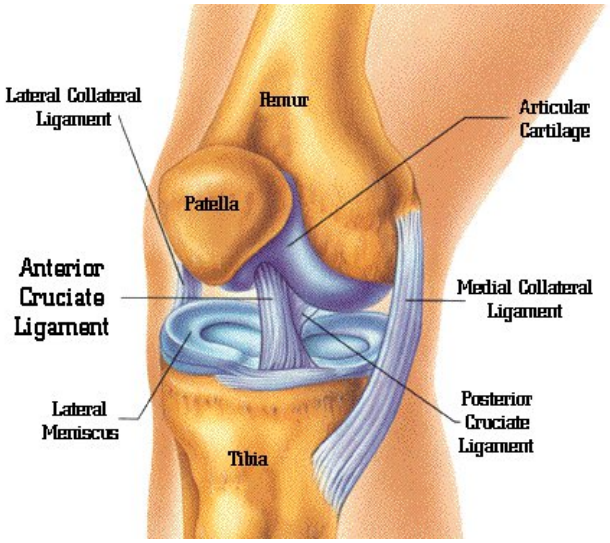
- The bones that make up the knee are the **Tibia, Fibula, Femur and the Patella.**





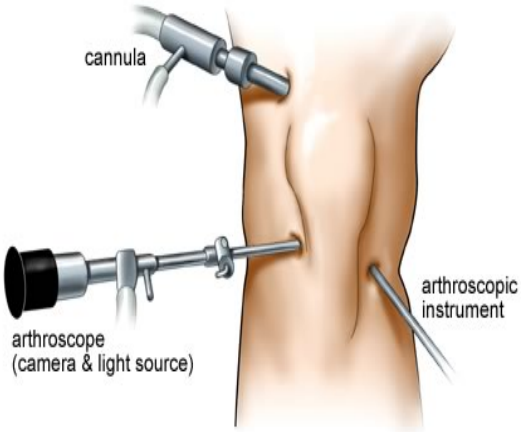
- **enisci** are discs that fill the spaces between the rounded edges of the tibia and femur. These discs spread out stress and help stabilize the knee joint.

- Ligaments attach bones to bones. The **anterior cruciate (ACL)** and the **posterior cruciate (PCL)** ligaments are attached to the tibia and femur. The medial collateral (MCL) ligament and the lateral collateral (LCL) ligaments are additional ligaments adding stability to the knee joint.



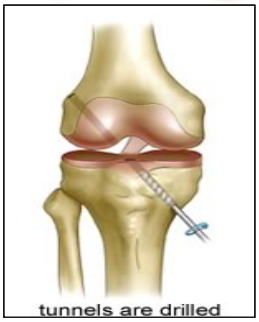
ACL RECONSTRUCTION SURGERY

ACL surgery begins with an arthroscopic examination of the knee for any damage to the cartilage and/or menisci. This surgical technique uses three very small incisions of ¼ inches in length to create "portals" into the knee. A fiber-optic light source illuminates the inside of your knee and a video camera feeds an image to a monitor so the surgeon can see inside the knee. A sterile saline solution is continuously pumped through the knee via a cannula so the operative field is always clear.

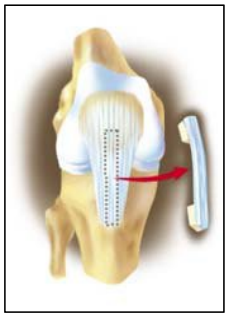


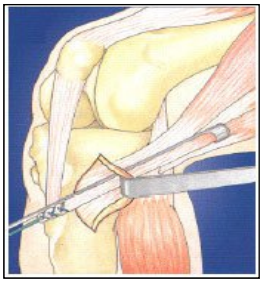
After the knee is examined and repairs are made to the cartilage and menisci (if warranted), the damaged Anterior Cruciate Ligament (ACL) is removed.

Tunnels are then drilled through the bone in the femur and the tibia so that the graft can be placed in the knee, in the same position of the original ACL.



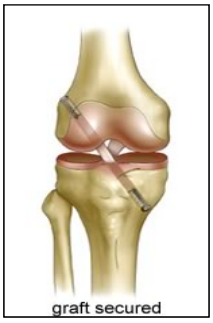
A separate 2 to 3 inch long incision is then made just below the kneecap in order to "harvest" the graft. The incision placement will depend on type of graft (patellar tendon or hamstring tendons).





The graft is then placed into the tunnels, where it is properly tensioned and fixed into place with a screw (tibial side) and a button or pins (femur side).

Once the graft has been fixed in place and any additional damage has been addressed, incisions are closed and a sterile dressing is used to cover the knee.



Day of Surgery

Anesthesia

- You will be under general anesthesia. You will need someone 18 yrs old or older to drive you home and stay with you for the first 24 hours. The anesthesiologist may discus a nerve block to assist with pain control after surgery.

What will happen in recovery?

- You will wake up with ice on your knee
- Before you go home, you will receive your prescription for any medication
    - **Pain Medication / Anti-inflammatories:**
        - Oxycodone and acetaminophen for pain and Naprosyn for inflammation
- At home if you are having any adverse reactions or need pain medication refills, please call the office at 801-314-4900

First week at home

Rest/Ice/Elevation:

- 24 hours a day for the first week
- GET UP every 1-2 hours for circulation and to minimize clot risk
- Minimize your time up for use of the restroom, showering, and changing only
- Maintain a proper barrier between your skin and ice pack gel wrap or bag of ice.

Showering:

- 72 hours after surgery – remove the surgical dressing. Water can run over the surgical site however do not soak surgical incisions.
- Pat dry and cover with dry Band-Aids if needed. No ointment.

Ted Hose (blood clot prevention and swelling management):

- TWO weeks surgical leg

Signs of infection **Call 801-314-4900**

- Fever greater than 101 deg F, Redness beyond the incisions, Worsening / intolerable pain and possibly – nausea, pus or smelly discharge

When do I begin my therapy/exercise program?

- You should have some general ache / soreness, however your home program should not cause sharp pain.
- If your pain is increasing more than 2 points on pain scale, back off of your stretches by being less aggressive or reducing the number of reps.
    - Before you stop them all together, call your physical therapist to discuss.

How much pain am I going to have after surgery?

- Pain is individual however; it is recommended you take your pain medication as prescribed as needed for the first week. Pain medication is not as effective on spiked pain.
- Pain is common
- Ice is a natural analgesic

What are the side effects of general anesthesia and pain medication?

- Some pain medications have side effects causing constipation. Take over-the-counter stool softeners (Colace am and pm while on pain medications as needed). Drink at least 8 glasses of water a day during the first couple weeks following surgery.
- General anesthesia can cause nausea in some patients and difficulty with memory.

Post-Operative Expectations

1st post-operative visit (week 1): (Therapy Only)

- Your knee will be assessed for swelling and range of motion (wear appropriate clothing that allows your knee to be visualized easily)
- Exercise progression and gait assessment
- ROM goal: full extension

2nd post-operative visit (week 2): (Therapy and MD)

- Xrays, review of surgical pictures with MD/PA
- Exercise progression and gait assessment
- ROM goal: full extension and flexion >90 degrees, unless in brace for meniscus repair

4-8 weeks

- Symmetric extension or hyperextension and flexion >120 degrees
- Normal gait mechanics without use of crutches
- Achieving active hyperextension (heel pop off the table)
- Climbing stairs in a normal pattern
- Minimal swelling with ADLs

8-12 weeks:

- Symmetric extension or hyperextension and flexion
- Good hip control with single leg squats
- Being able to walk unlimited time in the community
- Modified swimming program

12-16 weeks:

- Strength of surgical leg vs non-surgical leg approximately 75%
- Initiation of light jogging and jumping program pending appropriate strength and hip control with single leg squats

6-9 months:

- Return to sporting activities pending clearance from sports test
    - Gradual return
    - Bridge program/Return to Soccer program
- Visit with MD and/or PT for clearance

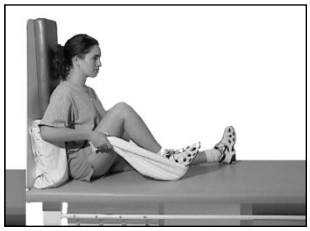
When can I return to work?

- May return to desk work 1-2 weeks after surgery. You may need shortened hours. Other recommendations include having a place to prop surgical leg up, use of ice, and minimizing stair climbing or walking distance
- Prolonged standing and walking job duties may take closer to 1 month post op to return to due to pain and swelling in the knee.
- Heavy duty or labor jobs may not be appropriate until six months post op.

Home Exercise Program

Please begin **exercises the day of surgery** however if the knee is too painful then you may begin the exercises the following day. The expected number of times per day for the exercises can be reduced if pain is too intense and you cannot complete exercises accordingly.

Heel Slide



Sitting with your back supported, pull your foot towards your rear. Assist stretch with hands or towel. Hold for 5 seconds then relax. Repeat 15 times, 6 times per day. Only if no meniscus repair precautions *** **THIS EXERCISE WE DO NOT DO IF YOU ARE IN A BRACE FOR A MENISCUS REPAIR**

ALL EXERCISE BELOW CAN BE DONE WITH A MENISCUS REPAIR

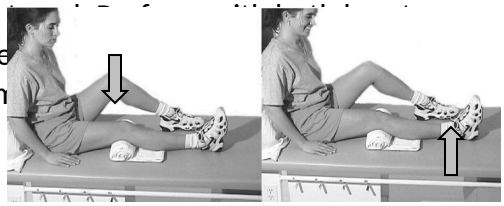
Heel Prop

Lie on your back, prop heel up on a rolled towel or pillows. Heel must be high enough so your calf and thigh are off the ground. Hold for 10 minutes, 6 times per day and whenever sitting.

Toe Pull

Sitting, wrap a strap (belt/dog leash, etc.) around your foot and pull back with one hand straightening the knee to the point the heel lifts off. Stabilize your thigh by pressing your other hand downward on your thigh. The knee should never lift off of the table. Hold for 10 seconds. Repeat 10 times, 6 times per day.

Quad Set



Tighten thigh muscle while pushing your knee down into the [illegible] help improve muscle activation. Try to clear your surgical hee[illegible] 5 seconds then rest for 5 seconds and repeat. Perform 10 tim[illegible]

Ice:

Ice after each session of your exercises for pain relief and to prevent swelling. Do not put ice directly on the skin (put at least one layer of clothing or a towel in between).

Pain with home program:

- It is common to feel discomfort but we try to minimize significant pain.
- We do not recommend pain more than 2 points higher on a pain scale during exercises, pain that lingers more than 1-2 hours without reducing, needs increased pain medication and / or is still present when you wake up in the morning.
- Do not push hard with exercises. Aggressive stretches can cause just as much pain /soreness as too much weight.

How to Use Crutches

The patient will be allowed to **weight bear as tolerated** on the surgical leg if there is no meniscal repair. Only if no meniscus repair precautions*** **IF THERE IS A MENISCUS REPAIR YOU WILL BE PARTIAL WEIGHT BEARTING WITH CRUTCHES FOR 6 WEEKS** Crutches are to be used as needed to ensure safety. The patient can "wean" self from crutches as they feel comfortable – as long as he/she remains safe and can perform a heel to toe walking pattern.

Walking with Crutches

1. You should bear the weight on your hands and not lean on the crutch pads at the armpits when walking.
2. Place crutches forward first.
3. Move your injured leg forward and place heel down landing in line with crutches.
4. Shift as much weight as tolerated onto surgical leg and push down on crutches to "unload" weight.
5. Step through with healthy leg.
6. Roll over toe and bend knee to move your injured leg forward again.
7. Go slowly at first.

Going Up Stairs

1. Approach step closely.
2. Place your health leg up on the step – keep your injured leg and crutches on the ground.
3. Place your weight on your healthy – step up.
4. Bring the crutches and surgical leg up to same step.

Going Down Stairs

1. Approach edge of stair closely, and place weight on healthy leg.
2. Lower crutches and step down leading with the involved leg.
3. Shift your weight to the crutches and injured leg.
4. Carefully place your healthy down on the step.

REMEMBER: UP WITH THE GOOD…DOWN WITH THE BAD

Sitting Down

1. Place the crutches in one hand, and grab the armrest with your other hand.
2. Use the chair and your crutches to lower yourself into the chair slowly.
3. Allow your injured knee to bend as tolerated.

Standing Up

1. Move to edge of the chair, and place the crutches in one hand.
2. Grasp both crutches with one hand and grasp the armrest with the other hand.
3. Carefully push yourself into a standing position using crutches, chair and legs.

Visits to physical therapy and physician follow ups

- **Post-operative visits**
    - **You will see Dr. Wylie or his PA around your 2 weeks, 6 weeks, and 12 weeks.** Other appointments will be scheduled as dictated by your surgeon. All ACL patients will se Dr Wylie at their 6 month appointment
    - **Your physical therapy visits (Starting 7-10 days after surgery)**
        - **Week 1 and 2; Every 2-4 weeks as needed throughout**
        - **Highly independent program**
    - Loose fitting clothing is preferred to allow visualization of your knee and to improve ease of performing exercises. Please also be mindful of appropriate footwear.
    - **If you are workman's comp or have disability insurance,** you will need to see your surgeon every 6 weeks. You are responsible for making sure these are scheduled.
- **Satisfaction Surveys**

Part of your TOSH experience will include receiving a survey in the mail to assess how satisfied you were with your physical therapy visits. These surveys are a valuable asset to our team to know what we are doing well and how we may improve to better serve future patients. We appreciate you taking the time to respond to these.

Phone Numbers

Dr. Wylie's Office number **801-314-4803**
Contact MD office if you go to the emergency department post operatively, need medication refills, have problems with your pain medications or other post-operative concerns

****** Reaches the doctor on call after hours*********
Office Hours: Monday – Friday 8:30 am – 4:30 pm

Physical Therapy Appointment number (at TOSH) **801- 314-4040**
Contact your therapist / therapy staff if you have questions about your post-operative

Physical therapy Office hours:
Mon, Tues, Wed, Thurs 8:00 -5:00
Fri 8:00 – 2:00
Extended hours are sometimes available, please ask your PT

Paperwork
If your insurance is Workman's Comp or you are filing FMLA / time off paperwork / disability forms

- ✓ If you need paperwork filled out, please get these documents to the doctor's office as soon as possible. The paper work can take a couple days to be completed.
  - Phone number – **801-314-4803**
  - Fax number **801-314-4919**
- ✓ You need to provide all the names and phone numbers to where the documentation needs to be faxed.
  - She does not store the information therefore you will need to provide the name's and fax number for any paper work you bring in throughout your care.

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