



WHAT TO EXPECT WITH YOUR 'ACL RECONSTRUCTION' SURGERY:

PLEASE READ THESE INSTRUCTIONS COMPLETELY PRIOR TO YOUR PRE-OPERATIVE VISIT. WE WILL GO OVER ANY SPECIFIC DETAILS OR QUESTIONS YOU MAY HAVE AT THE PRE-OP VISIT. WE WANT YOU TO BE FULLY PREPARED ON YOUR JOURNEY TOWARDS A GREAT RECOVERY.

ACL RECONSTRUCTION SURGERY:

ACL reconstruction surgery involves using a graft to create or reconstruct a new ACL (Anterior Cruciate Ligament). This graft is typically taken from the patient (autograft) and is the gold standard of care for patients under age 35. For patients above age 35, an allograft or tissue using a cadaver is an option.

Autografts have been shown to have a significantly lower retear rate compared to allografts/cadaver tissue in younger, more athletic patients and are strongly recommended for all athletes and any patient under age 35. After age 35 both grafts (autograft or allografts) have comparable results.

Autograft options include harvesting or taking a portion of the patient's own (quadriceps tendon, patellar tendon or hamstrings tendons). Dr. Jazayeri's graft of choice is the quadriceps tendon autograft. This technique involves using approximately a 1cmx7cm portion of the operative leg's quadriceps tendon to create the new ACL. This means you will have an incision over the front of your quadriceps muscle in order to harvest the graft. After the graft is taken, the incision will be closed, and the remainder of the surgery will be performed arthroscopically through a minimally invasive all-inside technique (watch video here: <https://drjazortho.com/pages/acl-reconstruction>).



FAQS

Does using an autograft weaken my knee?

Initially yes. However, with time and dedication to physical therapy most patients are able to regain the majority of their strength. Because autografts have such a high success rate compared to allografts in young athletic patients, they are the graft of choice for such patients. Allografts are not recommended in this population given the significantly higher re-rupture/ retear rate.

Why use a quadriceps over a patellar tendon or hamstring autograft?

Although Dr. Jazayeri performs all 3 types of graft harvesting options for specific situations, the quadriceps tendon autograft is his standard graft of choice.

Advantages:

- Avoid the persistent anterior knee pain that can be a risk with using patellar tendon.
- Avoid sacrificing the hamstring tendons, which play an important role in knee stability.
- Consistent size and reliability of quadriceps tendon.
- Harvesting a significantly smaller percentage of the donor tissue
 - The Quad tendon is a very large muscle/tendon
 - Patellar tendon: standard is to harvest central $\frac{1}{3}$
 - Hamstring: standard to harvest 2 of 3 hamstring tendons

What is the advantage of using allograft/cadaver tissue for ACL reconstruction?

In less active/ non-athletic patients above age 35, allograft have comparable results and avoids the need to sacrifice a portion of a patient's knee. Allografts generally avoid the muscle weakness and provide for a less painful and easier recovery for patients looking to get back to work and recreational sports/activities. If you are above age 35, not an athlete, an allograft is a reasonable option for you.



What is one of the biggest challenges with ACL Surgery/injury?

The most common issue regardless of the graft choice (autograft or allograft) is the muscle loss and strength weakness that is seen after an ACL injury. Unfortunately, this loss of muscle size and strength begins immediately after tearing the ACL. Nature's attempt to protect the injured knee is to stop the muscular nerve activation which leads to a rapid loss of muscle. This issue is further compounded by the stress of surgery which further causes muscle weakness. Though surgery will help restore that ligament stability, the muscle loss that is often seen can be profound. This is why it is crucial to start a PREHAB exercise program as soon as you can to help prepare for a faster recovery.

The Duration of ACL Surgery: (approx. 2 Hours)

Each patient's actual operation time will slightly differ depending on need for additional meniscal, cartilage or ligament repair.

The Duration of the entire Surgical Day: (approx. 6 hours)

- You will be asked to come to the hospital 2 hours prior to your surgical start time.
- In the preop area you will get checked in, and meet your anesthesiologist.
- After a pain/nerve block is performed by the anesthesiologist in the preop area you will be taken to the operating room.
- Set up and preparation of your knee surgery including general anesthesia induction will take approximately 30 minutes.
- The average duration for surgery itself is two hours.
- After your ACL surgery is completed, a gauze dressing, ice machine, TED hose stockings, and a knee brace will be placed on your knee. After this is all secure, the anesthesiologist will wake you from general anesthesia and next take you to the recovery room. This process will take approximately 30 minutes.
- Dr. Jazayeri will personally speak to your designated point of contact after surgery is completed and review the operative details.
- You will spend approximately 1 hour in the recovery room prior to your discharge.



Recovery Timeline:

You will begin with slow range-of-motion exercises immediately following on your 1st post-op day.

- Use the MHT (myHealthTrack) app 'POST ACL' track to guide your recovery exercises starting the 1st day after surgery. You will be familiar with this APP, as this is the same APP that is used for the 'PRE-OP ACL' track. (*you will have to log back in to switch from the 'PRE ACL' to 'POST ACL' track)

Begin in-person physical therapy approximately 2 weeks after surgery.

- Each patient/athlete will have a slightly different recovery timeline. The rate at which return back to sports/work/daily activity is multifactorial.

These Factors Include:

Prehab: Patients who participate in a pre-surgical prehabilitation program are stronger going into surgery and have a much easier recovery. A minimum of 6-8 weeks of dedicated prehabilitation exercise protocol is strongly recommended to give yourself the best opportunity to excel in your recovery. Start your prehab exercises as soon as possible. Do not waste the time from now until your day of surgery. Log in to the MHT (myHealthTrack) app and start your path to recovery today.

Rehab: Post- surgical physical starts on your first day after surgery. Your dedication and consistency to this will make all the difference.

Most patients will need the support of crutches for approximately 2 weeks after surgery. Once you have good strength and control of your quadriceps you will wean off the crutches.



EXERCISE:

Stationary Bike: 2 wks

Can start w low resistance on a stationary bike approximately 2 weeks after surgery if you have enough range of motion to allow a full cycle on a bike.

Jogging: 3-4 months

- Your physical therapist will confirm when you are ready

Running: 5-6 months

- Your physical therapist will confirm when you are ready

Agility/Cutting movements: 6-8 months

- Your physical therapist will confirm when you are ready

Full return to contact sports: 12 months

- Must demonstrate quadriceps strength ~90% of normal side
- Pass stability testing: Dr Jazayeri and Physical therapist will communicate and confirm when you're safely cleared to return to play.
- Don't rush this process. A common reason for retearing of ACL graft is return to sport prior to 12 months.



SURGERY DAY:

PLEASE DO NOT EAT ANY SOLID FOODS AFTER MIDNIGHT THE NIGHT PRIOR TO SURGERY.

- **OK to drink clear fluids up to do hours prior to surgery:**
 - Carbohydrate loading clear pre-op drink
 - Gatorade (recommended)
 - Apple juice
 - Black coffee (no creamer/or milk)
 - Tea

PRIOR TO BEGINNING:

- The anesthesiologist may give you a nerve block (in addition to your general anesthesia) to help decrease the post-operative pain. This pain block typically lasts 12-24 hours after surgery.
- It is important to take your oral post-operative home pain medications prior to the block wearing off. Please understand that it is normal to often experience more pain in the middle of the night or the following day, as this is the expected course of the nerve block wearing off.
- It is recommended that you “stay ahead” of the pain, and take a pain medication tablet when you get home and/or prior to going to bed.

ICE MACHINE:

- A Cryo-cuff (Ice Machine) will be placed on your knee in the operating room. For the first 1-2 weeks following surgery, keep the cuff on as much as possible. This will help reduce the swelling and minimize the pain.
- You will need to continuously change the ice water so that it remains cold.



BRACE:

- Your post-operative knee brace will be applied in the operating room and is to be worn for the first 2 weeks. You must wear the brace at all times except when doing your range of motion exercises. You should wear the brace while sleeping and showering as well.
- Knee will be in extended position at all times (ambulation, sleep, rest/elevation, shower) EXCEPT for (ROM) range of motion exercises that start immediately on Post op Day #1.
- You may only remove the brace for short periods when you are sitting or when performing your exercises. You may wear this over clothes.
- Range ROM exercises are encouraged to be done 4-5 times a day.
- 15-20 minutes per session, spending a minimum of 1 hour per day working on ROM exercises.
- At 2 weeks post-op, you may be fitted for another brace as needed.

TED HOSE STOCKING:

- These anti-embolism stockings will be placed on your leg in the operating room.
- They will help to prevent swelling and blood clots in your leg. Signs and symptoms of a blood clot include severe pain, redness, and swelling and hardness in the calf muscle and/or behind the knee.
- You should wear the stockings on your leg until seen in the office for your 1st post-op visit at 2 weeks. Can remove the stocking if needed to wash them. *Don't put the socks in the dryer.
- Be sure to have the socks pulled up all the way to your thigh. DO NOT wear them halfway down your calf, as this will cause swelling.
- Be sure to move/rotate both ankles frequently during the day. Pump them up and down. This will promote circulation and drainage of swelling.

CRUTCHES:

- Crutches will be provided after surgery. Use your crutches while walking.
- Crutches should be used for the first 2-3 weeks. At that point you may wean yourself from them.
- You can put as much weight on your legs as tolerated. (place as much weight on your leg as you feel comfortable, this may initially be 25-50%) unless specifically instructed.
- By 3-4 weeks, you should be prepared to discontinue your crutches altogether.



POST-OP MEDICATIONS:

You will be given the following prescriptions at the pre-op visit for use after surgery:

*Please fill them out prior to surgery so they will be available to you post-op.

o **Percocet 10/325 mg (narcotic):** take 1-2 pills as needed every 6 hours. *The narcotics are usually needed for the first 2 weeks after surgery. After that, if pain is still an issue another non-narcotic pain medication (Tramadol) will be provided in addition to Tylenol, NSAIDs for pain control.

o **Mobic 15mg (NSAID: anti-inflammatory):** take 1 pill every 12 hours (first 2 weeks)

o **Colace 100mg (stool softener):** take 1 tab 2-3 times a day while taking the pain medications as these often make patients constipated.

o **Zofran 4mg (anti-nausea):** take 1 tab every 6 hours as needed for nausea (can be a side-effect after anesthesia)

***IF YOU HAVE ANY ADVERSE EFFECTS WITH THE MEDICATIONS, PLEASE CALL OUR OFFICE during clinic hours at 855-892-0919 or the After-hours nurse advice at 1-888-576-6225.**

DAY 1 - TO FIRST POST-OP VISIT:

DRESSINGS:

- There may be some bleeding and fluid leaking from the incision site. This is normal after surgery. This may continue for 24-36 hours. You may change and/or reinforce the bandages as needed.
- Change 4 x 4 gauze dressings every other day, or daily if they get wet or soiled.
- At three (3) days from the date of surgery, you may remove your dressings.
- Apply normal household band-aids to your incisions (just enough to cover the incision itself – a lot of band-aids are NOT needed)
- DO NOT apply or use any ointments, betadine, peroxide, etc.
- DO NOT touch, remove, change or clean if your incision has steri-strip tapes over it. (the steri-strip tapes help facilitate wound closure)
- Two (2) weeks is the standard follow-up time for suture removal and initial assessment of healing.
- There may be a tag of suture at either end of the incision. *This will be removed in the clinic two (2) weeks from the date of surgery.



SWELLING:

- There may be MORE swelling on days 1-3 than there is on the day of surgery. *This is normal.
- The swelling will decrease with the anti-inflammatory medication, the cryo-cuff/ice-machine and most importantly keeping the leg elevated.
- The swelling will make it more difficult to bend your knee. *As the swelling decreases with time your motion will become easier.
- You may develop swelling and bruising that extends from your knee down to your calf and perhaps even to your foot over the next week. Do not be alarmed. *This too is normal, and it is due to gravity.
- There may be some numbness adjacent to the incision site. *This may last for 6-12 months.
- It is also normal to develop a low-grade fever after surgery (up to 100.5°). * This can last 2 days after surgery. If you have a fever above 100.5+ please let us know.
- Keep your leg elevated to decrease swelling, which will then in turn decrease your pain. When in bed, your leg should be straight with a pillow under the ankle, NOT under the knee.
- Do not sit for long periods of time with your foot in a dependent position (lower than the rest of your body), as this will cause increased swelling in your knee and leg. When sitting for any significant period of time, elevate your leg and foot above the level of your heart.
- As your pain and swelling decrease you can start to move around more and spend more time up on your crutches.

BATHING:

- You may take a shower but it is very important that you keep your wounds completely dry for the first 7 to 10 days after surgery.
- To avoid getting your knee wet: wear a waterproof bag (garbage bag) in the shower. The shower bag can be very slippery on the bottom, so be careful. Dr. Jazayeri prefers you to wear your brace in the shower, under a shower bag. At two (2) weeks you may remove your brace to shower.
- Suggestion: Cut a hole in the bottom of the shower bag so that the foot rests on the shower floor. This will help prevent slippage.
- Avoid hot tubs or the ocean for four (4) weeks from the date of surgery.



RANGE OF MOTION:

- Start your home exercise program the day after surgery. Progress as tolerated.
- Remove your brace 4-5 times per day to straighten and bend your knee. *This should be done while laying in bed or on the floor, sliding your heel towards your buttock to help bend your knee.
- You can take off brace during this period for ROM exercises 4-5 times a day
- 15-20 minutes per session, spending a minimum of 1 hour per day working on ROM exercises.
- Your #1 goal is to get full extension and 90 degrees of flexion by 2 weeks after surgery.
- Extension is the most important motion to work on in the first 2-3 weeks after surgery
- Placing a towel under your ankle will help to keep your knee in full extension (straight).

REHAB:

- Please refer to the **MyhealthTrack** mobile application to start your rehab process starting on the first day after surgery
- In person Physical therapy should start approximately 2 weeks after surgery.
- You can combine both in person physical therapy and **MyhealthTrack** to get the most out of the rehabilitation process.
- **Please confirm that your in person physical therapy appointment is scheduled by calling 818-719-2930.**

DRIVING:

- Prior to your discharge, you must arrange for transportation. It is illegal to operate a motor vehicle while taking certain prescription medications.
- Patients who have had surgery on the left knee, and who have an automatic transmission may drive when they can comfortably get the leg in and out of the car.
 - Usually by 2 weeks.
- Patients who have had surgery on the left knee and have standard transmissions, should not drive until they have good muscular control of the leg.
 - This usually takes 3-4 weeks.
- Patients who had surgery on the right knee should not drive until they have good muscular control of the leg.
 - This usually takes 4-5 weeks.



REST:

- Rest is a key element to recovery. Please take time to rest your knee. Don't overdo it!
- You will need to keep your leg elevated and ice your knee as much as possible.

RETURNING TO WORK:

- You may return to sedentary work/school when you feel up to it, your pain medication requirements decrease, and you can safely walk with your crutches. *Typically this is between 5 - 10 days after surgery.
- Patients who have jobs where light duty is not permitted; policemen, firemen, construction workers, laborers, will be out of work for a minimum of 6 - 12 weeks.

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Wishing you a speedy recovery!

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