

# MPFL RECONSTRUCTION WITH PATELLAR TENDON IMBRICATION

Before Your Surgery

## YOUR SURGERY AT A GLANCE

|                         |                                                                                                                                                                       |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SURGERY</b>          | MPFL reconstruction with a donor-tissue graft, plus tightening of the patellar tendon (imbrication). Usually with a lateral retinacular lengthening                   |
| <b>HOW LONG</b>         | About <b>1–1.5 hours</b>                                                                                                                                              |
| <b>ANESTHESIA</b>       | General anesthesia, with a <b>nerve block</b> for pain after surgery                                                                                                  |
| <b>WHERE</b>            | Proliance Surgery Center at Valley (PSCV) or Valley Medical Center (VMC), both in Renton. We will tell you which. <b>You go home the same day</b>                     |
| <b>AFTER SURGERY</b>    | Full weight, brace <b>locked straight</b> for standing and walking <b>6 weeks</b> , crutches <b>2–3 weeks</b> . PA visit at <b>2 weeks</b> . X-rays at <b>6 weeks</b> |
| <b>PHYSICAL THERAPY</b> | Starts <b>5 to 7 days</b> after surgery, <b>2 times a week</b> . Schedule it before surgery                                                                           |

### Do these now, before surgery

- **Schedule physical therapy** for 5 to 7 days after surgery. You will get the referral at your pre-op visit.
- **Arrange a driver** and someone to stay with you for the first 24 hours.
- **Get your handicap placard** at a DMV office, using the application from your clinic visit, so you do not have to deal with it while recovering.
- **Get fitted for an ice machine** and stock up on bags of ice.

## About Your Injury

The medial patellofemoral ligament (MPFL) is the main stabilizer that keeps your kneecap (patella) from sliding out of its groove toward the outside of the knee. It acts as a check-rein between the inner edge of the kneecap and the thigh bone (femur). When the MPFL is torn or stretched, the kneecap can dislocate or subluxate (partially shift out of place) during activity.

Patellar instability most often happens during twisting or pivoting movements. It is especially common in young athletes between the ages of 15 and 25. Most people feel the kneecap shift out of place, then major swelling and trouble bending the knee. Some have repeat episodes, with the kneecap slipping with less and less force each time.

Risk factors for repeat instability include a shallow groove on the femur (**trochlear dysplasia**), a kneecap that sits too high (**patella alta**), loose ligaments throughout the body (**ligamentous laxity**), and an increased distance between the tibial tubercle and the trochlear groove (**elevated TT-TG distance**). We check for these with X-rays and MRI before surgery.

Why surgery: after a first-time dislocation, physical therapy and bracing are often tried first. Surgery is recommended when the kneecap keeps dislocating or subluxating despite rehabilitation, or when imaging shows major structural risk factors that make future dislocations very likely.

## About Your Surgery

MPFL reconstruction replaces the torn MPFL with a **graft**, a piece of tissue attached to the kneecap and femur in the position of the original ligament. Over time, the graft heals into the bone and works as a new check-rein. I typically use donor tissue (**allograft**), because it gives a strong new ligament.

I also tighten the **patellar tendon** (the thick cord below the kneecap) at its attachment. This is called a **patellar tendon imbrication**, and it improves how your kneecap tracks in its groove. The tightened tendon needs time to heal. That is why your brace stays **locked straight whenever you are standing or walking for the first 6 weeks**.

A **lateral retinacular lengthening** is typically done at the same time. It loosens tight tissue on the outer side of the kneecap that may add to the tracking problem. Rebuilding the inner restraint (MPFL) and lengthening the outer tightness (lateral retinaculum) together center the kneecap in its groove.

Arthroscopy first checks the cartilage, confirms the diagnosis, and shows how the kneecap tracks. The graft is then placed through small incisions on the inner knee and secured to the bone with anchors or screws. Then the patellar tendon is tightened.

### Risks of surgery

Stiffness, infection, blood clots, numbness around the incisions, continued pain and swelling, graft failure or re-dislocation, and fracture of the kneecap (rare). We will work together to lower these risks and make your recovery as smooth as possible.

### Learn more and watch the videos

My website covers kneecap instability, MPFL reconstruction, and recovery in more detail. [merrittsurgery.com/surgeries/patella-dislocation-and-instability](http://merrittsurgery.com/surgeries/patella-dislocation-and-instability)



Scan to learn more  
and watch videos

## The Day of Surgery

*What to expect, step by step.*

### 1 A couple of days before

The nursing staff will call to confirm your check-in time and when to stop eating and drinking.

### 2 Check in

Check in at the front desk at your assigned time. In the pre-op area, with your family, our nurses will help you change, start an IV, and review your health history.

### 3 Meet the team

I will meet with you to review the plan, and the anesthesia team will explain their approach.

## 4 Surgery

When the operating room is ready, you will walk back with a nurse. After anesthesia is given, you will not remember anything until the recovery room. While you are in surgery, your family can pick up your post-operative medicines at the pharmacy (next to the surgery center at PSCV, or near the operating rooms at VMC).

## 5 Recovery room and going home

You will be monitored until you are awake, have some crackers and juice, and are comfortable. Then you will change into your clothes and be wheeled to your car. **You need someone to drive you home and stay with you for the first 24 hours.**

# After Surgery: What to Expect

Pain, swelling, limited motion, and soreness on the inner side of the knee where the graft was placed are normal and improve over time. You will wear a hinged knee brace **locked straight whenever you are standing or walking** for the first **6 weeks**. This protects the tightened patellar tendon. **Never put weight on a bent knee during these 6 weeks.** You can take the brace off for bending exercises, PT, resting, and sleep, and bend as much as is comfortable while sitting or lying down. At 6 weeks the brace is unlocked for walking, then weaned off, usually by **8 weeks**.

You can put **full weight** on your leg from day 1, as long as the brace is locked straight. Unlike surgeries with a bone cut (osteotomy), you do not need to limit how much weight you put on the leg. You will use crutches with the brace for the first **2–3 weeks** and wean off them as your strength and confidence improve.

**VMO (inner quadriceps) strengthening** is a key focus throughout recovery. The VMO helps stabilize the kneecap and works with the new graft to prevent future instability. Your recovery may be faster or slower depending on your overall fitness and any additional injuries. The key message: **we need to protect the reconstruction**, even though you will be very active and working hard in every phase of recovery.

| When               | What to expect                                                                                                                                                                                                                                                                                                                                   |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Weeks 1–2</b>   | PA visit at 2 weeks to check incisions and early recovery. Pain, swelling, and limited motion are normal. Full weight as tolerated with crutches and the brace locked straight for walking and standing. Bending as tolerated while sitting or lying down. Quad and VMO activation exercises begin. PT starts 5–7 days after surgery, 2× a week. |
| <b>Weeks 2–6</b>   | Brace stays locked straight for walking and standing. Wean off crutches as strength returns. Bending should reach <b>90° by week 4</b> and keep progressing. Second clinic visit around 6 weeks with X-rays. Most people can return to desk work or school.                                                                                      |
| <b>Weeks 6–12</b>  | Brace unlocked at 6 weeks, then weaned off, usually by <b>8 weeks</b> . Begin functional strengthening such as mini-squats, step-ups, and leg press. Pain and swelling decrease a lot. No resisted open-chain knee extension exercises.                                                                                                          |
| <b>Weeks 12–20</b> | Single-leg strengthening. <b>Jogging can begin around 14–16 weeks.</b> Two-leg plyometric exercises with PT guidance.                                                                                                                                                                                                                            |
| <b>Months 5–6</b>  | <b>Return to sport around 5–6 months</b> with PT clearance. A formal return-to-sport evaluation is often done to confirm you are ready. <b>No cutting and pivoting sports before 6 months.</b>                                                                                                                                                   |

### Driving

- **Right leg:** not before 6 weeks, and not while the brace is locked. You must be off crutches, have the brace unlocked or off, be off narcotic pain medicine, and be able to brake hard. Usually about 6–8 weeks.
- **Left leg:** typically 2–4 weeks, once you are off narcotic pain medicine.

## Preparing for Surgery

### Medicines and supplements before surgery

- The pre-op nurse will tell you when to stop eating and drinking.
- **Stop fish oil, vitamin E, and herbal supplements 5 days before surgery.**
- **Tell us** if you take a blood thinner (such as Eliquis, Xarelto, warfarin, or Plavix) or a weekly diabetes or weight-loss injection (such as Ozempic, Wegovy, or Mounjaro). These may need to be stopped earlier.

### Physical therapy before surgery (prehab)

Physical therapy before surgery is recommended to strengthen the VMO (inner quadriceps), improve range of motion, decrease swelling, and restore normal walking. This typically takes **4–8 weeks** after your most recent dislocation. Working on these things before surgery leads to a faster and better recovery.

### Nutrition

What you eat has a direct effect on how well you heal. Start good nutrition before surgery and continue through your recovery. Our nutrition guide explains what to take and how much: [merrittsurgery.com/surgeries/nutritional-optimization](https://merrittsurgery.com/surgeries/nutritional-optimization)



Scan for the nutrition guide

### Ice machine: my #1 recovery recommendation

An ice machine is the single best investment you can make for your recovery. It makes icing **20 minutes on, 20 minutes off** easy, without the risk of frostbite, and is far easier than ice bags or gel pads. Our clinic staff can fit you for one before surgery and show you how to get the most out of it. Stock up on bags of ice: the machine can use a bag a day. **Scan the code to learn more or buy one.**



Scan for recovery tools

### Get your home ready

- Remove throw rugs or obstacles that might catch a crutch and cause a fall.
- Have clean sheets and comfortable clothes ready.
- Stock the refrigerator with healthy food, and buy bags of ice for the ice machine.

**Day-of-Surgery Checklist**

- ☐ Verify your check-in time and follow the instructions on when to stop eating and drinking
- ☐ Physical therapy scheduled for 5–7 days after surgery
- ☐ Bring your brace (you will be fitted at your pre-operative visit)
- ☐ Wear comfortable clothes that fit over a brace (sweatpants work well)
- ☐ No perfume or lotion on your skin
- ☐ Remove jewelry or leave it at home
- ☐ Ice machine and bags of ice ready at home for when you return
- ☐ A driver, and someone to stay with you for the first 24 hours
- ☐ If you are under 18: one family member must stay at the surgery center or hospital during the entire surgery

**Contact Information**

|                              |                                             |
|------------------------------|---------------------------------------------|
| Questions about your surgery | (425) 656-5060                              |
| PSCV Surgery Center          | (425) 226-2041                              |
| Surgery scheduling           | (425) 528-7155                              |
| Pre-op nurse                 | (425) 291-1465                              |
| Billing                      | (425) 291-1414                              |
| PSCV address                 | 4009 Talbot Rd S, Ste 200, Renton, WA 98055 |
| VMC address                  | 400 S. 43rd Street, Renton, WA 98055        |