

PATELLA FRACTURE REPAIR (COMMINUTED)

Before Your Surgery

YOUR SURGERY AT A GLANCE

SURGERY	Open reduction and internal fixation (ORIF) of the kneecap through an incision on the front of the knee
HOW LONG	About 1 hour
ANESTHESIA	General anesthesia, with a nerve block for pain after surgery
WHERE	Proliance Surgery Center at Valley (PSCV) or Valley Medical Center (VMC), both in Renton. We will tell you which. You go home the same day
AFTER SURGERY	Brace locked straight , no bending for 2 weeks . Full weight as tolerated. PA visit at 2 weeks . Surgeon review at 6 weeks
PHYSICAL THERAPY	Starts 5 to 7 days after surgery, 2 times a week . Schedule it before surgery

Do these now, before surgery

- **Schedule physical therapy** for 5 to 7 days after surgery.
- **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

A patella fracture is a break in the **kneecap**, the small, round bone at the front of the knee. It forms the outer surface of the kneecap joint (the patellofemoral joint). The kneecap works like a pulley for the quadriceps muscle (the quad), greatly increasing the force the quad can make to straighten the leg.

These fractures happen from direct trauma, such as a fall onto the knee, hitting the dashboard, or a direct blow. They can also happen from a sudden, forceful quad contraction. Fracture patterns vary. **Displaced** fractures need surgical repair. **Comminuted** fractures, where the bone shatters into several pieces, are the most complex and need a combination of fixation methods.

X-rays confirm the diagnosis, and CT scans help with complex patterns. The key question is whether the **extensor mechanism** (the system that straightens your knee) is intact.

Your fracture: a comminuted pattern (several pieces) that needs a more extensive repair. Because the fixation is more complex, your rehabilitation follows a slower, more protective plan than for simple fractures, so the repair can heal safely.

About Your Surgery

The surgery is an **open reduction and internal fixation (ORIF)**. Through an incision over the front of the kneecap, the pieces are put back together and held with a combination of screws, tension band wiring, mesh plating, or suture-based constructs, depending on the pattern.

With many small pieces, the goal is to save as much of the kneecap as possible while making the repair stable enough for guided rehabilitation. The fixation may be less strong than for a simple two-piece fracture. So **your knee is kept fully straight (no bending) for the first 2 weeks**, letting early healing start before motion begins. This is more protective than the simple-fracture plan.

The hardware sits just under the skin, so kneeling can be uncomfortable. About **20–40%** of people choose to have it removed at one year or later. It is a short outpatient surgery.

Risks of surgery

Stiffness, infection, blood clots, numbness around the incisions, continued pain and swelling, hardware irritation, loss of fixation, arthritis after the injury (posttraumatic arthritis), and the need for more surgery. We use a nerve block and a pain plan after surgery to keep narcotic use as low as possible.

Learn more on my website

My website covers patella fractures, their repair, and recovery in more detail.
merrittsurgery.com/surgeries/patella-fractures



Scan to learn more

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, have some crackers and juice, and get help changing into your clothes. Then you will 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 stiffness are normal and improve over time. The brace is **locked at 0° at all times for the first 2 weeks**, then locked for walking and sleep through **6 weeks**. You can put **full weight on the leg as tolerated** with the brace locked, using crutches as needed for balance.

Bending starts at week 2 (at home, lying or sitting, and at PT) and reaches **90° by weeks 8–9**. This slower plan protects the more complex repair. **Quad activation starts on day 1**, even while the knee is straight, with electrical muscle stimulation (NMES) from your therapist at PT.

When	What to expect
Weeks 0–2	Brace locked at 0°. No bending the knee. Full weight as tolerated, crutches as needed. Quad squeezes every waking hour. NMES with your therapist at PT. Gentle upward kneecap glides by your therapist only. Straight-leg raises once your quad allows. Ankle pumps every hour.
Weeks 2–6	Bending starts at week 2, with assisted heel slides to 50° at home and at PT. Full kneecap glides (all directions) begin. Bending adds 10° a week from week 4, 60° (week 5), 70° (week 6), 80° (week 7), 90° (weeks 8–9) . Stationary bike once you reach 50°, rocking the pedals and partial turns within the weekly limit.
Weeks 6–9	Surgeon review at week 6 to check healing and start weaning the brace. Goal of 90° by weeks 8–9. Straight-leg raises with resistance. Wean off any crutches as quad control improves.
Weeks 10–16	Brace weaned and stopped. Resisted knee straightening begins once the fracture has healed (weeks 10–12). Mini-squats, step-ups, and leg press begin. Full bike turns once you bend about 110°. Goal of full bending (130° or more) by weeks 14–16. Elliptical at week 13.
Weeks 18–22	Walk-jog running program begins once you pass an 8-inch step-down test, your quad strength is at least 70% of the other leg, and I clear you. Two-leg jumping begins. This is later than for simple fractures, so the bone is solid.
Months 6–8	Return to cutting, pivoting, and sport-specific activity. Formal return-to-sport testing, with quad strength and single-leg hop tests at least 90% of the other leg. Surgeon clearance required. The published average return to sport is 7 months .

Driving

- **Left knee:** usually **1–2 weeks** (automatic car), once you are off narcotic pain medicine.
- **Right knee: not before 6 weeks**, usually about 6–8 weeks, and only once you are off crutches, the brace is unlocked or off, you are off narcotic pain medicine, and you can brake hard.

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.

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



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