

OSTEOCHONDRAL ALLOGRAFT OF THE FEMORAL CONDYLE

Before Your Surgery

YOUR SURGERY AT A GLANCE

SURGERY	Osteochondral allograft (OCA): a size-matched donor bone-and-cartilage plug replaces the damaged spot on the end of your thigh bone
HOW LONG	About 1–1.5 hours
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	Hinged knee brace and crutches, toe-touch for 6 weeks . PA visit at 2 weeks
PHYSICAL THERAPY	Starts 5–7 days after surgery, 2 times a week . Schedule it before surgery

Do these now, before surgery

- **Schedule physical therapy** for 5–7 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

Articular cartilage covers the ends of the bones in the knee and lets them glide with almost no friction. It has no blood supply, so it cannot heal itself. A cartilage injury left alone does not get better. It gets larger.

Think of the joint surface as a road. A focal cartilage defect is a pothole in an otherwise intact surface. Our goal is to fill that pothole before the road wears down further. OCA is for younger, active patients with meaningful focal damage who want to preserve their natural joint.

Cartilage injuries happen from traumatic events (ACL tears, kneecap dislocations, hard landings), osteochondritis dissecans (OCD), or years of overload from a leg that is out of alignment. Symptoms include deep aching, swelling after activity, and sometimes catching or locking. An MRI is needed for diagnosis.

Your imaging shows a cartilage defect on the **femoral condyle**: the part of the end of the thigh bone (femur) that makes up your knee joint.

Why surgery: a cartilage defect left alone does not get better. It gets larger. Filling the pothole now protects the rest of the joint surface.

About Your Surgery

An **osteochondral allograft (OCA)** is a single-stage surgery. It replaces the damaged cartilage **and** the bone underneath with a size-matched graft from a tissue bank. The graft is a fully formed plug: a living cartilage surface already in place on a cylinder of bone.

The graft is matched to the size and curve of your defect using your imaging before surgery. It heals by **bone-to-bone healing**: the bone part of the graft fuses with your own bone. This is strong, and it allows a faster recovery than cell-based procedures. Donor tissue comes from an accredited tissue bank and goes through rigorous screening and testing for infectious diseases. The risk of disease transmission is extremely low.

Risks of surgery

Stiffness, infection, blood clots, numbness around the incisions, continued pain and swelling, graft failure, and the need for more surgery. We use a nerve block and a pain plan after surgery to keep narcotic use low.

Learn more and watch the videos

My website covers cartilage injuries, the difference between OCA and other cartilage repairs, and recovery in more detail. merrittsurgery.com/surgeries/cartilage-repair-restoration



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 stiffness are normal after surgery and improve over time. You will be in a hinged knee brace and on crutches.

You will be **toe-touch weight bearing for 6 weeks**: the crutches carry your weight, and your foot touches the floor with **about 10 to 15 pounds**, for balance. The brace is **unlocked from day 1** and worn for walking until you are off crutches, usually about **8–10 weeks**. Motion exercises begin on day 1, with a goal of **90° of bending by 2 weeks**. Don't force it. You do not need a CPM (continuous passive motion) machine.

When	What to expect
Weeks 0–6	Toe-touch weight bearing : crutches carry your weight (about 10–15 lb, for balance). Hinged brace unlocked for walking from day 1. Bending goal 90° by week 2 (don't force it). Quad sets, straight-leg raises, heel slides, ankle pumps, and kneecap mobilization. NMES (electrical muscle stimulation) starts at your first PT visit. Recumbent bike (low resistance) once bending reaches about 100°, usually weeks 4–6.
Weeks 7–10	Weight bearing increases once quad control is confirmed. Two crutches, then one, then none by weeks 8–10 . Stop the brace once you are off crutches. Mini-squats and step-ups begin.
Weeks 10–14	Full weight bearing. Progressive strengthening: squats, leg press, and lunges in deeper ranges. Low-impact conditioning: cycling, swimming, elliptical.
Weeks 14–16	Plyometric exercises begin. Running program starts (flat surface) once you pass the 8-inch step-down test with good mechanics.
Months 4–6	Sport-specific training with increasing intensity. Cutting, pivoting, and agility drills begin. Formal return-to-sport testing.
Month 6+	Return to full sport after meeting all strength and functional criteria and surgeon clearance. MRI and clinical assessment as needed.

Driving

- **Right leg**: you must be off crutches, have the brace unlocked or off, be off narcotic pain medicine, and be able to brake hard. Usually about 10–12 weeks.
- **Left leg**: typically 4–6 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.
- **No anti-inflammatory medicines.** Stop ibuprofen (Advil, Motrin), naproxen (Aleve), meloxicam, celecoxib (Celebrex), diclofenac, and anti-inflammatory creams and gels such as Voltaren **7 days before surgery**, and do not take them for **6 weeks after surgery**. They can slow bone and cartilage healing. The low-dose (81 mg) aspirin we prescribe after surgery is different: take it as directed.

Physical therapy before surgery (prehab)

Physical therapy before surgery is recommended to strengthen the VMO (inner quadriceps), improve motion, decrease swelling, and restore normal walking. This usually takes **4–8 weeks** after your most recent injury episode, and it 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



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.

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, and leave jewelry 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