

Osteochondral Allograft (Kneecap) — Pre-Operative Patient Guide

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Cartilage and Bone Defect of the Kneecap (Patella) or Trochlear Groove

Your Condition & Procedure

The condition

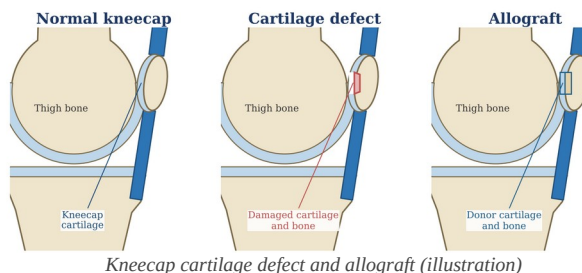
Articular cartilage covers the back of the kneecap (**patella**) and the groove it glides in (**trochlea**). Defects of both cartilage and bone—from injury, kneecap dislocation, or OCD—heal poorly and cause pain at the front of the knee with stairs, squatting, and sitting, plus swelling and grinding.

The surgery

An **osteochondral allograft** replaces the damaged area with matching donor cartilage and bone, press-fit through an open incision (typically outpatient). Depending on your kneecap's alignment and stability, your surgeon may also shift the bump on the shin bone (**TTO**) or rebuild the MPFL ligament. The final plan is determined during surgery.

Risks & benefits

Benefits: Most patients have less pain at the front of the knee and better function. **Risks** are uncommon and include infection, blood clots, the graft not healing or wearing, ongoing front-of-knee pain, a very small risk of disease transmission from donor tissue, injury to nearby structures (such as nerves, blood vessels, or cartilage), stiffness, persistent pain, and the need for further surgery. These will be reviewed with you in detail before surgery.



Before Surgery

- **Medications:** We will tell you what to stop and when (e.g., blood thinners, anti-inflammatories, some supplements, weight-loss injections).
- **Fasting:** Follow the instructions from your surgery coordinator/facility. In general, you should have nothing to eat or drink starting at midnight the night before surgery.
- **Nicotine:** Stop all nicotine products—they slow healing.
- **Equipment:** A knee brace and crutches are typically arranged beforehand. Practice with crutches.
- **Physical therapy:** Schedule your first visit for within about a week after surgery.
- **Home:** Plan for a helper for the first few days and remove trip hazards.
- **Medical history:** Let us know if you or anyone in your family has a history of blood clot disorders or a malignant hyperthermia reaction to anesthesia.
- **Health:** Call us if you develop a fever, illness, or skin problem near the knee.

Day of Surgery

- If instructed, take blood pressure/heart medications with a small sip of water.
- Arrive at the time given by your surgery coordinator.
- Bring your medication list, insurance card, photo ID, and brace/crutches if you have them.
- Wear loose clothing; leave jewelry and valuables at home.
- A responsible adult must drive you home. You may **not** drive yourself.

Immediately After Surgery

- You will recover in the recovery area; most patients go home the same day.
- Your surgeon will discuss the procedure with you and your support person.
- Your care team will review wound care, restrictions, medications, follow-up, and warning signs before discharge.

Milestone	What to Expect After Surgery (General Timeline)
Weight-bearing	Without a tibial tubercle osteotomy (TTO): Full weight with crutches and a brace locked straight for 6 weeks. With a tibial tubercle osteotomy (TTO): No weight on leg for 4 weeks, then half weight; full weight after the 6-week x-rays.
Motion	Gentle bending out of the brace starts right away: 90° for 4 weeks, 120° by 6 weeks. The brace comes off at 6–8 weeks. If you have a TTO: bending and straightening may be limited initially. PT will teach you what you can and cannot do.
Daily life	Desk work often within 2 weeks. Deep squats and lunges are avoided for months. No driving while taking narcotic pain medication.
Running	No impact until 6 months, and then only after clearance.
Sports	Cutting and contact sports typically 8–12 months, after strength and hop testing.
► Please note: This is a general guide only. Detailed post-operative instructions will be provided on the day of surgery, and your restrictions and timeline may change based on the findings and procedures performed.	

Learn More

We **strongly recommend** reading these pages from the American Academy of Orthopaedic Surgeons (OrthoInfo) before your surgery:

- **Your condition and procedure: Articular Cartilage Restoration** — <https://orthoinfo.org/en/treatment/articular-cartilage-restoration/>

Video: You may find a video demonstrating an example (not the exact technique) of your surgery at

<https://patient.orthopedica.com/student/activity/2360856-knee-joint-cartilage-defects> (or browse <https://patient.orthopedica.com/student/catalog>).