

## Kneecap Cartilage Surgery

Kneecap, or patellar cartilage surgery, refers to a range of procedures that are used to reconstruct cartilage in isolated areas of the knee where damage has occurred. Patients who develop these defects may do so as the result of patellar instability, bony mal-alignment, or trauma. (This condition, referred to as post-traumatic arthritis, is different from that seen in patients with generalized arthritis throughout the knee.)

For patients with damage that is restricted to the cartilage in the patellofemoral joint, newer techniques allow restoration of cartilage in the defect, where it was once impossible to do so. Matrix autologous chondrocyte implantation (MACI) is a technique where cartilage cells are harvested minimally invasive, grown in the lab, and then re-implanted in a second surgery. Alternatives are the implantation of donor juvenile particulated cartilage (Denovo®). Patients with cartilage damage that also involves the bone may be candidates for Osteochondral Allograft Transplantation Surgery. To perform this procedure, the orthopedic surgeon removes damaged bone from the patient's kneecap and replaces it with donor bone and cartilage.

Patients undergoing patellofemoral cartilage surgery receive regional anesthesia — a spinal block that numbs the lower half of the body — and sedation. The entire surgery takes about one to two hours and patients return home the same day. Recovery after patellar cartilage surgery (or trochlear cartilage surgery) involves wearing a brace locked straight for six weeks while walking. The patient is permitted to weight bear during this time and bend the knee to sit and for some specific exercises. There is a very low rate of complications, which includes stiffness, infection, or blood clots. Often this surgery is combined with bone realignment surgery or patellar stabilizing surgery.

Isolated areas of patellar cartilage damage can occur in individuals who are still quite young, and patellar cartilage surgery is generally considered for patients ranging from age 12 to 50. In patients over 50, patellofemoral joint replacement maybe a better option.