

# OSTEOCHONDRAL ALLOGRAFT TRANSPLANTATION FOR THE KNEE: POST-OPERATIVE REHABILITATION

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## ABSTRACT

Articular cartilage injuries of the knee are common among young, active patients presenting with knee pain, swelling, and/or mechanical symptoms. These injuries have limited healing potential due to the avascular nature of hyaline cartilage. While several treatment options exist, osteochondral allograft (OCA) transplantation for the knee has been used successfully in primary management of large chondral or osteochondral defects and salvage of previously failed cartilage repair. OCA transplantation potentially yields a natural, matching contour of the native recipient surface anatomy and transplants mature, viable hyaline cartilage to the affected defect. Following OCA transplantation, strict compliance with a rehabilitation protocol is essential to enable optimal recovery. The outlined rehabilitation protocol is informed by the existing literature and incorporates current rehabilitation principles, the science of osteochondral incorporation, and adaptations based on an individual's readiness to progress through subsequent phases. The purpose of this clinical commentary is to discuss the diagnosis, surgical management, and post-operative rehabilitation following OCA transplantation and to assist the physical therapist in returning athletes to full sports participation.

**Key Words:** cartilage, knee, osteochondral allograft, rehabilitation

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