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| <p>The use of allografts in sports medicine is becoming increasingly popular, and, therefore, this issue of <i>Clinics in Sports Medicine</i> is dedicated to the use of allografts in sports medicine. The majority of indications are related</p> | |

to the use of soft tissue grafts for ligament reconstruction, osteochondral (OC) allografts for articular surface reconstruction, and meniscal allografts for meniscal transplantation. There is an increasing amount of science and literature dealing with healing and outcomes, but many questions still remain. There are a number of issues, controversies, and lack of long-term outcomes to make definitive statements on what is really known about allograft use in sports medicine.

Primary ACL Reconstruction Using Allograft Tissue

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J.C. Clark, Daniel E. Rueff, Peter A. Indelicato, and Michael Moser

While bone-patellar tendon-bone (BPTB) autograft continues to be the “gold standard” and most popular graft choice for primary anterior cruciate ligament (ACL) reconstructions, the use of allograft tissues in ACL reconstruction has steadily increased over the last 2 decades. Advantages of allograft include a lack of donor-site morbidity, unlimited available sizes, shorter operative times, availability of larger grafts, smaller incisions, improved cosmesis, lower incidence of postoperative arthrofibrosis, faster immediate postoperative recovery, and less postoperative pain. Disadvantages include the potential for disease transmission and prolonged graft healing. Presented in this article are 2 techniques used at the authors’ institution for primary ACL reconstruction with allograft. With the proper indications, knowledge of graft preparation and handling, and technique, allograft tissues in ACL reconstructions can provide the surgeon with clinical results equal to those of autograft reconstructions.

Posterior Cruciate Ligament Reconstruction: Achilles Tendon Allograft, Double Bundle

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Andrew D. Heinzelmann and Gene R. Barrett

Allograft usage for cruciate ligament reconstruction has gained in popularity. Many techniques are described for posterior cruciate reconstruction with both autograft and allograft tendons. Achilles tendon allograft is a versatile and effective graft that can be used for a transtibial, double femoral bundle posterior cruciate reconstruction.

Meniscal Allograft Transplantation

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Jonathan D. Packer and Scott A. Rodeo

Meniscal allograft transplantation has emerged as a treatment option for selected meniscus-deficient patients to restore normal meniscal function and forestall progressive joint degeneration. Contraindications include diffuse subchondral bone exposure, axial malalignment, and instability. However, a knee may be rendered suitable for meniscus transplantation if combined with chondral resurfacing, osteotomy, and/or ligament reconstruction. Although numerous studies have reported improved clinical outcomes with meniscal allograft transplantation, high-quality studies with control groups are lacking in the literature. This article describes the current indications, graft types and sizing, surgical techniques, and a review of the literature with a focus on the role of concomitant procedures.

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| <p>The use of osteochondral allografts to treat focal osteochondral lesions continues to gain popularity, supported by long-term results. Clinicians must be knowledgeable concerning the possible risks of disease transmission, graft rejection, infection, and graft failure to advise the patient and obtain an informed consent. With advancing scientific and clinical research, future operative indications will likely continue to expand. A significant amount of literature regarding storage methods has recently been published; it is hoped that continued research will lead to techniques for prolonged graft storage to prevent availability concerns.</p> | |
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| <p>Revision anterior cruciate ligament (ACL) reconstruction presents many technical considerations not seen in primary ACL reconstruction. A variety of allograft options are available for use during revision ACL reconstruction, including bone-patella tendon-bone, calcaneus-Achilles tendon, and all soft-tissue grafts. Anatomic double-bundle ACL technique improves knee kinematics and provides the rotatory stability necessary to return to ACL-dependent activities.</p> | |
| Future of Allografts in Sports Medicine | 327 |
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| <p>Allografts play a prominent role in sports medicine, and their usage has increased dramatically over the past few decades, but the role of allograft in the future of sports medicine largely depends on several factors: (1) the ability of the tissue banking industry to convince both surgeons and the general population that tissue procurement is safe and nearly disease-free, (2) the ability to sterilize tissue with minimal compromise to tissue integrity, (3) successful clinical outcomes with allograft, and (4) the advent of artificial scaffolds and ligaments that function as well.</p> | |
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