

## Anterior Cruciate Ligament Reconstruction Graft Options

Gustavo Vinagre, MD<sup>1</sup>, João Saraiva, MD<sup>2</sup>

<sup>1</sup>Clínica Universidad de Navarra, Pamplona, Navarra, Spain

<sup>2</sup>Complejo Hospitalario Universitario de Pontevedra, Pontevedra, Spain

**Introduction:** The Anterior Cruciate Ligament (ACL) tear is one of the most feared injuries since it can be crucial in the athlete's career.

The ACL reconstruction is one of the most frequent surgical procedures in Sports and the goal is to restore knee stability and avoid further injuries on the meniscus and cartilage, representing a constant topic of debate in Sports Traumatology.

There are different graft options for ACL reconstruction that have been described over the years, addressed by different studies with controversy and different outcomes.

The decision of the ideal graft for an ACL reconstruction is very complex, but should be consensual among all those involved in the injury process, and should be taken according to patient's anatomy, physical demand and intrinsic graft specifications, that are key to know and understand.

**Objectives:** Review and summarize the different graft options available for ACL reconstruction in order to make an optimal and individualized choice for each athlete to maximize the return to play and back to Sports at pre-injury levels.

**Methods:** A literature review was performed on PubMed / Medline electronic databases with the words "ACL graft" by relevance. The articles with graft comparisons specifications were selected.

**Results:** The results of our review were summarized with the advantages and disadvantages of the following grafts: Bone-Tendon-Bone (BTB) autograft; hamstrings autograft, quadriceps autograft and allografts.

**Conclusion:** Taking into account the scientific knowledge available and despite the differences in each graft, the choice of the ideal graft that should be used in the ACL reconstruction should be individualized for each athlete, according to intrinsic graft specifications and extrinsic particularities of each sport and athlete.

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