

# ACL Graft Options

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## Background:

The Anterior Cruciate Ligament (ACL) is a ligament that attaches the two bones of your knee together. When it is torn, the knee can feel unstable.

In general, the ACL cannot be “repaired”, instead, it is **reconstructed** using a transferred tendon. The tendon that is used is either from the patient (autograft) or it is taken from a cadaver (allograft).



## Graft Options:

With an autograft, either part of the **patella tendon** or **hamstring tendons** are taken and used. There are different advantages and disadvantages with each graft choice. However, minimal differences have been shown between muscle strength, function, return to sport or patient satisfaction between each choice.

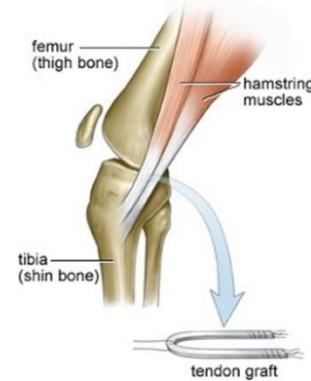
Graft choice should be individualized for each patient and should be based on age, activity level of the patient, and the nature of the injury.



## Autograft vs. Allograft

Graft Type:	Advantages	Disadvantages
<b>Autograft</b>	<ol style="list-style-type: none"> <li>1. Patient's own tissue</li> <li>2. More predictable incorporation</li> <li>3. No risk of disease transmission</li> <li>4. Lower risk of failure</li> </ol>	<ol style="list-style-type: none"> <li>1. Donor site morbidity</li> <li>2. More painful &amp; slower early recovery</li> </ol>
<b>Allograft</b>	<ol style="list-style-type: none"> <li>1. No donor site morbidity</li> <li>2. Smaller incisions</li> <li>3. Shorter surgery</li> <li>4. Less painful, quicker early recovery</li> </ol>	<ol style="list-style-type: none"> <li>1. Higher risk of failure</li> <li>2. Theoretical risk of disease transmission</li> </ol>

## Hamstring Autograft vs. Patella Tendon Autograft

Graft type:	Advantages	Disadvantages	Location
Hamstring Autograft	<ol style="list-style-type: none"> <li>1. Smaller incision</li> <li>2. Less painful, early recovery</li> </ol>	<ol style="list-style-type: none"> <li>1. Hamstring weakness</li> <li>2. May require allograft augmentation</li> <li>3. Higher failure in young, female athletes w/ significant joint laxity</li> </ol>	
Patella Tendon Autograft	<ol style="list-style-type: none"> <li>1. Bone to Bone Healing</li> <li>2. Longest history of use</li> <li>3. Lowest failure rates</li> </ol>	<ol style="list-style-type: none"> <li>1. Greater incidence pain in front of knee</li> <li>2. Increased incidence of osteoarthritis</li> <li>3. Larger Incision</li> <li>4. Longer, more invasive surgery</li> <li>5. Quadriceps weakness</li> </ol>	