

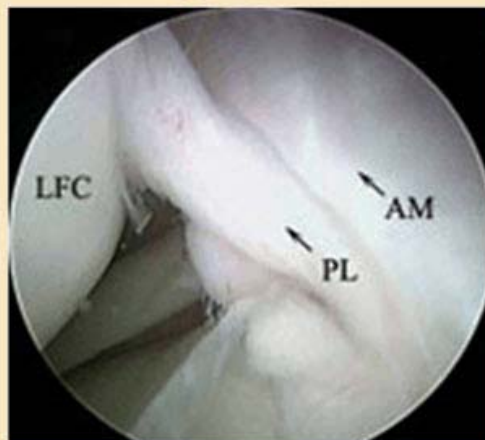


Patient Resources

Double Bundle ACL Reconstruction

- Consists of individual fibre bundles, named for their insertion points on the tibial footprint.
- The larger anteromedial (AM) bundle inserts anteromedially on the tibial side and originates more proximally on the femoral side than the posterolateral (PL) bundle, which is posterolateral relative to AM bundle.

Anatomy of ACL



- The ACL is comprised of two separate functional bundles of fascicles, not a single cord.
- Traditional ACL reconstruction treats the ligament as though it were a single construct, replicating one of the functional bundles but not the other.
- In traditional (single-bundle) ACL reconstruction, a graft is used to basically replicate the positioning of the AM bundle.
- The double-bundle technique uses two separate grafts to replicate the positioning of both the AM and the PL bundles.
- Because the AM bundle makes a greater contribution to anteroposterior knee stability, while the PL bundle makes a greater contribution to rotational stability, a double-bundle technique may be better able to restore normal knee kinematics.

FAQs

- What does double bundle ACL reconstruction offer me?
 - It provides a more anatomical reconstruction of your torn ACL compared to traditional single bundle technique.
 - This is borne out by many studies.
- What does the 2nd bundle do?
 - The posterolateral bundle or PL bundle offers better rotational stability and this may translate to better functional outcome in the sportsmen

Surgical Technique



Publications by Dr Chang on Double Bundle ACL Reconstructions

- Anatomic Double-Bundle ACL reconstruction: a literature review.
C Crawford, J Nyland, S Landes, R Jackson, HC Chang, A Nawab, DN Caborn
Knee Surg Sports Traumatol Arthrosc. 2007 Aug;15(8):946-64; discussion 945.
- Anatomical Double-Bundle Anterior Cruciate Ligament Reconstruction: Maximizing Benefits While Minimizing Complexity: A Balanced Potential Approach.
J Nyland, S Landes, C Crawford, HC Chang, A Nawab, DN Caborn
Techniques in Knee Surgery. 6(3):191-203, September 2007.
- Single femoral socket double-bundle anterior cruciate ligament reconstruction using tibialis anterior tendon: description of a new technique.
DNM Caborn, HC Chang
Arthroscopy Oct 2005, 21(10):1273.

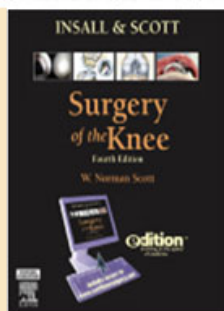
Surgical Technique

Technical Note

Single Femoral Socket Double-Bundle Anterior Cruciate Ligament Reconstruction Using Tibialis Anterior Tendon: Description of a New Technique

David N. M. Caborn, M.D., and Haw Chong Chang, FRCSEd(Orth)

Arthroscopy: The Journal of Arthroscopic and Related Surgery, Vol 21, No 10 (October), 2005; pp 1273.e1-1273.e8 1273.e1



**Chapter 41 Allograft Anterior Cruciate Ligament Reconstruction
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