

Research Identifies Technique that Improves ACL Surgery

Surgeons from Hospital for Special Surgery have identified a drilling technique that improves the outcome of surgery to reconstruct the anterior cruciate ligament (ACL). The news was presented during the annual meeting of the American Orthopedic Society for Sports Medicine, in July.

In recent years, an improved understanding of the anatomy of the ACL has allowed surgeons to refine techniques to reconstruct it. Investigators at Hospital for Special Surgery (HSS) set out to compare the outcomes of surgeries using two common techniques. “The goal in repairing the ACL is to recreate the normal anatomy, and there are a variety of different techniques to prepare tunnels for ACL reconstruction that have evolved over time,”

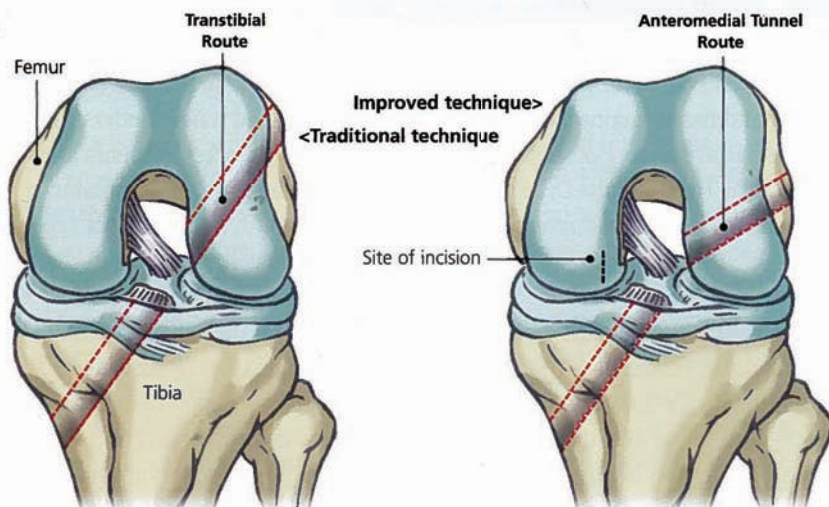
said Dr. Asheesh Bedi, a fellow in sports medicine and shoulder surgery at Hospital for Special Surgery who was involved with the study. “The focus of the study was to compare two very common techniques in terms of their ability to reproduce the native ligament anatomy and restore the stability of the knee after reconstruction in a cadaveric model.”

The investigators used 10 matched cadaveric knees to directly compare the two techniques. The



Dr. Answorth A. Allen (left) is one of several HSS physicians involved in identifying a new technique to improve ACL surgical outcomes.

Improved Knee Stability



Surgeons at HSS have found that drilling through the anteromedial portal (right), rather than the tibial portal (left), results in improved stability of the knee after ACL reconstruction.

researchers found that the first technique could not reproduce the natural position of the ACL, whereas the second technique could better restore the native anatomy.

“This study clearly demonstrates that restoring the anatomy of the ACL and the stability of the knee is far superior when the femoral socket is reamed through the anteromedial portal rather than the tibial tunnel, as has been traditionally done by most surgeons,” said David W. Altchek, MD, attending orthopedic surgeon and co-chief of the Sports Medicine and Shoulder Service at HSS. “HSS is an international leader in this innovative solution toward

further improving patient outcomes in ACL surgery.”

According to Dr. Bedi, the work has translated into modified techniques in the operating room at HSS, where more than 800 ACL surgeries are performed each year. Tears of the ACL are quite common, with between 70,000 and 80,000 reported each year in the United States.

Others involved in the study are Volker Musahl, MD, Volker Steuber, MD, Daniel Kendoff, MD, Answorth A. Allen, MD, and Andrew D. Pearle, MD, all with the Sports Medicine and Shoulder Service at HSS. ●