



Brad Bernardini, MD

Dr. Brad Bernardini is the first surgeon in the region to perform both the All-Inside, and Double Bundle ACL reconstruction techniques. He has also been honored as an Associate Masters Instructor of knee surgery by the Arthroscopy Association of North America, where he instructs Orthopaedic Surgeons from across the nation in advanced surgical techniques.

Dr. Bernardini is in his 4th year of practice and has been published in his field and honored for his academic achievement. He is an ex-collegiate athlete and serves as a member of the United States Ski and Snowboard Team Physician Pool Program, as well as the head team physician for Delsea Regional High School. To review a copy of his latest publication in the American Journal of Sports Medicine on Knee Joint Instability, please visit our website at www.southjerseycenter.com.

Advances in ACL Reconstruction

ACL reconstruction has evolved tremendously over the last several years. This evolution has shown us that we have not yet achieved the optimal solution to the ACL deficient knee.

While the indication is generally accepted that an ACL tear in a young to middle aged person should be treated with surgical reconstruction, the specific techniques and materials that are used have undergone some dramatic changes. Advanced techniques now allow the procedure to be done in skeletally immature athletes while sparing damage to the growth plate. Greater tissue testing and donor safety programs have allowed cadaver grafts (allografts) to be utilized to a greater degree and with much improved safety parameters. Additionally, newer technologies and improved surgical techniques have allowed the development of new concepts for reconstruction including the “All-Inside” or “All-Arthroscopic ACL reconstruction, as well as the Double Bundle ACL reconstruction which uses 2 grafts to more closely mimic the native ACL function.

Skeletally Immature Athletes have posed unique challenges in the past for Sports Medicine surgeons. Many times these patients would have to wait for an ACL reconstruction procedure until after their growth plates have fully closed. New technologies and research looking at growth plate injury have

shown that with careful handling and advanced techniques, ACL reconstruction is possible without damaging the growth rate or symmetry of the femur and tibia. Central tunnels and soft tissue grafts are mandatory in this age group, and have been shown to produce a stable knee with reproducible results for long term function. Furthermore it allows children to return to a normal activity level without the concern for further damage to the knee as a result of ACL deficiency, such as meniscal tears and cartilage damage.

Allograft Utilization has also gained increased acceptance as a result of improved testing and safety parameters used by the American Association of Tissue Banks, as well as the advances in tissue processing prior to implantation. Numerous studies have shown that allograft tissue used for ACL reconstruction has comparable clinical and patient satisfaction results, while sparing the additional surgical risk, complications, and morbidity caused by harvest of a same patient (autograft) graft.

New Surgical Procedures are perhaps the most exciting of the recent advancements in ACL surgery. Use of soft tissue grafts, along with minimally invasive techniques, have resulted in the “All-Inside” ACL reconstruction which can be performed entirely through arthroscopic portals. This results in less post-op pain, faster recovery, and early physical therapy for a more accelerated early post op rehabilitation. Further advances have shown that the ACL has 2 functional “bundles” within the same ligament. Accordingly, a double bundle ACL reconstruction using separate grafts and anchoring sites has been developed. This reconstruction has been shown to more closely mimic the functional capabilities of the native ACL. These procedures are cutting edge and are currently being performed at very few centers around the country.



SPORTS MEDICINE COMES IN ALL SHAPES AND SIZES

All athletes share two things – a love of being active and the potential for injuries.

At the South Jersey Center for Orthopedics and Sports Medicine, we recognize that all athletes – young and old, male and female – deserve the same excellent treatment as the “pros.”

By combining the latest in minimally invasive surgical techniques and unique in-house physical therapy services, our team of medical “pros” will help you conquer your pain and get back in the game as quickly as possible.



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