

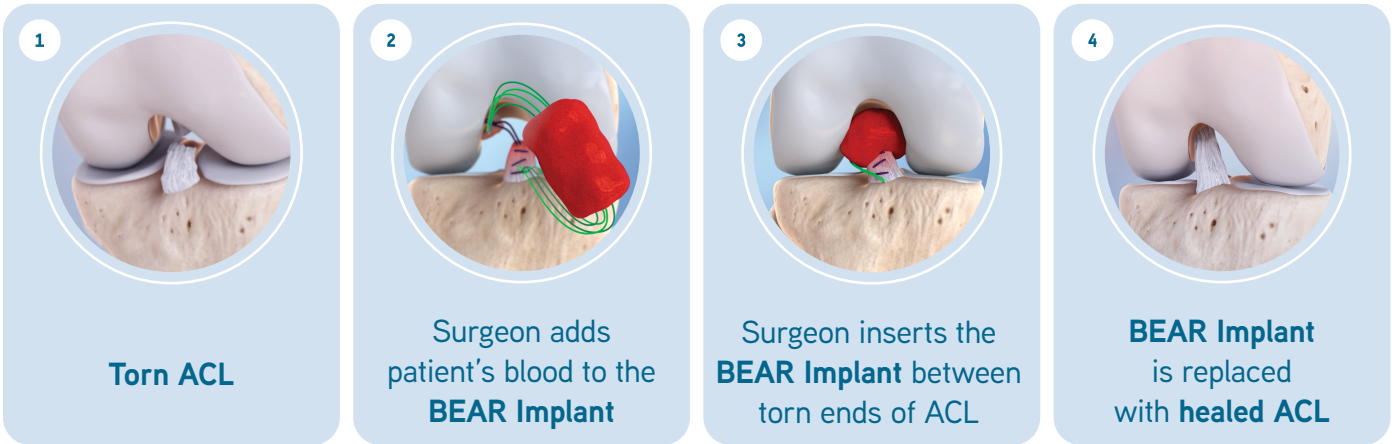
What are the options for ACL surgery in children?

ACL tears have historically been treated with a procedure called ACL reconstruction (ACLR), where the surgeon replaces the torn ACL with a graft from another part of the leg. In children, the IT band is a common graft choice. The BEAR Implant is an innovative treatment that works with your child's body to restore their own natural ACL, without the need for grafts. The chart below shows some similarities and differences between the two procedures.

BEAR IMPLANT	ACLR
Restores the natural ACL, preserving its original shape and size ^{1,2,3}	Uses graft tissue to replace ACL
No graft needed	Graft harvesting required
Less invasive procedure	More invasive surgical procedure
Enables knee joint to function more naturally while reducing the risk of post-traumatic osteoarthritis ^{1,2,3}	Long term risk of developing osteoarthritis ^{4,5}
Return to activity around 9 months	

How does the BEAR Implant work?

Your surgeon uses a simple procedure to repair the torn ACL and insert the BEAR Implant, which gets hydrated with the patient's own blood. This creates an optimal healing environment that protects against the harsh synovial fluid, allowing a blood clot to form and the rest of the natural healing process to take place. Over time, the BEAR Implant integrates with your child's own tissue and continues to strengthen, ensuring a robust and durable recovery.



What are the long-term benefits of the BEAR Implant?

The BEAR Implant restores your child's natural ACL, preserving the original knee joint mechanics and anatomy and promoting long term knee joint function^{1,2,3}. Further, patients who receive the BEAR Implant are six times less likely to develop post-traumatic osteoarthritis than those who get a standard ACL reconstruction.

Is my child a candidate for the BEAR Implant?

Your child is a candidate for the BEAR Implant if they

- Are at least 2 years old
- Have a complete or partial ACL tear, as confirmed by MRI
- Have sufficient tissue quality as verified by their surgeon

Before performing the BEAR Implant procedure, your child's surgeon will verify the tissue quality is sufficient. If this is not the case, the surgeon may opt for a reconstruction.

How is the BEAR procedure in children different than adults?

The overall procedure is very similar regardless of patient age. If your child is skeletally immature, their surgeon will use a growth plate sparing technique to avoid disrupting the natural growth process.

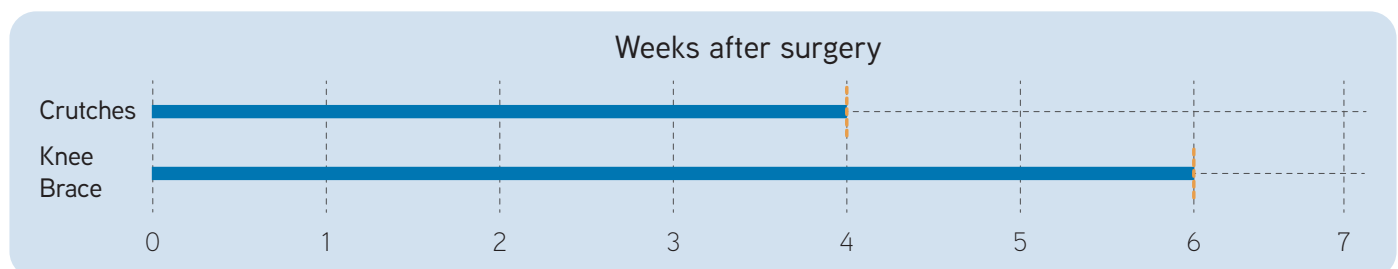
What data do you have to support the use of BEAR in children?

Data from two ongoing clinical studies confirms that young children (<14) have comparable safety and efficacy outcomes to older patients.⁶

How long will my child have to wear a knee brace? And crutches?

Please follow the guidance of your child's surgeon and physical therapist regarding brace and crutch use.

- Patients typically wear a knee brace for 6 weeks after surgery, at which point they may transition to a functional brace.
- Most patients are weaned off crutches for walking beginning 4 weeks after surgery.



What does the rehabilitation process look like?

After surgery, your child will work closely with a physical therapist to move through the BEAR Rehabilitation Protocol, which has been carefully designed to help protect the healing ACL while getting your child back to normal activity as soon as possible. The earlier phases will be more involved, with several weekly visits to the physical therapist.

Where can I find a BEAR rehabilitation physical therapist?

Our [PT locator map](#) can be used to search for physical therapists in your area who've been trained in the BEAR Implant rehabilitation.

Is the BEAR rehabilitation process different than ACL reconstruction?

The overall rehabilitation timeline is the same for the two procedures, with a return to activity of around 9 months. BEAR rehabilitation is more conservative in the first 2-3 months to protect the healing ACL tissue.

How can I set my child up for the best chance of success after the BEAR procedure?

The best thing you can do is to ensure that your child is closely following the BEAR Rehabilitation Protocol outlined by their physical therapist. While many patients feel better shortly after the procedure and want to return to activity, it is critical that your child wait at least 9 months to allow for proper ACL healing. Going slow at the beginning will set your child up for a successful return to sport and a lifetime full of activity.

What should I do if my child is not progressing as intended?

While the BEAR Rehabilitation Protocol is intended as a guideline, each patient's progression is unique. Please consult your child's surgeon or physical therapist if you feel they are not progressing as intended.

1. Murray MM, Fleming BC, Badger GJ, et al. Bridge-Enhanced Anterior Cruciate Ligament Repair Is Not Inferior to Autograft Anterior Cruciate Ligament Reconstruction at 2 Years: Results of a Prospective Randomized Clinical Trial. *The American Journal of Sports Medicine*. 2020;48(6):1305-1315. doi:10.1177/0363546520913532
2. Murray MM, Flutie BM, Kalish LA, et al. The Bridge-Enhanced Anterior Cruciate Ligament Repair (BEAR) Procedure: An Early Feasibility Cohort Study. *Orthop J Sports Med*. 2016;4(11). doi:10.1177/2325967116672176
3. Compared to ACL Reconstruction at 6-years post op. Based on pooled data from BEAR I and BEAR II studies.
4. Grassi A, Pizza N, Al-zu'bi BBH, Fabbro GD, Lucidi GA, Zaffagnini S. Clinical Outcomes and Osteoarthritis at Very Long-term Follow-up After ACL Reconstruction: A Systematic Review and Meta-analysis. *Orthop J Sports Med*. 2022;10(1). doi:10.1177/23259671211062238
5. Bodkin, S.G., Werner, B.C., Slater, L.V. et al. Post-traumatic osteoarthritis diagnosed within 5 years following ACL reconstruction. *Knee Surg Sports Traumatol Arthrosc* 28, 790–796 (2020). <https://doi.org/10.1007/s00167-019-05461-y>
6. Performance testing combined from BRIDGE registry and BEAR III clinical trials submitted to FDA