If you have any further questions about Navio or partial knee replacement surgery, please contact:

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BLUE BELT TECHNOLOGIES, INC
Reshaping Mobility™

 600080 Rev B

What to expect from your Navio robotics-assisted partial knee replacement

BLUE BELT TECHNOLOGIES, INC
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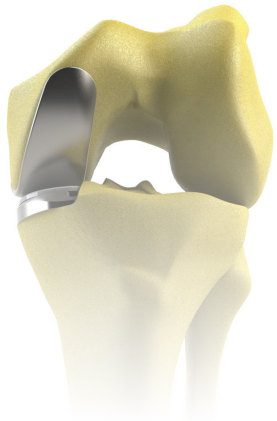
Your Navio® Guide

Partial Knee Replacement

Partial knee replacement is an alternative to total knee replacement for patients indicated with early to mid-stage osteoarthritis that is generally limited to one compartment of the knee. The procedure removes and replaces the damaged portion of the knee with an implant, sparing the cruciate ligaments that are vital for knee stability, and preserving healthy bone and cartilage. In contrast to those who undergo total knee replacement, partial knee replacement candidates may benefit from:

+ Less pain[1]
+ Quicker recovery[2]
+ Lower risk of complications[2]
+ Shorter hospital stay[3]



Using traditional sugical methods, cutting blocks are placed on the thigh bone (femur) and shin bone (tibia) to help direct a surgical saw in removing the diseased bone and cartilage. This method has been considered technically challenging, as accurately placing these blocks can be difficult. In recent years, advanced surgical techniques using robotic assistance have been developed to provide a higher level of precision and consistency.[4]

Navio Robotics-Assisted Partial Knee Replacement

The Navio® Surgical System provides robotic assistance through an advanced computer program that relays precise information about your knee to the robotic tool to aid the surgeon during the procedure. By collecting patient-specific information, boundaries are established for the robotic handpiece so the surgeon can remove the damaged surfaces of your knee, balance your joint, and position the implant with great precision.

Navio® Surgical System

Your Navio® Guide

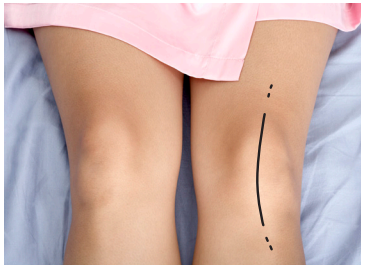
Preparation

Follow your physician's instructions for how to prepare leading up to surgery. Some surgeons may request thorough medical and dental evaluations. Remember to let your doctor know if you are taking any medications.

Consider how the surgery and recovery process will affect your daily activities. Move items and furniture in your home so they are easier to access while your mobility is limited. Remove clutter and obstacles that could be tripping hazards. Have a plan; preparing meals ahead of time and arranging visitors to help with everyday chores will make your recovery smoother.

What to Expect in Surgery

The surgeon will typically make a 4" - 6" incision along the front of your knee, just to the side of the knee cap, to access the damaged area and inspect the knee. Special markers (arrays) are secured to both the thigh bone (femur) and shin bone (tibia) with four, 4 mm pins that are placed through small incisions in the skin. The arrays are crucial to the precision of the system as they provide a constant reference point for the computer navigation as the surgeon collects your anatomical data and prepares the joint surfaces.



The anatomical data collected is used to generate a 3-dimensional model of your knee, which the surgeon uses to precisely plan your partial knee replacement. With Navio, proper implant placement and knee balance, important to a successful surgery, are first achieved virtually.

When the surgical plan is set, Navio's robotic handpiece assists the surgeon to accurately resurface the joint as he or she guides the instrument over the femur and tibia. After the damaged bone and cartilage have been removed and the implants are in place, the incision is thoroughly cleaned and closed to complete the procedure.

Navio® Robotic Handpiece

Your Navio® Guide

Post-Operative

Immediately after surgery you will be transferred to the Recovery Room. In addition to the incision along your knee, there will be two small incisions on both your thigh and lower leg where the tracking arrays pins were placed. Ice packs and analgesics may be used to reduce swelling and manage pain.

Each patient's post-operative care will vary. Early movement of your operative knee with assistance is encouraged. Patients are typically allowed to walk with the assistance of a cane, crutches, or walker shortly after surgery. A physical therapist will prescribe exercises to help restore knee strength and function, and increase range of motion. It is common to for your knee to experience swelling, stiffness, and tightness. Follow up visits may be scheduled to check up on your condition and progress as you recover.

Your physician will instruct you when it's appropriate to return to various activities. How quickly you recover depends on factors such as knee pain, flexibility, strength, and balance.

Complications

As with any surgical procedure there are risks involved with partial knee replacement, including:

- **Blood clots.** Your physician may prescribe medication to help prevent blood clots.
- **Infection.** Antibiotics will be given before the surgery and continued afterward to help prevent infection.
- **Injury to nerves or vessels.** While rare, nerve and blood vessel damage may occur during the procedure.[5]
- **Other risks.** Individual patient risks can be discussed with your surgeon.

Navio Contraindications:

The Navio system is not intended to be used on children, pregnant women, or other patients for whom partial knee replacement is contraindicated.

Notes

1. Hall et al., "Unicompartmental Knee Arthroplasty (Alias Uni-Knee): An Overview With Nursing Implications," Orthopaedic Nursing, 2004; 23(3): 163-171.
2. Brown, NM, et al., "Total Knee Arthroplasty Has Higher Postoperative Morbidity Than Unicompartmental Knee Arthroplasty: A Multicenter Analysis," The Journal of Arthroplasty, 2012.
3. Bolognesi M, et al. Unicompartmental Knee Arthroplasty and Total Knee Arthroplasty Among Medicare Beneficiaries, 2000 to 2009. J Bone Joint Surg Am. 2013 Nov;95:e174(1-9).
4. Lonner, et al. "High Degree of Accuracy of a Novel Image-free Handheld Robot for Unicondylar Knee Arthroplasty in a Cadaveric Study." Clinical Orthopaedics and Related Research. Advanced online publication. DOI 10.1007/s11999-014-3764-x
5. American Association of Orthopaedic Surgeons (2014). AAOS.org.