

High Tibial Osteotomy (HTO) — Pre-Operative Patient Guide

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Bow-Legged (Varus) Alignment with Inner Knee Overload or Arthritis

Your Condition & Procedure

The condition

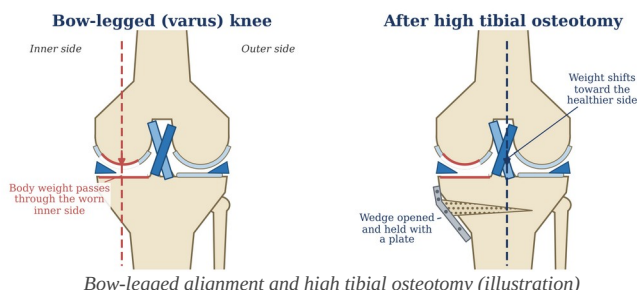
When the knee is **bow-legged (varus)**, body weight passes mostly through its inner side. Over time this overloads and wears the cartilage there (**medial arthritis**) or stresses a meniscus, cartilage, or ligament repair, causing pain along the inner knee with standing and activity.

The surgery

Through an incision below the knee, a precise cut is made in the upper shin bone and a small wedge is opened (or closed) to straighten the leg, held with a plate and screws. The cut is typically planned using custom printed guides and hardware specific to your anatomy, and shifts weight toward the healthier outer side. Meniscus, cartilage, or ligament procedures may be done at the same time. The final plan is determined during surgery.

Risks & benefits

Benefits: Most patients have less pain and stay active, often delaying knee replacement. **Risks** are uncommon and include infection, blood clots, the bone healing slowly or not healing, loss of correction, hardware irritation that may require removal, fracture, injury to nearby structures (such as nerves, blood vessels, or cartilage), stiffness, persistent pain, and the need for further surgery. These will be reviewed with you in detail before surgery.



Before Surgery

- **Medications:** We will tell you what to stop and when (e.g., blood thinners, anti-inflammatories, some supplements, weight-loss injections).
- **Fasting:** Follow the instructions from your surgery coordinator/facility. In general, you should have nothing to eat or drink starting at midnight the night before surgery.
- **Nicotine:** Stop all nicotine products—they slow healing.
- **Equipment:** A knee brace and crutches are typically arranged beforehand. Practice with crutches.
- **Physical therapy:** Schedule your first visit for within about a week after surgery.
- **Home:** Plan for a helper and remove trip hazards; a shower chair can help.
- **Medical history:** Let us know if you or anyone in your family has a history of blood clot disorders or a malignant hyperthermia reaction to anesthesia.
- **Health:** Call us if you develop a fever, illness, or skin problem near the knee.

Day of Surgery

- If instructed, take blood pressure/heart medications with a small sip of water.
- Arrive at the time given by your surgery coordinator.
- Bring your medication list, insurance card, photo ID, and brace/crutches if you have them.
- Wear loose clothing; leave jewelry and valuables at home.
- A responsible adult must drive you home. You may **not** drive yourself.

Immediately After Surgery

- You will recover in the recovery area; many patients go home the same day, and some stay overnight.
- Your surgeon will discuss the procedure with you and your support person.
- Your care team will review wound care, restrictions, medications, follow-up, and warning signs before discharge.

Milestone	What to Expect After Surgery (General Timeline)
Weight-bearing	You will use crutches after surgery, adding weight in steps: touch-down for 2 weeks, then half weight, advancing to full weight through your leg after the 6-week x-rays; normal walking by ~8 weeks.
Motion	No motion limits; bending to 120° by 6 weeks. A brace is used for walking until leg control returns.
Daily life	Desk work often within 2 weeks. No driving while taking narcotic pain medication.
Running	Only after x-rays show the bone has healed, typically 4–6 months.
Activity	Full release typically 6–9 months. Impact sports depend on strength and cartilage health.
► Please note: This is a general guide only. Detailed post-operative instructions will be provided on the day of surgery, and your restrictions and timeline may change based on the findings and procedures performed.	

Learn More

We **strongly recommend** reading these pages from the American Academy of Orthopaedic Surgeons (OrthoInfo) before your surgery:

- **Your condition: Arthritis of the Knee** — <https://orthoinfo.org/en/diseases--conditions/arthritis-of-the-knee/>
- **Your procedure: Osteotomy of the Knee** — <https://orthoinfo.org/en/treatment/osteotomy-of-the-knee/>

Video: You may find a video demonstrating an example (not the exact technique) of your surgery at https://www.youtube.com/watch?v=-COvaBpt_20