

About Surgery to Rotate Your Child's Lower Leg (Distal Tibial Rotation Osteotomy)

WHY IS MY CHILD'S LOWER LEG ALIGNMENT IMPORTANT?

A poorly positioned lower leg can make walking, moving, standing or sitting uncomfortable for your child. Your child's lower legs are rotated. The way the leg bones are turned might cause your child to turn their feet inward or outward. This rotation may lead to tripping, falls, poor balance and/or difficulty wearing braces or shoes. Their bone position may even cause pain or discomfort.

WHY SHOULD MY CHILD HAVE SURGERY?

- To improve walking, standing or moving
- To improve posture
- To reduce pain
- To improve alignment

ABOUT DISTAL TIBIAL ROTATION OSTEOTOMY SURGERY

During the operation, the surgeon cuts the shin bone (tibia) and rotates the bone to the best possible position. Plates or screws are placed to hold the tibia bone in the new position.

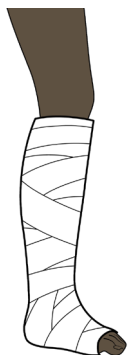
After the surgery, a cast is placed on your child's foot and lower leg to protect the surgery site and allow the leg to heal.

Most children who have surgery for distal tibial rotation go home on the day of surgery.

RECOVERING AT HOME

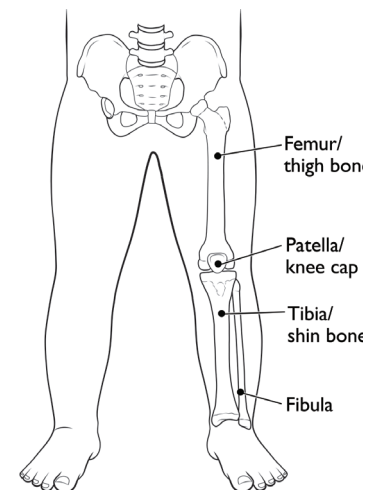
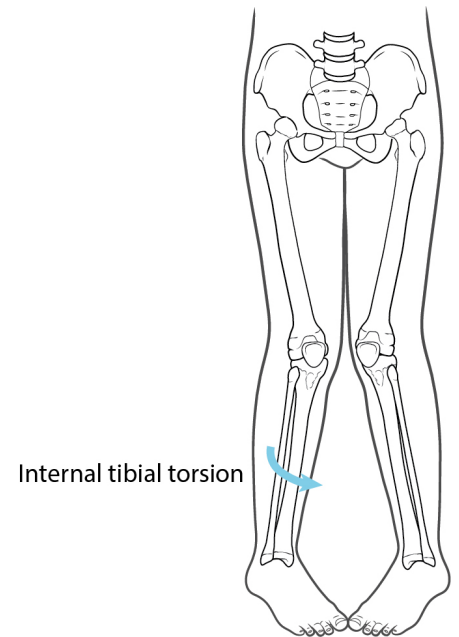
After surgery, your child will not be able to put weight on their feet for 4 to 6 weeks. Before surgery your care team will prepare you and your child for daily activities while your child cannot put weight on their feet. This plan includes instructions for bathing, dressing and moving around safely after surgery with a cast.

Follow your surgeon's instructions for limiting your child's activity while they heal. It is common to have leg pain or be uncomfortable in the first few weeks after surgery. Your child may also have spasms or jerky movements as their leg heals.



FOLLOW-UP APPOINTMENTS

Your child will remain in a cast for about 4 to 6 weeks. Your surgeon will determine when your child is ready to have the cast removed and begin to bear weight. It is important that you attend all scheduled appointments after surgery.



Bones of the Leg

Lower leg rotation surgery can help your child with comfort and mobility.

Please contact your care team if you have any questions or concerns after surgery.

Guidance for Your Therapist and Care Providers: Post-Op

DISTAL TIBIAL ROTATION OSTEOTOMY

Immediate Post-Op through end of Week 6

RESTRICTIONS AND IMMOBILIZATION

- Short leg cast, non-weight bearing for 6 weeks
- Avoid activities that would cause cast to become wet or submerged in water

THERAPY FOCUS (Instruction provided by inpatient PT prior to hospital discharge – No outpatient PT for 2 weeks after surgery)

- Safe mobility with assistive device and compliance with non-weight bearing status (calcaneal slide osteotomy: WBAT)
- Focus on strengthening all LE muscles except ankle dorsiflexors, plantarflexors, and foot intrinsics on the surgical side
- Home exercise program provided by PT for LE strengthening (except muscles noted above)

CRITERIA TO PROGRESS

- Uneventful bone healing of the surgical site(s)
- Clearance from surgical team to initiate outpatient physical therapy after 6-week follow-up appointment with Ortho
- Proper fit of solid AFO (ankle foot orthotic) once cast is discontinued

Week 6 to Completion of PT Care

RESTRICTIONS AND IMMOBILIZATION

- Weight bearing as tolerated with AFO until cleared by surgical team
- Can remove AFO for PT non-weight bearing exercises at 6 weeks
- If doing well, can initiate WB without AFO in PT and for household distances at 3 months
- Continue AFO for long distances for 4-6 months
- Ok to hinge AFOs at 5 months
- Continue AFO at night for 12 months
- Continue knee immobilizers at night for 6 months

THERAPY FOCUS

- Surgical scar mobility to begin once good wound closure has occurred (~6 weeks)
- Active ankle range of motion in all planes
- Lower extremity strengthening with specific attention to ankle dorsiflexion, ankle plantarflexion (concentric and eccentric), inversion, eversion and foot intrinsics
- Safe to add resistance training after 12 weeks and when patient demonstrates full active range of motion in all planes
- Gait training with AFO until cleared by doctor
- Global focus on heel-toe gait pattern
- Neutral foot alignment in supervised standing
- Home exercise program to focus on strengthening and maintaining range of motion in all planes
- Anticipate full return to baseline function about 3-6 months post-op (with AFO) / 1 year (without AFO)