Zimmer® Trabecular Metal™ Total Ankle

In Harmony with Natural Anatomy.

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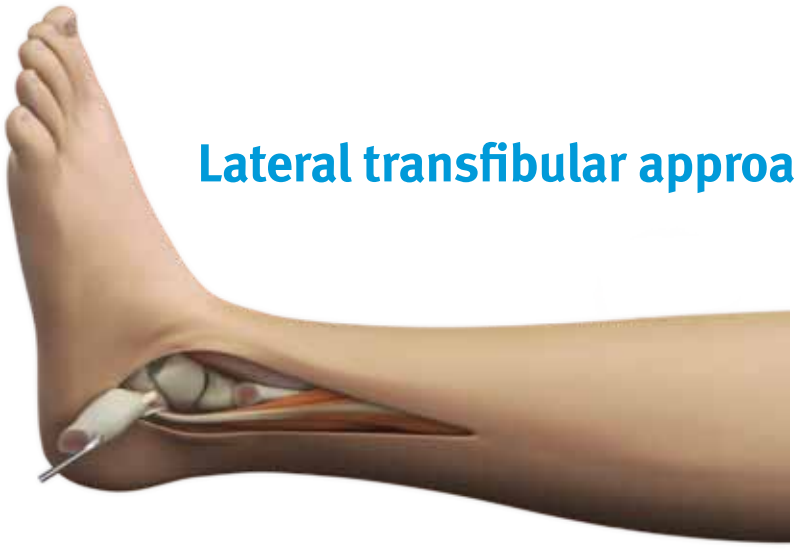
Personal Fit. Renewed Life.™

Zimmer® Trabecular Metal™ Total Ankle:

In harmony with natural anatomy

The innovative *Zimmer Trabecular Metal* Total Ankle implant is designed to reproduce the ankle's full natural flexibility and motion. Its low profile design, lateral surgical approach, and industry first *Prolong*® Highly Crosslinked Polyethylene combine to deliver an implant system that is in tune with the patient needs.

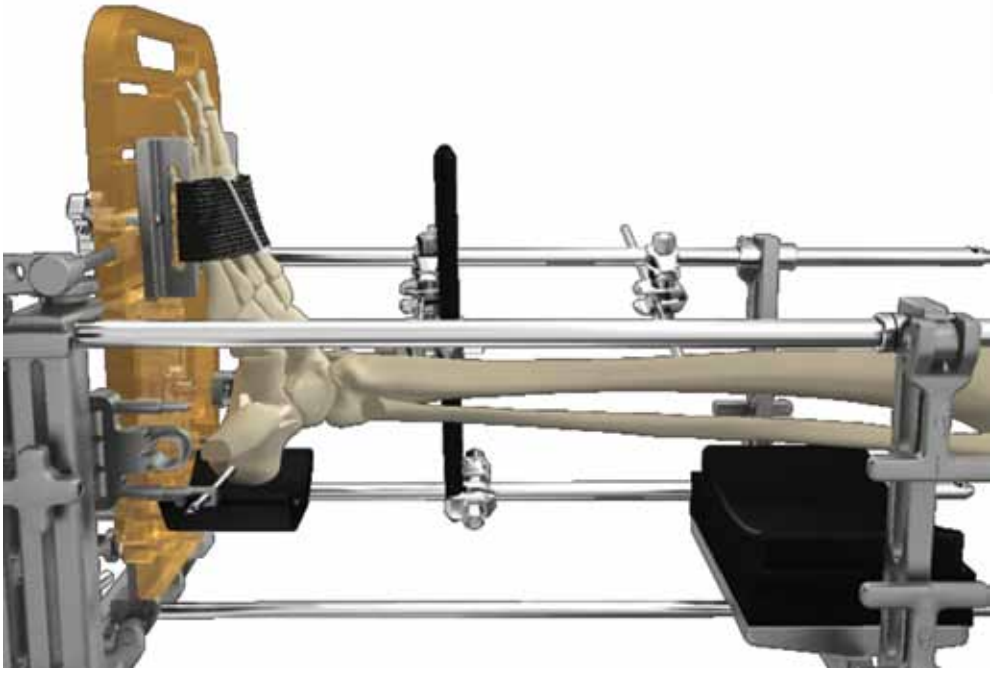


Lateral transfibular approach for peace of mind

- Potential to reduce risk of post-operative complications that result from stressing neurovascular structures and disrupting angiosomes[1,2]
- Anatomic center of rotation is fully visualized and can be more precisely replicated
- Fibular length and implant thickness can be balanced to natural deltoid ligament tension, minimizing stress on deltoid ligament and accompanying talar blood supply

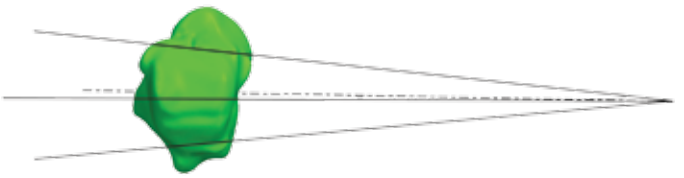
Proprietary alignment and bone preparation system enables simplified precision

- Alignment frame is intended to make surgery more repeatable and reproducible by providing rigid fixation for bone and instruments
- Bone resection plane established normal to long axis of tibia to reduce variability in coronal plane alignment
- Foot remains in plantargrade position during surgery to ensure proper tibio-talar alignment



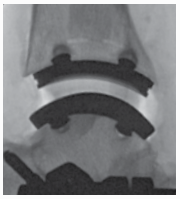
Anatomic articulation restores natural motion

- Bicondylar, conical articulation designed to allow for more normal integration with tendon and muscular function and reproduce natural motion path of ankle
- Accommodates axial rotation and A/P translation motions found in normal walking gait
- 6 implant sizes available in anatomic configurations, with variable radii of curvature proportional to implant size, as in the natural ankle



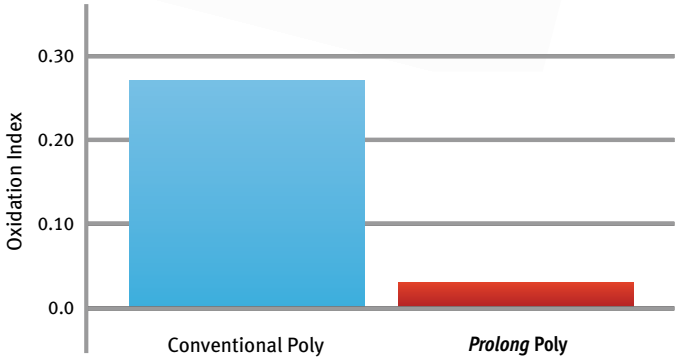
Verne T. Inman MD, Ph D demonstrated the trochlea of the talus is shaped like the frustum of a cone.[6]

Advanced implant designed to endure



- *Prolong* Highly Crosslinked Polyethylene bearing surface engineered to reduce volumetric wear[3,4]
- Curved bone-implant interface designed to minimize subsidence
- Rails oriented in coronal plane to stabilize implant against normal joint motion
- Semi-conforming articulation designed to limit point loading when varus/valgus stresses are present

Prolong *Polyethylene has been shown to reduce oxidation through the virtual elimination of free radicals*[4]



*Data represents testing performed on *NexGen*® Knee Tibial components.

A more natural approach to ankle arthroplasty

The *Zimmer Trabecular Metal* Total Ankle maintains harmony with natural anatomy as its central design concept.

This innovative implant and instrument design brings contemporary advances realized in knee and hip arthroplasty technology to total ankle arthroplasty.

Forward thinking. Back to nature.

References

1. Gill LH. Challenges in Total Ankle Arthroplasty. *Foot and Ankle International*, 2004;Vol. 25, No. 4: 195-207. 2. Saltzman CL, et al. Prospective Controlled Trial of STAR Total Ankle Replacement Versus Ankle Fusion: Initial Results. *Foot and Ankle International*, 2004;Vol. 30, No. 7: 579-596. 3. Data on file at Zimmer. 4. Gsell R, Yao JQ, Laurent MP, Crowninshield RD: Improved oxidation resistance of highly crosslinked UHMWPE for total knee arthroplasty. Society for Biomaterials 27th Annual Meeting Transactions, 84, 2001. 5. Bell, C.J., Fisher J, "Simulation of Polyethylene Wear in Ankle Joint Prostheses", J Biomed. Mater Res. Part B: Appl. Biomater., 81B: 162-167, 2007. 6. Inman V The Joints of the Ankle. Williams and Wilkins 1976.

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