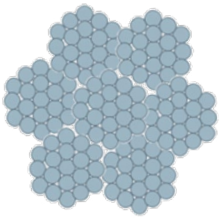
Smith+Nephew

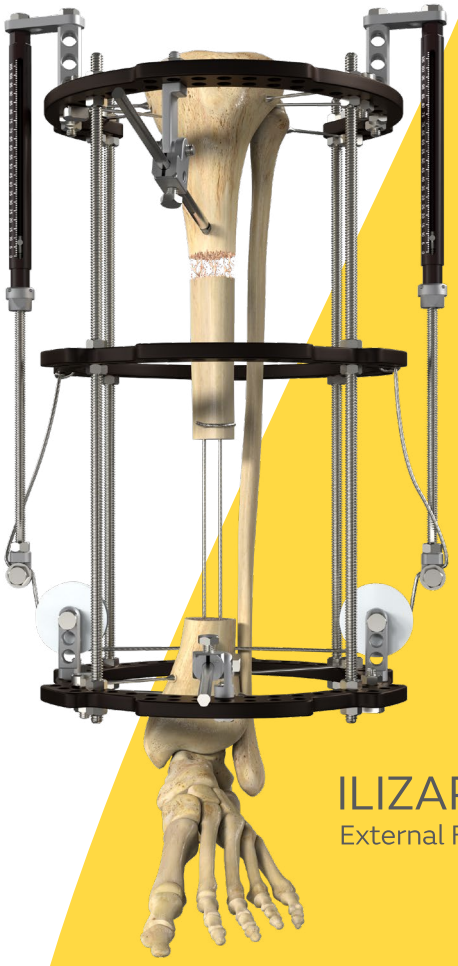
Balanced Cable Transport with Circular Fixation can be used to treat bone defects, including those greater than 10cm[1], in the presence of compromised soft tissue[2], while the patient continues to weight-bear as tolerated.[3] The new Transport Strut is designed to provide a stable and efficient motor for the Cable performing the bone transport.

- Transport Strut connects to the Ring using an ILIZAROV Bolt. Raising the height of connection with ILIZAROV componentry extends the working length of the frame
- Long Transport Strut range is 0-105mm
- Medium Transport Strut range is 0-50mm
- Patient makes 0.25mm adjustments per surgeon-recommended schedule
- The Ring at the transport segment is not fixed to bone – no pins or wires drag through the soft tissue
- DC Counters can be applied at the middle Ring to achieve lengthening during transport
- The Cable exits the intramedullary canal of the transport segment and enters the IM canal of the docking site
- The 'balance' of the Cable is achieved by directing it around a Fulcrum Pin in the docking segment
- The frame on the docking site can be converted to a TSF◊ to achieve perfect docking

The ILIZAROV Cable 1.8mm x 1200mm



- The Cable is a braided multifilament 316LVM Stainless Steel configuration
- Seven bundles with 19 fibers in each bundle
- Each fiber is 12µm
- Total 133 fibers
- Turns corners and does not kink
- Exceptional strength – in construct testing to 400lbf no structural compromise of the Cable was observed[4]



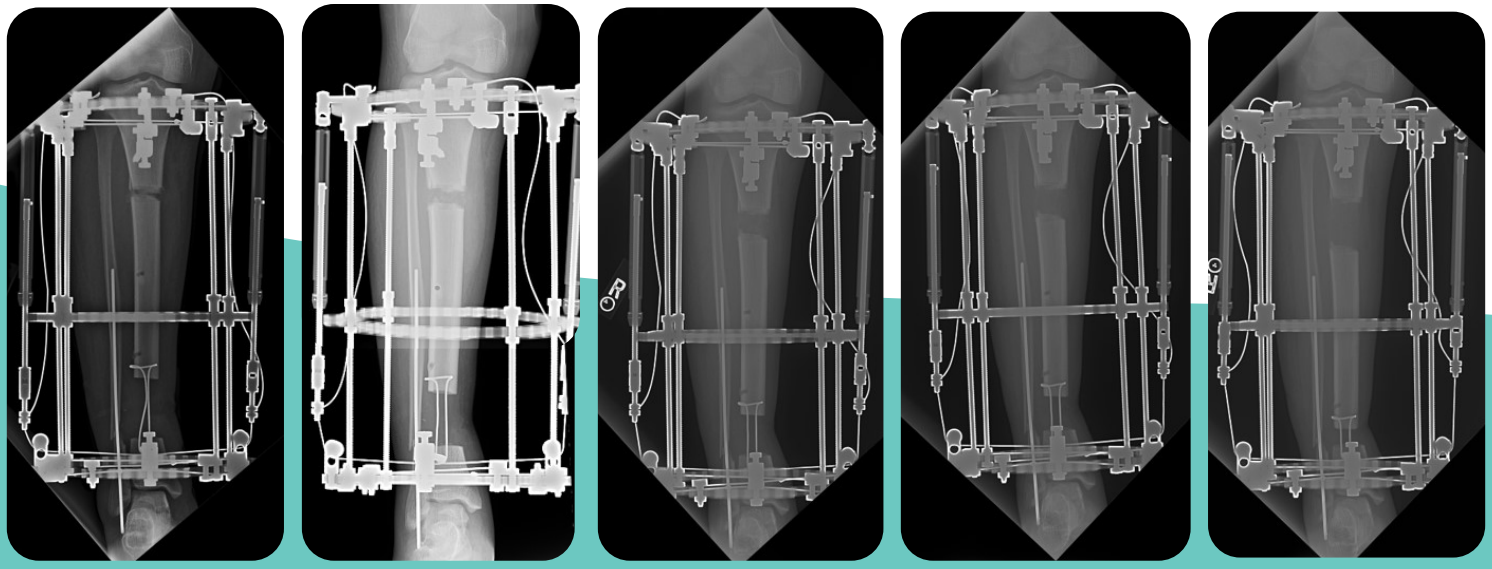
Parts List for BCT Technique

71970663	ILIZAROV Pulley 20mm (pair)
71970659	ILIZAROV Pulley 40mm (pair)
71970660	ILIZAROV Pulley 60mm (pair)
71970661	Cable 1.8mm x 1200mm
71935755	Long Transport Strut
71935756	Medium Transport Strut
71111579	Hewson Suture Retriever

ILIZAROV™
External Fixator

Case example of bone transport using Balanced Cable Transport with Circular Fixation

Images used with permission of Stephen M. Quinnan, MD



2 weeks | 4 weeks | 6 weeks | 7 weeks | 10 weeks

Benefits of Balanced Cable Transport include –

- Ability to regenerate bone in defects greater than 10cm[1]
- Prevention of the scarring and pain that comes from wires and pins dragging through skin[1]
- Ability to transport beneath rotational flaps, free flaps and marginal soft tissue[2]
- Reduced pin cellulitis due to fewer pin sites
- Facilitates multi-focal transport[1]
- Facilitates conversion to internal fixation when desired[1]
- Transport of small bone segments is facilitated by the 1.8mm Cable
- Transport into a very small bone segment, or transport into the talus or calcaneous for fusion, is facilitated by the 1.8mm Cable and ILIZAROV™ Wire fixation

Watch Dr Quinnan perform a tandem trifocal bone transport using Circular Fixation and BCT
https://www.smith-nephew.com/education

Click here to access 19063 71081173 ILIZAROV Balanced Cable Transport with Circular Fixation Surgical Technique

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References
1. Quinnan, SM and Lawrie, C. Optimizing Bone Defect Reconstruction – Balanced Cable Transport with Circular External Fixation. J Orthop Trauma 2017; 31: e347-e355. **2.** Paley D., Maar D.C. Ilizarov bone transport treatment for tibial defects. J Orthop Trauma. 2000; 14(2): 76–85. **3.** Ilizarov, S., & Rozbruch, S. R. (2007). Limb Lengthening and Reconstruction Surgery. New York: Informa Healthcare USA Inc. **4.** Mechanical Integrity of Balanced Cable Bone Transport with Circular Fixation. Smith+Nephew ORR-20-122.