

Innovative Internal Solutions for Pediatric Deformity Correction and Limb Lengthening



A Guided Growth Technique With the eight-Plate Corrects Deformities Without Osteotomies

The Guided Growth Technique with the eight-Plate allows the correction of axial deformities in the upper and lower limb with a minimally invasive approach. The eight-Plate avoids osteotomy and overcomes the drawbacks associated with traditional stapling.

Indications

The eight-Plate is indicated for any angular deformity in a growing child/adolescent who would otherwise require an osteotomy.

Benefits to Surgeons and Patients

- Simple, minimally invasive technique with reproducible results
- Gradual and safe correction at or near the CORA extra-physal
- Flexible implant with which the physis is tethered not compressed
- One plate per physis regardless of patient size or weight
- Allows immediate weight bearing and does not require casting
- Outpatient procedure

Contraindications

The eight-Plate should not be used for adult deformities or where the growth plate has closed, such as due to trauma, infection or skeletal maturity.

eight-Plate Clinical Cases Provided by Dr. Peter Stevens

Focal Femoral Dysplasia



www.8plate.com

Congenital Metaphyseal Dysplasia



Diverging screws function like a hinge to avoid physis compression.



Intramedullary Skeletal Kinetic Distractor for Tibial and Femoral Lengthening



The ISKD offers internal lengthening of up to 8cm through distraction osteogenesis following a simple nailing technique. The ISKD rod uses a patented roller clutch mechanism to mechanically distract, without binding, in response to normal movement of the treated limb or simple daily exercises. The ISKD will lengthen to the distance determined in pre-operative planning and then cease distraction.

Indications

The ISKD is indicated for limb lengthening of the tibia and femur, and is used for:

- Post-traumatic lengthening
- Lengthening following acute shortening
- Lengthening in cases of congenital shortening
- As an alternative to closed shortening

Benefits to Surgeons

- Lengthening with a simple nailing technique
- Gradual callus distraction provides a natural lengthening process
- Mechanical alignment and stability is maintained during lengthening and throughout consolidation.
- Avoids drift to Varus/Valgus

Benefits to Patients

- Internal device reduces psychological and social stress
- Less painful than other lengthening methods
- Minimal scarring
- No risk of pin-track infections
- Hand held monitor allows patients to follow their lengthening progress

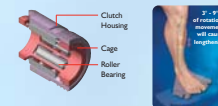
Clinical References

Cole, J., et al. The intramedullary skeletal kinetic distractor (ISKD): first clinical results of a new intramedullary nail for lengthening of the femur and tibia. 2001; 32, Suppl 4: 129-139.

Hankemeier, S., et al. Improved comfort in lower limb lengthening with the intramedullary skeletal kinetic distractor: Principles and preliminary clinical experiences. Arch Orthop Trauma Surg 2004; 124: 129-133.

Hankemeier, S., et al. Limb lengthening with the intramedullary skeletal kinetic distractor (ISKD). Operat Orthop Traumatol 2005; 1: 79-101.

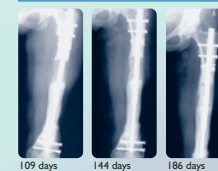
Thonsee, R., et al. Limb lengthening with a fully implantable, telescopic, intramedullary nail. Oper Tech Orthop 2005; 15: 355-362.



Distraction Phase



Early Consolidation Phase



A hand-held monitor with a magnetic sensor allows patients to track their lengthening progress by following the position of the magnetic poles within the implanted device.

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Orthofix has a full line of external fixators for pediatrics:



Sheffield Ring Fixator



LRS Rail Lengthener



M2 MultiPlaner



MiniRail Fixator



XCaliber Fixator

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