A Superconstruct™ for the Treatment of Charcot Deformity

Bridging Advances in Technology and Technique
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Superconstruct™: Fixation and techniques utilized beyond the normal principals of orthopaedics in order to improve stability in the Charcot patient.

- Bridge Beyond the Area of Injury
- Use the Strongest Device
- Maximize the Mechanical Function
Bridge beyond the Area of Injury

“...fusion is extended beyond the zone of injury to include joints that are not affected to improve fixation...the fixation is dramatically improved”

- AXIS Beams from 70-160mm
Use the Strongest Device
“...the strongest device is used that can be tolerated by the soft tissue”

- Large Shank Beams with Sizes up to 7.5mm
- Thread Design Optimized to Handle Higher Bending Forces
- Type II Anodized Titanium Alloy for Enhanced Fatigue Strength

AXIS Strength Advantage
39% Reduction in Stress Risers

Data on file

More Material Where Needed Most

AXIS: Novel Parabolic Thread Shape

AXIS Thread Shape = More Material at Screw's Weakest Point

Traditional Screw Trapezoidal Shape Thread

Highest Forces = Highest Potential Stress Riser

Optimized Thread Transition of Minor Diameter To Shaft

AXIS:
More Material to Minimize Stress Risers

Competitive Screw:
No Thread Transition to Shaft = Higher Risk for Stress Riser
Maximize the Mechanical Function

“...devices are applied in a position that maximizes mechanical function”

- Intramedullary Beaming Minimizes Stress Risers in Cortical Bone as Seen from Placement of Plates and Oblique Screws
- X-Clip Acts as an “Intraosseous Anchor” to create a Superconstruct™
  - Improves Thread Purchase
  - Improves Construct Stability Through Maintenance of Compression
  - Increases Surface Area to Dissipate Shear Forces
Indications For Use: The AXIS Charcot Fixation System in diameters of 5.5, 6.5 and 7.5mm is indicated for reconstruction procedures, non-unions and fusions of bones in the foot and ankle including the metatarsals, cuneiforms, cuboid, navicular, calcaneus and talus; specific examples include: medial and lateral column fusion resulting from neuropathic osteoarthopathy (Charcot).