Versatility meets stability
Versatility

Utilizing the same instrumentation, the single subtrochanteric screw can provide sufficient fixation for stable intertrochanteric and subtrochanteric fractures.

Biomechanical fatigue testing results summary

All three INTERTAN® single lag screw constructs and all three INTERTAN two-integrated screw constructs survived 500,000 cycles without failure.¹
Optimal stability

For unstable fracture patterns, the integrated lag and compression screw construct of the TRIGEN° INTERTAN° Nail System offers optimal rotational stability and resistance to cut-out.

In a separate, independent lab test designed to test rotational stability, "The TRIGEN INTERTAN with its interlocking screw design was superior" to the PFNA, standard Gamma 3 and Gamma 3 with U-Blade (Gamma RC Lag Screw). ² The PFN showed to have greater rotational stability, however it was also associated with a major z-effect problem, high cut-out and a 24.6% re-operation rate ³ and was never marketed in the US.

Rotational stability

In a lab test designed to replicate the protocol of the Sommers cutout test, Russell et al compared the INTERTAN nail with both single lag and helical blade devices. ⁴ Both the single screw/blade devices cut out before 30,000 cycles. After 100,000 cycles, the INTERTAN nail was still resistant to cut-out. The INTERTAN nail survived 100,000 cycles without evidence of cut-out.

Cycles to cut-out
References
1 Cartner J; Summy S; Zheng Y; Whitten A; Jones, B. Biomechanical Evaluation of the INTERTAN Nail used with a Single Subtrochanteric Screw. Internal Testing Report.
2 Bioengineering Bulletin, Dept of Medical Engineering and Physics, Royal Perth Hospital, March 2008.
4 Russell TA; Summy SA; Whitten SA. Evaluation of cyclic cut-out failure in intramedullary nails using a single lag screw or two integrated interlocking screws. Poster Presentation. 2006 Annual Meeting, American Academy of Orthopedic Surgeons, Chicago, IL.