

Triathlon® Revision Knee System



Triathlon Revision features a single radius design and precision reamed tibial and femoral Triathlon Titanium Cone Augments. The system is designed to provide stability and alignment of the revision components while maintaining simplicity in the O.R.

Simplicity

- Reamer-based instruments are designed to allow for quick, simple, and accurate tibial and femoral cone preparation, backed by intuitive assembly and usage.¹⁻⁵
- Conical bone preparation is designed to provide an intimate, line-to-line fit, which allows for accurate cone positioning and initial fixation.^{1,3,4,6,7}
- Trial Cutting Guide is designed to simplify gap balancing, reconstruct the joint line, and allow for adjustable **in situ offsetting**.^{8,9}
- Triathlon's built-in femoral offset has been shown to reduce the need for offsetting in the femur to only 8.1%¹⁰ of the time, while other systems have been shown to require offsetting up to 55.4 % of the time.¹¹

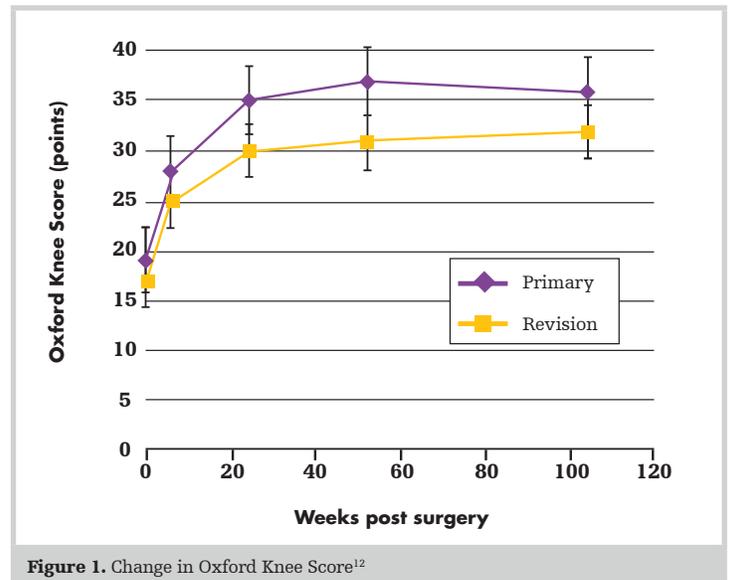


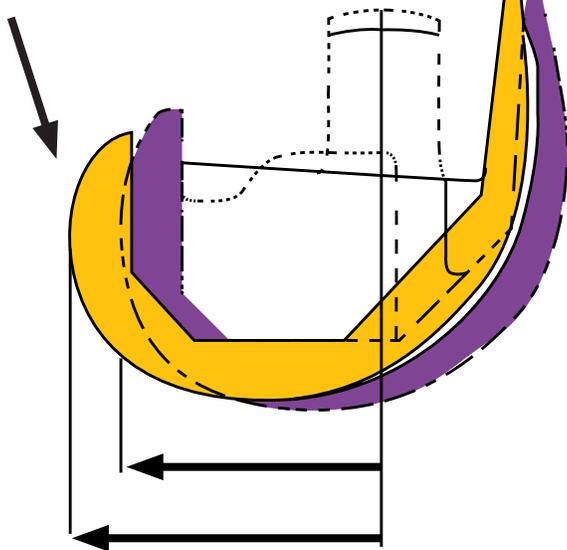
Figure 1. Change in Oxford Knee Score¹²

Stability

- One study showed that revision TKA with Triathlon TS achieved similar results in OKS, pain score, knee flexion, and timed functional performance when compared to primary TKA (see figure 1).¹²
- The single radius is designed to restore the knee's single center of rotation during active flexion, allowing for constant ligament balance and enhanced stability in flexion.¹³⁻¹⁸
- The Triathlon TS insert gives ± 2 degrees of varus/valgus constraint while allowing ± 7 degrees of internal/external rotation.^{19,20}
- X3 Advanced Polyethylene bearing technology has been shown to reduce wear through crosslinking without the use of additives.²¹⁻²²
- When used with the Universal Baseplate, Triathlon's interchangeable femoral components and tibial inserts provide the intraoperative flexibility of various constraint options: PS Femur with TS insert or TS Femur with PS insert.

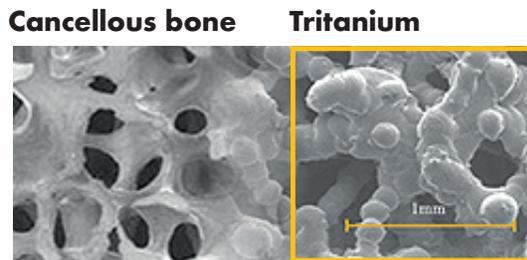
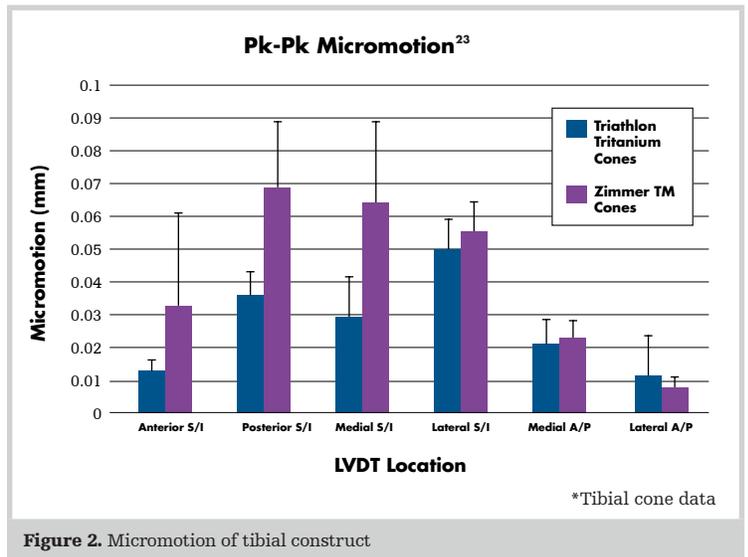


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Fixation

- Triathlon Tritanium Cone Augments are composed of a highly porous metal biological fixation surface which is designed to mimic the structure of cancellous bone.
- Additive manufacturing allows for the creation of unique cone augment designs that feature reduced cross sections, enabling large diameter stem use, and rotational freedom.¹
- The Cone Augments are designed to stimulate metaphyseal fixation without constraining subsequent implant positioning.¹
- SOMA-designed shapes and sizes help meet reconstruction challenges and fit a broad range of patients.²³
- In a cadaveric model where stair descent biomechanics was simulated, the Triathlon tibial and femoral cones demonstrated enhanced stability and less micromotion compared to traditional (TM) tantalum metaphyseal cones (see figure 2).²³



References:

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