

Triathlon Knee System

The Science of:

- Increased motion⁸
- Better fit⁹
- Improved wear performance¹⁰



Learn how Triathlon was designed with women in mind.

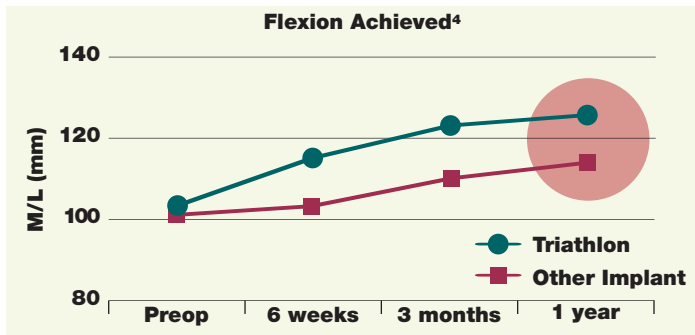
- Over 60% of total knee replacements are performed on women.¹
- Triathlon was the first total knee system designed with women in mind.
- The design of Triathlon offers a wide range of sizing options that closely match both the female and male anatomy.⁹
- The smaller sizes are narrower, and a narrower implant accommodates the female bone structure, which improves fit and function for women.⁹

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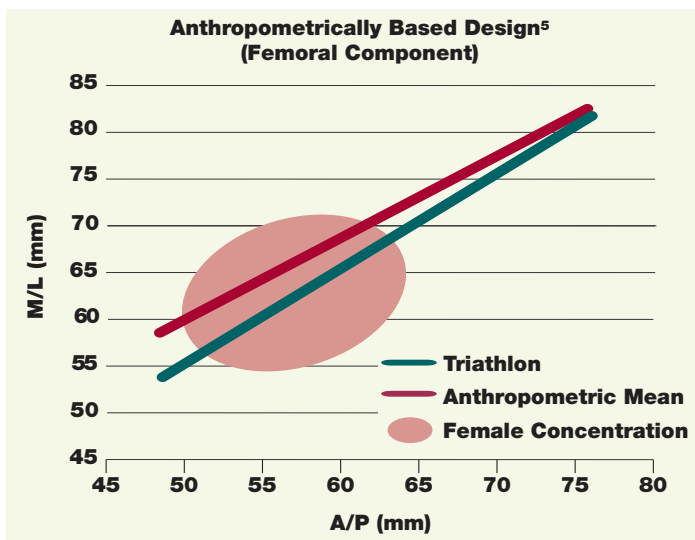
Increased Motion

- Design features such as a patent pending anatomic radius, deep flexion radius and flared posterior condyles, as well as Rotary Arc and anatomic patellofemoral track allow the Triathlon Knee System to maintain substantial contact area throughout the entire range of motion.²
- The deep flexion features of the components are designed to help increase rotation in deep flexion without sacrificing stability.*
- The femoral geometry in conjunction with the Rotary Arc accommodate increasing amounts of internal/external rotation as necessitated by greater degrees of flexion.³
- Patients achieve 12-15% increase in motion after one year.⁴



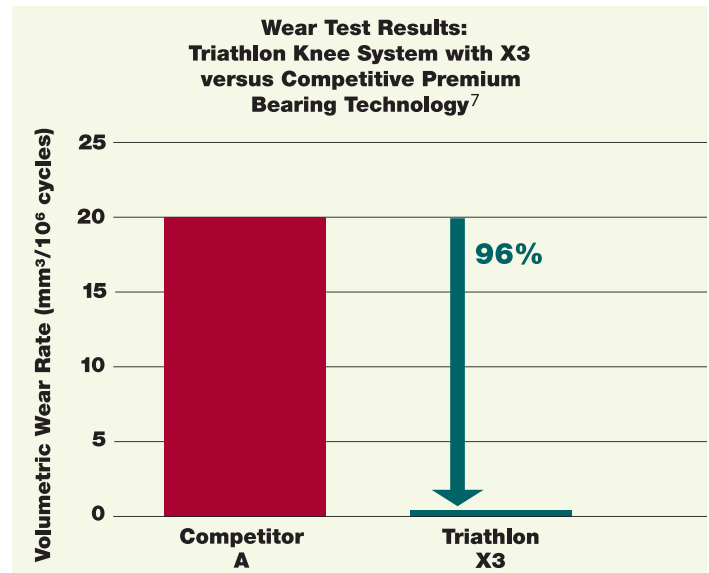
Better Fit

- Broad range of size offerings are based on an anthropometric measurement study⁵ for improved interplay between implant geometry and anatomic structure for women and men.
- A 7-degree anterior flange is designed to enable downsizing with lower incidence of notching.
- Designed with women in mind, the Triathlon design incorporates a variable aspect ratio to better fit the female anatomy while still accommodating the male population.



Improved Wear Performance

- The durability of knee implants is dependent on the bearing material in conjunction with the appropriate balance of conformity and constraint.
- An appropriate degree of conformity throughout the entire range of motion is designed to reduce contact stresses and wear, offering the potential for enhanced long-term component durability.⁶
- The combination of Stryker's X3 Advanced Bearing Technology and the Triathlon Knee System, has demonstrated a 96% wear reduction in laboratory testing on wear simulators over the leading competitive premium bearing technology.⁷



1. American Academy of Orthopedic Surgeons.
2. Stryker initiated Dynamic Computer Simulations of Passive ROM and Oxford Rig Test, Stephen Piazza, 2003.
3. Stryker Orthopaedics Test Report RD-03-041.
4. Hitt, K., presented at Snowmass meeting, February 2006.
5. Hitt, K., et al., "Anthropometric Measurement of the Human Knee: Correlation to the Sizing of Current Knee Arthroplasty Systems," JBJS, Vol. 85-A, Supplement 4, 2003.
6. D'Lima, D.D., Chen, P.C., Colwell, C.W. Jr., "Polyethylene Contact Stresses, Articular Congruity, and Knee Alignment," Clin Orthop. 2001 Nov; (392):232-8.
7. Stryker Orthopaedics Test Report: RD-06-013.
8. Greene, K.A. Range of Motion: Early Results from the Triathlon® Knee System, Stryker Literature Ref # LSA56., 2005.
9. Hitt, K., et al. Anthropometric Measurement of the Human Knee: correlation to the Sizing of Current Knee Arthroplasty Systems, JBJS, Vol. 85-A, Supplement 4, 2003.
10. Stryker Orthopaedics Test Report: RD-06-013.

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