

Flex Therapist CEUs

Total Knee Arthroplasty - High Flexion Prosthetic & Exercise

Improved knee flexion following high-flexion total knee arthroplasty

1. All of the following are true with regard to gender differences, except for:

- A. Unisex prosthetics may cause overstuffing of the knee capsule in women that may limit post-operative ROM.
 - B. Women have a smaller Q angle than men due to their narrower pelvic dimension.
 - C. Q-angle variations are linked to the etiology of patellar instability and pain post TKA.
 - D. All of the above are true.
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2. All subjects with _____ implants achieved post-operative ROM at least equivalent to their pre-operative value.

- A. Gender-specific high-flexion
 - B. Unisex implants
 - C. Both (A) and (B)
 - D. None of the above
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3. It is approximated that for each unit of decreasing BMI, _____ of ROM improvement can be expected with the gender specific implant.

- A. 1 degree
 - B. 2 degrees
 - C. 3 degrees
 - D. 4 degrees
-

4. The American Academy of Orthopedic Surgeons claims that the normal human knee has a passive ROM of 144 degrees and that TKA success should be characterized by post-operative ROM greater than 100 degrees.

- A. True
 - B. False
-

Kneeling and standing up from a chair as performance-based tests to evaluate knee function in the high-flexion range: a randomized controlled

trial comparing a conventional and a high-flexion TKA design

5. During kneeling, thigh-calf contact has been reported to limit flexion and can therefore obscure the potential benefit reached with high-flex TKA designs.

- A. True**
 - B. False**
-

6. Patients in the high-flexion TKA group had higher:

- A. Asymmetry between the healthy and affected legs**
 - B. Angular velocity**
 - C. Maximum flexion angle and thigh-calf contact force during kneeling**
 - D. All of the above were higher in the high-flexion TKA group**
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7. This study found a significant difference between conventional TKA and high-flex TKA when using:

- A. Traditional outcome scores proposed to evaluate knee function in the normal flexion range.**
 - B. Weight-bearing functional tests.**
 - C. Both (A) and (B).**
 - D. None of the above.**
-

8. A higher active flexion angle was obtained in the high-flexion TKA group which led to a better performance of the extensor mechanism.

- A. True**
 - B. False**
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9. If kneeling is an important activity for a patient, a high-flex design may be recommendable.

- A. True**
 - B. False**
-

Performing high flexion activities does not seem to be crucial in developing early femoral component loosening after high-flexion TKA

10. This study observed:

- A. Better knee scores for the HF group compared to the non-HF group.**
 - B. Increased loosening rates for the HF group compared to the non-HF group.**
 - C. Both (A) and (B).**
 - D. None of the above.**
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Design modifications of high-flexion TKA do not improve short term clinical and radiographic outcomes

11. Compared to traditional designs, how do high flexion prostheses incorporate modifications to improve kinematics at higher flexion angles?

- A. They have an extended sagittal curve and a 2 - 3 mm thicker posterior femoral condyle to maintain contact area and reduce stress on the insert at higher flexion angles.**
 - B. The tibial post is located 1 - 2 mm more posteriorly to guide femoral rollback during high flexion.**
 - C. The cam is extended to the surface of the femoral component posteriorly to increase the articular contact area at higher flexion angles.**
 - D. All of the above.**
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12. The femoral component of the high-flexion type implants have an elongated and widened cam design to:

- A. Increase stability**
 - B. Maintain spine strength**
 - C. Facilitate rollback**
 - D. All of the above**
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