a stemmed femur change the structural behaviour of proximal tibia? It seems that this question has not yet been fully answered and the use of stems in the opposite bone structure requires further analysis. The main insight given by the present study lies in the fact that the use of femoral stems does not contribute to an increase of the risk of failure of the tibia.



new developments in clinical biomechanics

josé antónio simões, antónio completo, ana rego, fernando fonseca

department of mechanical engineering & center for mechanical technology and automation (TEVIA), university of aveiro

Recognized failure mechanisms after revision total knee arthroplasty include failure of fixation, instability and loosening. Thus, extended stems have been used to improve fixation and stability. In clinical cases where the stem is only applied in the femur, a question concerning the structural aspect of tibia may arise: Does