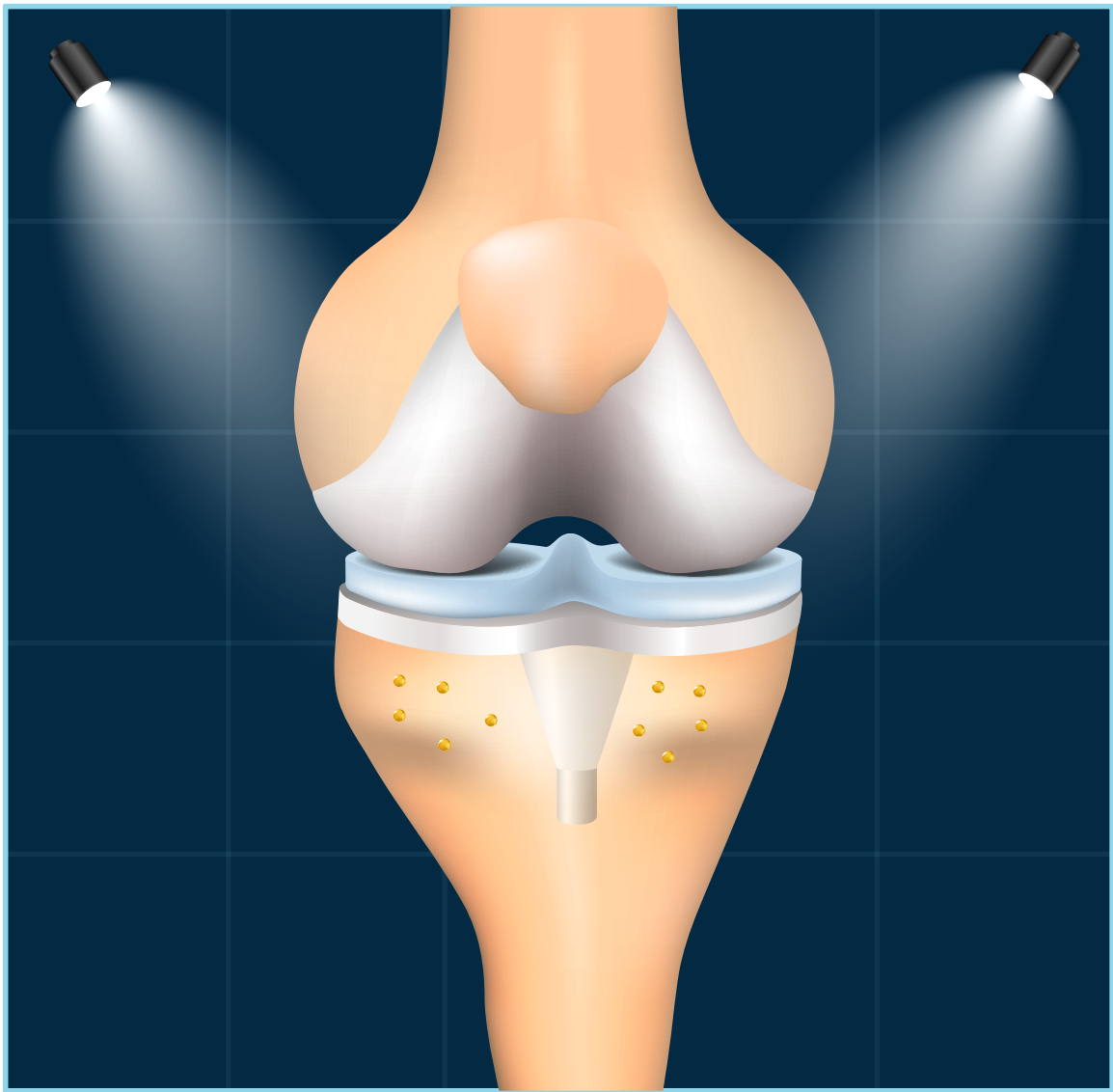


Risk Factors Associated with Implant Migration and Loosening Following Total Knee Arthroplasty

Radiostereometric analysis (RSA) is an accurate tool for detection of implant migration and prediction of loosening following total knee arthroplasty (TKA)



However, risk factors that contribute to implant migration and loosening of the tibial component are unclear

Meta-analysis of 11 long-term follow-up RSA studies



Patients who underwent TKA (N = 630)



Radiological examination for RSA



Factors assessed



Age



Sex



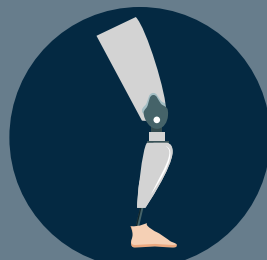
Body mass index



Diagnosis



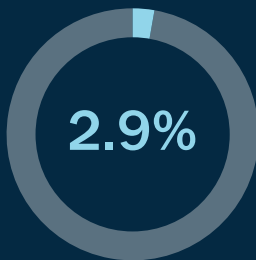
Preoperative and postoperative limb alignment



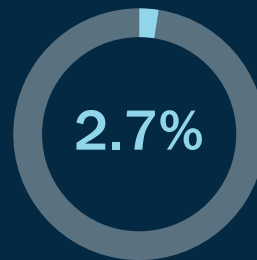
Implant characteristics



Migration patterns



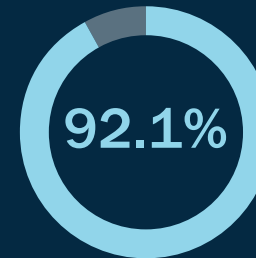
High initial migration



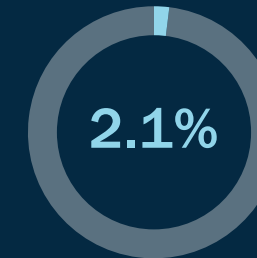
Stabilization of high initial migration



Septic loosening



Early stabilization



Late loosening



Increased migration seen with



Female sex



Rheumatoid arthritis



Posterior-stabilized implant



Cemented components



Alignment in varus and TKA without an osseointegration-promoting surface



Uncemented components



Patterns of implant migration and loosening reflect different causes of TKA failure and thus may require distinct radiological screening regimens

Risk Factors for Tibial Component Loosening:
A Meta-Analysis of Long-Term Follow-up Radiostereometric Analysis Data

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