Biotribology of a New Bearing Material Combination in a Rotating Hinge Knee Articulation


A NOVEL rotating hinge knee replacement has been investigated for wear of the novel Zirconium Nitride coated metal against PEEK-OPTIMA® Reinforced. This bearing couple is used for the bushings in the rotational and flexion axles and the medial and lateral flanges. The bearing couple has been identified as potentially useful for the treatment of patients with metal-ion hypersensitivity. The in-vitro simulation identified low wear of the novel PEEK-OPTIMA® Reinforced components (similar to that produced by CoCr in an identical investigation).
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