PETER BREHM
Die Präzision in Titan
für den Menschen

Executive Summary

Publication	**Ceramic Total Knee Arthroplasty: Ready to Go?** Solarino G, Piconi C, De Santis V, Piazzolla A, Moretti B. Joints. 2017 Dec;5(4):224-228 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5738472 (PMC free full text)
Study	-
Implant	-
Patients	-
Follow-up	-
Methods	The review article provides a general overview on the development of ceramic TKA, since the 1970s, in addition to available literature results.
Results	Ceramics are in clinical use for long time due to favourable tribological and biological properties. A standard knee wear test has shown that approximately **12% of the knee wear products were metallic (Co, Cr)**. Metal particles may become clinically relevant for metal-sensitive patients. **Metal sensitivity** is the **most common immune response to implants**. The **scratching resistance of ceramic** (BIOLOX delta, CeramTec GmbH) is about **5-fold higher than oxidized ZrNb metal alloy** (Oxinium, Smith & Nephew) and about **10-fold higher than CoCrMo metal alloy**, thus resulting in a **lower damage by third-body wear** and in a **lower wear of the polyethylene** inserts.
Key Points	Knee joint simulator tests and clinical results demonstrate **promising results of TKA with ceramic components** that should led to benefit for the patients.
Abbreviations	Co - cobalt, Cr - chromium, Mo - molybdenum, Zr - zirconium, Nb - niobium, TKA - total knee arthroplasty

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