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TRIBOLOGICAL BEHAVIOR OF METAL/ CERAMIC COUPLE USED FOR BIOMEDICAL PROSTHESIS

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Abstract : The problems of friction and wear in the prosthesis for substitution of hip joints and knees have been addressed by many authors [1–6] due to its crucial importance in the performance of these devices .The choice of the materials for the head and the cup takes into consideration not only properties such as mechanical resistance, friction and wear, but also biocompatibility and corrosion resistance. The consideration of pro's and contra's led to the conclusion that among the best combinations are ultra high molecular weight polyethylene (UHMWPE) for the cup and alumina, stainless steel or CoCrMo alloy for the head [1,2]

Keywords : friction, wear, Biomaterials, ceramic, biomechanics