

TABLE E-1 Tribological Parameters of the Investigated Femoral and Acetabular Bearing Surfaces*

Case	Age (yr)	Side	Time in Situ (mo)	Head/ Inlay	Radius (mm)	Clearance (μm)	Maximal Linear Wear (μm)	Maximal Linear Wear Rate ($\mu\text{m}/\text{yr}$)	System Total Wear Rate ($\mu\text{m}/\text{yr}$)	Volumetric Wear (mm^3)	System Volumetric Wear (mm^3)	System Volumetric Wear Rate (mm^3/yr)	System Total Weight Loss Rate (mg/yr)	System Total Weight Loss (mg)
1	65	R	36	Head	13.999	90	13.7	4.57	7.6	2.78	6.18	2.06	17.3	51.8
				Inlay	14.044		9.2	3.07		3.4				
2	81	L	36	Head	13.998	78	5	1.67	3.3	0.98	2.08	0.69	5.8	17.4
				Inlay	14.037		5	1.67		1.10				
3	81	L	50	Head	13.997	100	7	1.68	3.6	0.64	1.84	0.44	3.7	15.4
				Inlay	14.047		7.8	1.87		1.20				
4	63	L	67	Head	14.001	88	9.3	1.67	2.6	1.75	2.33	0.42	3.5	19.5
				Inlay	14.045		5.4	0.97		0.58				
5	81	R	68	Head	14.001	94	7.6	1.34	2.3	1.03	1.88	0.33	2.8	15.8
				Inlay	14.048		5.5	0.97		0.85				
6	57	L	72	Head	13.996	94	14.3	2.38	3.3	2.58	3.15	0.53	4.4	26.4
				Inlay	14.043		5.6	0.93		0.57				
7	63	R	76	Head	14.002	92	10.5	1.66	2.8	1.75	3.37	0.53	4.5	28.2
				Inlay	14.048		7.1	1.12		1.62				
8	81	L	84	Head	13.989	94	13	1.86	3.3	3.02	6.09	0.87	7.3	51.0
				Inlay	14.036		10	1.43		3.07				
9†	78	R	120	Head	14.001	72	4	0.40	NA	1.05	NA	NA	NA	NA
				Inlay	14.037		NA	NA		NA				
Mean			68		14.021	89	8.5	1.8	3.6	1.7	3.4	0.73	6.1	28.2
Min			36		13.989	72	5	0.9	2.3	0.6	1.8	0.33	2.8	15.4
Max			120		14.048	100	14.3	4.6	7.6	3.4	6.2	2.06	17.3	51.8
Reference 12 days				Head	13.996	92								
				Inlay	14.042									

*NA = not available. †Case 9 had to be excluded from statistical evaluation of wear parameters since the metal inlay of the acetabular cup suffered from severe deformation at explantation.