

Table E-1. Aggregate Biomechanical and Anatomic Data: Preoperative v. Postoperative

	MMSR (n=50)				THR (n=40)				Raw difference between groups	Difference between groups (adjusted by baseline characteristics)	95%CI for the adjusted difference	p value for the adjusted difference
	Pre-op	Post-op	Difference	p value	Pre-op	Post-op	Difference	p value				
Horizontal COR (mm)	39.34 (22.0 to 50.5) [5.1]	32.82 (22.4 to 40.3) [3.6]	<b>-6.52</b> <b>(-14.1 to 7.3)</b> <b>[4.3]</b>	<0.00001	36.2 (21.7 to 59.1) [7.8]	30.7 (22.8 to 38.9) [4.0]	<b>-5.6</b> <b>(-22.0 to 5.2)</b> <b>[6.3]</b>	<0.00001	1.1	<b>0.9</b>	-0.5 to 2.2	0.20
Vertical COR (mm)	16.7 (9.5 to 26.9) [4.1]	16.3 (5.5 to 29.9) [5.1]	<b>-0.5</b> <b>(-6.1 to 7.8)</b> <b>[3.3]</b>	0.264	16.5 (5.5 to 29.9) [5.1]	16.2 (3.3 to 27.6) [5.2]	<b>-0.3</b> <b>(-8.2 to 10.4)</b> <b>[4.6]</b>	0.70	0.2	<b>1.3</b>	-0.3 to 3.0	0.11
Vertical Femoral Offset (mm)	69.5 (49.7 to 84.1) [8.1]	74.4 (56.5 to 92.8) [9.0]	<b>4.9</b> <b>(-5.0 to 15.7)</b> <b>[4.1]</b>	<0.00001	68.9 (40.7 to 85.3) [8.9]	71.2 (59.0 to 87.0) [5.8]	<b>2.3</b> <b>(-12.9 to 23.4)</b> <b>[6.8]</b>	0.030	2.6	<b>0.8</b>	-3.0 to 1.3	0.44
Horizontal Femoral Offset (mm)	32.2 (21.5 to 45.3) [6.4]	31.4 (17.9 to 44.4) [5.9]	<b>-0.8</b> <b>(-12.4 to 9.3)</b> <b>[4.5]</b>	0.207	32.7 (7.2 to 53.3) [8.4]	42.3 (25.7 to 49.4) [5.4]	<b>9.5</b> <b>(-8.5 to 23.1)</b> <b>[7.2]</b>	<0.00001	10.3	<b>11.7</b>	9.7 to 13.8	<0.0001
Limb Length (mm)	53.4 (28.8 to 70.5) [9.5]	58.0 (36.5 to 75.6) [7.9]	<b>4.6</b> <b>(-4.4 to 12.0)</b> <b>[3.9]</b>	<0.00001	53.5 (28.0 to 66.7) [8.4]	56.4 (37.7 to 71.8) [7.5]	<b>2.9</b> <b>(-6.7 to 12.1)</b> <b>[5.3]</b>	0.001	1.7	<b>1.3</b>	-3.2 to 0.5	0.15
Neck-Shaft Angle (°)	140.3 (128 to 152) [4.8]	145.7* (128 to 163) [6.2]	<b>5.4</b> <b>(-12 to 19)</b> <b>[6.4]</b>	<0.00001	137.2 (128 to 152) [5.5]	132.9 (130 to 140) [2.7]	<b>-4.4</b> <b>(-15 to 4)</b> <b>[4.5]</b>	<0.00001	9.8	<b>9.6</b>	-12.0 to -7.2	<0.0001

Mean  
(range)  
[SD]  
\* Stem-Shaft Angle (°)

Table E-2. Agregate Biomechanical and Anatomical Data: Postoperative v. Normal Contralateral.

	MMSR (n=22)				THR (n=19)				Raw difference between groups	Difference between groups (adjusted by baseline characteristics)	95%CI for the adjusted difference	p value for the adjusted difference
	Post-op	Contralateral	Difference	p value	Post-op	Contralateral	Difference	p value				
Horizontal COR (mm)	32.8 (27.6 to 37.7) [3.3]	34.6 (29.6 to 43.3) [3.6]	-1.8 (-7.5 to 5.4) [3.0]	0.009	28.7 (22.8 to 34.2) [3.6]	29.7 (24.6 to 34.3) [3.3]	-1.0 (-6.2 to 5.5) [2.8]	0.134	0.8	0.7	-1.4 to 2.9	0.50
Vertical COR (mm)	16.6 (10.4 to 23.6) [3.6]	13.4 (9.5 to 17.3) [2.3]	3.2 (-1.2 to 9.3) [2.9]	<0.00001	16.3 (10.8 to 25.0) [4.1]	13.0 (5.7 to 22.8) [3.6]	3.3 (-2.8 to 11.8) [4.2]	0.003	0.1	0.4	-1.8 to 2.57	0.73
Vertical Femoral Offset (mm)	75.6 (61.0 to 92.8) [8.8]	73.2 (59.4 to 87.0) [8.3]	2.4 (-6.5 to 16.8) [5.0]	0.033	69.4 (59.0 to 87.0) [6.4]	66.5 (56.4 to 82.7) [6.4]	2.9 (-4.1 to 15.5) [4.4]	0.010	0.5	0.5	-2.5 to 3.49	0.74
Horizontal Femoral Offset (mm)	29.4 (19.9 to 41.6) [5.8]	37.8 (26.0 to 50.0) [6.3]	-8.4 (-22.4 to 1.9) [5.9]	<0.00001	40.4 (25.7 to 48.1) [6.3]	35.2 (26.3 to 43.6) [4.6]	5.2 (-4.7 to 19.8) [5.5]	0.001	13.5	11.5	7.69 to 15.33	<0.0001
Limb Length (mm)	58.5 (42.1 to 70.4) [7.9]	60.6 (45.1 to 75.0) [8.1]	-2.2 (-13.3 to 8.2) [6.0]	0.100	53.7 (37.7 to 64.0) [7.4]	54.8 (43.7 to 61.5) [5.6]	-1.1 (-19.5 to 10.4) [7.1]	0.499	1.0	0.3	-5.18 to 4.50	0.88
Neck-Shaft Angle (°)	147.5 (139 to 156) [5.5]	136.3* (128 to 148) [5.5]	11.2 (-2 to 25) [6.5]	<0.00001	133.4 (130 to 140) [3.3]	135.4 (130 to 142) [3.5]	-2.0 (-9 to 1) [2.3]	0.001	13.2	13.2	-16.4 to 10.0	<0.0001

Mean  
(range)  
[SD]

\* Stem-Shaft Angle (°)