

**Supplementary Table 1.** Interobserver reliability for acetabular start segment identification and key morphometric measures

Variable	ICC (2,1)	95% CI	Weighted $\kappa$
Acetabular start segment identification	1	-	1
Cylinder length	0.980	0.952–0.992	-
Bottleneck diameter	0.962	0.907–0.985	-

Two observers independently processed a representative subset of 20 models using the same prespecified protocol (trajectory planning, ASS identification, and morphometric derivation). Interobserver reliability for continuous measures was quantified using a 2-way random-effects ICC with absolute agreement for single measurements (ICC [2,1]). Agreement for ASS identification was additionally evaluated using weighted  $\kappa$ . Hyphens indicate not applicable.

CI, confidence interval; ICC, intraclass correlation coefficient;  $\kappa$ , kappa; ASS, acetabular start segment.