## **SUPPLEMENTARY DATA**

Table S1: Intra and inter tester reliability

## Results of Intra and Inter Tester Reliability for Width Measurements, by Tester.

Measurement of distance from the mid line to	Tester comparison		
	Tester one ICC (95% CI)	Tester two ICC (95% CI)	Tester one vs. Tester two ICC (95% CI)
AIIS	0.99	0.86	0.94
	(0.99 to 0.99)	(0.77 to 0.95)	(0.90 to 0.98)
Lateral acetabulum	1.0	0.99	0.99
	(1.0 to 1.0)	(0.99 to 0.99)	(0.98 to 1.0)
Superior GT	1.0	0.97	0.98
	(1.0 to 1.0)	(0.95 to 0.99)	(0.97 to 0.99)
Lateral GT	1.0	0.99	0.98
	(1.0 to 1.0)	(0.98 to 1.0)	(0.98 to 0.98)

Note. The measurement of the distance from the midline to the AIIS = Distance A; the measurement of the midline to the lateral acetabulum = Distance B; The distance from the midline to the superior GT = Distance C; the distance from the midline to the lateral GT = D.

Table S2: Intra and Inter Tester Reliability of Angle Measurements by Tester

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Measure	Tester one ICC (95%CI)	Tester two ICC (95% CI)	Tester one vs. Tester two, ICC (95% CI)
Acetabular index °	0.99	0.72	0.77
	(0.96 to 1.00)	(0.62 to 0.80)	(0.72 to 0.82)
Neck-shaft angle ° .	0.82	0.77	0.86
	(0.77 to 0.87)	(0.71 to 0.83)	(0.81 to 0.91)

## CANONICAL DISCRIMINANT ANALYSIS

**Table S3: Tests of Discriminant Dimensions** 

	Canonical correlation	F Values	P values
Dimension 1	0.55	1.47	0.048*
Dimension 2	0.43	0.99	0.485
Dimension 3	0.24	0.28	0.872

Note. \*Dimension 1 was found to differentiate between the four groups

Table S4: Group means on canonical dimensions

	Dimension 1 Peripheral adiposity and width of the lateral greater trochanter
ASC	-0.68
OA	-0.66
GTPS	0.82
GTR	0.18

Note. ASC: Asymptomatic control group; OA: Hip osteo-arthritis group; GTPS: Greater trochanteric pain syndrome group; GTR: Gluteal tendon reconstruction group. The GTPS and GTR group have positive means for dimension 1, with the GTPS group having the highest mean The ASC and OA groups have negative means for dimension 1. This suggests that peripheral adiposity and width at the superior aspect of the greater trochanter are associated with greater trochanteric pain syndrome.