

Supplementary Table 1. Percentile values for body composition measures.

Characteristic	Child							Parent						
	P5	P10	P25	P50	P75	P90	P95	P5	P10	P25	P50	P75	P90	P95
Height, cm														
Male	140.1	143.0	147.8	153.0	159.0	164.0	167.7	167.0	169.0	173.6	178.0	182.0	187.0	190.0
Female	142.0	145.0	149.0	154.0	160.0	164.3	167.0	153.6	156.0	160.0	164.0	168.0	172.0	174.0
All	141.0	144.0	148.0	153.0	159.0	164.0	167.0	154.0	156.8	160.9	165.0	170.0	176.0	180.0
Weight, kg														
Male	31.2	33.6	37.9	43.1	51.6	61.5	69.1	67.5	72.0	79.8	88.6	102.1	114.6	127.1
Female	32.5	34.4	39.4	45.5	53.2	62.5	67.2	52.9	56.2	63.2	72.3	85.9	101.3	110.6
All	31.9	33.8	38.5	44.5	52.5	62.1	68.1	53.5	57.1	64.3	74.3	88.5	104.1	113.9
BMI, kg/m²														
Male	14.9	15.6	16.7	18.4	21.1	24.6	26.9	22.9	23.6	25.3	28.0	31.3	35.1	38.1
Female	15.0	15.8	17.1	18.9	21.6	24.8	26.2	20.2	21.3	23.5	26.9	31.5	37.6	41.0
All	15.0	15.7	16.9	18.7	21.3	24.7	26.5	20.3	21.4	23.8	27.1	31.4	37.1	40.3
BMI z-score (CDC)														
Male	-1.45	-1.00	-0.37	0.41	1.13	1.76	2.07	-	-	-	-	-	-	-
Female	-1.30	-0.96	-0.25	0.44	1.11	1.68	1.83	-	-	-	-	-	-	-
All	-1.36	-0.99	-0.30	0.43	1.13	1.71	1.95	-	-	-	-	-	-	-
BMI z-score (UK 90)														
Male	-1.35	-0.90	-0.23	0.62	1.48	2.29	2.74	-	-	-	-	-	-	-
Female	-1.42	-1.06	-0.30	0.49	1.34	2.12	2.32	-	-	-	-	-	-	-
All	-1.39	-0.98	-0.26	0.54	1.40	2.18	2.56	-	-	-	-	-	-	-
Waist circumference, cm														
Male	56.8	58.5	61.1	65.4	71.8	81.6	86.5	80.8	82.9	87.9	96.6	107.1	114.4	122.9
Female	55.2	56.9	60.3	64.3	70.4	77.4	81.3	67.7	70.3	75.1	83.8	95.2	106.4	112.9
All	56.0	57.7	60.7	64.8	71.0	79.3	84.4	68.0	70.6	76.0	85.2	96.9	108.3	114.3

Characteristic	Child							Parent						
	P5	P10	P25	P50	P75	P90	P95	P5	P10	P25	P50	P75	P90	P95
Waist circumference z-score														
Male	-0.86	-0.52	0.07	0.80	1.58	2.33	2.68	-	-	-	-	-	-	-
Female	-0.96	-0.53	0.22	0.96	1.75	2.50	2.80	-	-	-	-	-	-	-
All	-0.92	-0.53	0.12	0.87	1.69	2.40	2.76	-	-	-	-	-	-	-
Waist-to-height ratio														
Male	0.38	0.39	0.40	0.43	0.46	0.52	0.55	0.45	0.46	0.50	0.54	0.60	0.65	0.68
Female	0.37	0.37	0.39	0.42	0.45	0.50	0.52	0.41	0.42	0.46	0.51	0.58	0.65	0.69
All	0.37	0.38	0.40	0.42	0.46	0.51	0.54	0.41	0.43	0.46	0.51	0.58	0.65	0.69
Total body fat, kg														
Male	3.5	4.2	5.6	8.0	12.9	19.6	26.1	11.3	13.0	16.6	22.1	30.6	41.4	46.4
Female	4.4	5.4	7.1	10.3	15.4	21.3	23.6	11.6	13.9	18.9	26.0	35.5	47.7	54.6
All	3.8	4.6	6.2	9.2	14.0	20.9	24.7	11.5	13.7	18.6	25.6	35.0	47.3	53.8
Total body fat percentage														
Male	9.7	11.2	14.5	18.6	26.4	34.7	39.5	15.4	17.1	20.7	25.0	30.8	37.2	39.7
Female	12.6	14.5	18.0	23.3	28.9	35.5	37.7	20.8	23.8	29.5	36.4	42.5	48.2	50.5
All	10.6	12.4	15.8	20.8	28.1	35.3	38.7	19.6	22.0	28.1	35.0	41.6	47.6	50.2
Total body fat-free mass, kg														
Male	26.3	27.8	30.9	34.4	39.0	43.9	46.4	52.4	55.8	61.1	66.5	72.9	79.2	81.9
Female	26.1	27.6	31.0	34.9	38.7	42.5	45.5	37.0	39.3	43.0	46.7	51.0	55.5	58.8
All	26.2	27.6	30.9	34.7	38.8	43.5	46.2	37.5	39.9	43.5	47.7	53.8	62.9	68.7
Truncal fat mass, kg														
Male	0.6	1.1	1.9	3.3	6.2	10.2	13.3	6.0	6.8	9.2	12.4	17.2	22.7	26.2
Female	1.0	1.5	2.6	4.5	7.2	10.8	12.2	5.5	6.8	9.5	13.6	18.3	23.6	25.9
All	0.8	1.2	2.2	3.9	6.6	10.7	12.6	5.7	6.8	9.4	13.5	18.2	23.5	25.9

Characteristic	Child							Parent						
	P5	P10	P25	P50	P75	P90	P95	P5	P10	P25	P50	P75	P90	P95
Truncal fat mass percentage														
Male	1.7	3.0	5.0	7.7	12.6	17.8	20.2	8.2	8.9	11.2	13.9	17.4	20.4	21.0
Female	2.9	4.4	6.5	10.0	14.2	18.0	19.5	10.0	11.5	15.0	19.1	21.7	24.0	24.6
All	2.2	3.5	5.6	8.9	13.4	17.9	19.9	9.4	10.9	14.1	18.4	21.4	23.8	24.5
Non-truncal fat mass, kg														
Male	3.2	3.5	4.0	4.9	6.7	10.0	12.6	5.5	6.0	7.5	9.6	13.8	19.1	21.1
Female	3.5	3.8	4.3	5.6	7.6	10.2	11.3	6.1	7.0	9.0	12.2	17.1	23.7	27.8
All	3.3	3.6	4.1	5.2	7.2	10.1	12.2	6.0	6.8	8.8	11.8	16.7	23.1	27.5
Non-truncal fat mass percentage														
Male	8.1	8.9	10.1	11.7	14.5	17.6	19.5	7.1	8.1	9.1	11.3	14.1	16.6	18.4
Female	9.2	9.9	11.1	12.8	15.3	17.5	19.0	10.7	11.7	14.2	17.0	20.6	24.1	26.8
All	8.6	9.3	10.6	12.4	14.8	17.6	19.3	9.3	10.7	13.3	16.4	20.2	23.7	26.1

PX: value of Xth percentile, eg P50 = median

BMI: body mass index; CDC: Centers for Disease Control; UK90: British 1990 Growth Reference.

Supplementary Table 2. Parent-child concordance in body composition measures, by child and parent sex.

	Mother-daughter		Mother-son		Father-daughter		Father-son	
	n	CC (95% CI)	n	CC (95% CI)	n	CC (95% CI)	n	CC (95% CI)
Pearson's Correlation (unadjusted)								
Height	804	0.36 (0.30 to 0.42)	801	0.36 (0.30 to 0.42)	95	0.51 (0.34 to 0.64)	130	0.16 (-0.02 to 0.32)
Weight	804	0.29 (0.22 to 0.35)	801	0.28 (0.22 to 0.35)	95	0.31 (0.11 to 0.48)	130	0.29 (0.12 to 0.44)
BMI / BMI z-score*	804	0.29 (0.22 to 0.35)	801	0.27 (0.21 to 0.34)	95	0.30 (0.10 to 0.47)	130	0.28 (0.11 to 0.43)
Waist circumference/z-score [#]	800	0.24 (0.18 to 0.31)	792	0.24 (0.18 to 0.31)	93	0.31 (0.11 to 0.48)	129	0.33 (0.16 to 0.47)
Waist-to-height ratio	800	0.31 (0.25 to 0.37)	792	0.24 (0.18 to 0.31)	93	0.39 (0.20 to 0.55)	129	0.36 (0.20 to 0.50)
Total body fat percentage	798	0.32 (0.25 to 0.38)	789	0.26 (0.19 to 0.32)	94	0.36 (0.16 to 0.52)	129	0.37 (0.21 to 0.51)
Total body fat-free mass percentage	798	0.34 (0.27 to 0.40)	789	0.27 (0.20 to 0.33)	94	0.36 (0.16 to 0.52)	129	0.35 (0.19 to 0.49)
Truncal fat percentage	640	0.30 (0.22 to 0.36)	604	0.22 (0.15 to 0.30)	84	0.30 (0.10 to 0.49)	102	0.42 (0.25 to 0.57)
Non-truncal fat percentage	640	0.31 (0.23 to 0.37)	604	0.25 (0.17 to 0.32)	84	0.27 (0.06 to 0.46)	102	0.36 (0.18 to 0.52)
Partial correlation (adjusted for covariates)[†]								
Height	803	0.39 (0.34 to 0.45)	800	0.36 (0.30 to 0.42)	95	0.50 (0.35 to 0.65)	127	0.29 (0.11 to 0.46)
Weight	803	0.27 (0.20 to 0.34)	800	0.28 (0.22 to 0.35)	95	0.29 (0.10 to 0.49)	127	0.33 (0.12 to 0.53)
BMI / BMI z-score*	803	0.27 (0.22 to 0.35)	800	0.27 (0.21 to 0.34)	95	0.30 (0.12 to 0.48)	127	0.27 (0.07 to 0.51)
Waist circumference/z-score [#]	799	0.23 (0.17 to 0.32)	791	0.24 (0.17 to 0.30)	93	0.30 (0.10 to 0.50)	126	0.33 (0.15 to 0.50)
Waist-to-height ratio	799	0.31 (0.24 to 0.40)	791	0.24 (0.16 to 0.31)	93	0.37 (0.17 to 0.57)	126	0.36 (0.18 to 0.54)
Total body fat percentage	797	0.31 (0.25 to 0.37)	788	0.25 (0.18 to 0.31)	94	0.35 (0.17 to 0.54)	126	0.38 (0.21 to 0.55)
Total body fat-free mass percentage	797	0.33 (0.27 to 0.39)	788	0.26 (0.19 to 0.32)	94	0.35 (0.17 to 0.54)	126	0.36 (0.20 to 0.53)
Truncal fat percentage	639	0.28 (0.20 to 0.35)	603	0.21 (0.14 to 0.29)	84	0.30 (0.08 to 0.52)	100	0.40 (0.22 to 0.59)
Non-truncal fat percentage	639	0.29 (0.25 to 0.39)	603	0.23 (0.17 to 0.32)	84	0.26 (0.14 to 0.51)	100	0.33 (0.09 to 0.51)

Sample weights not applied to data. Reduced sample size for truncal fat mass due to 2-limb BIA scales used at Home Visits not generating these data. Sample restricted to children and parents whose relationship was biological child/parent (n = 20 child-parent pairs with body composition data available were excluded).

*UK 90 BMI z-score for children and raw BMI for parents

[#]UK 90 waist circumference z-score for children and raw waist circumference for parents

[†]Adjusted for child and parent age, and disadvantage index.

BMI: body mass index; CDC: Centers for Disease Control; CI: confidence interval; SD: standard deviation; UK90: British 1990 Growth Reference.