

Table 1 Interobserver variation of ultrasound cartilage thickness measurements in large and small joints in 74 healthy children

	Systematic Variation ¹ (between observer I and observer II)		Random Variation ²		Total variation
	Mean difference ³ in mm	<i>p</i>	SD* "within child" in mm	SD ^o "within joint" in mm	SD (CV ⁴) in mm
Knee	0.26	<.0001	0.21	0.24	0.32 (9.5%)
Ankle	-0.14	<.0001	0.07	0.18	0.19 (19.9%)
Wrist	0.08	0.172	0.24	0.35	0.43 (26.9%)
MCP	-0.11	<.0001	0.06	0.10	0.12 (11.9%)
PIP	-0.09	<.0001	0.08	0.10	0.13 (18.2%)

¹Systematic variation = whether one observer has a tendency to measure thicker or thinner cartilage thickness) ²Random variation (e.g. biological variation within children) ³Difference between cartilage thickness measurement observer I and observer II in mm. *SD=Standard deviation within child, refers to the variation in SD in mm between the right and left extremity ^oSD=Standard deviation within joint, refers to the SD in mm between observers within the same side extremity ⁴Coefficient of variation is calculated from the relative differences of measurements (CV=SD/mean x 100)