

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

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

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