RELIABILITY OF SPINAL RANGE OF MOTION IN HEALTHY BOYS USING A SKIN-SURFACE DEVICE.

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ABSTRACT

OBJECTIVE: The purpose of this study was to examine the interrater and intrarater reliability of spinal extension and flexion measurements using a skin-surface (Spinal Mouse; Idiag, Voletswil, Switzerland) instrument.

METHODS: Spinal curvature was measured during standing, full flexion, and full extension in 81 healthy children (10.6 +/- 1.7 years) by 3 raters on 2 separate occasions. Intraclass correlation coefficients (ICCs) and standard errors of measurement were used to examine between-day and interrater reliability for thoracic, lumbar, and hip range of motion.

RESULTS: The intrarater ICCs ranged from 0.61 to 0.96, and the interrater ICCs ranged from 0.70 to 0.93. The standard error of measurement ranged from 0.61 degrees to 13.18 degrees.

CONCLUSION: Evaluation of spinal range of motion measures in children using the Spinal Mouse demonstrates fair to high reliability.

PMID: 18984239 [PubMed - indexed for MEDLINE]