

Development, validity and reliability of a new pressure air biofeedback device (PAB) for measuring isometric extension strength of the lumbar spine

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pressure output (mb) and calibrated weights (kg). In addition, Pearson correlation calculations showed a significant relationship between PAB[®] force (mb) and EMG activity (μV) for all subjects (n = 42) examined, as well as for the asymptomatic group (n = 24). No relationship was detected for the LBP group (n = 18). In terms of lumbar extension strength, we found that asymptomatic subjects were significantly stronger than LBP subjects. The results of the PAB[®] test differentiated between LBP and asymptomatic subject's lumbar isometric extension strength without any risk to the subjects and also indicate that the lumbar isometric extension test with the new PAB[®] device is reliable and valid.

Keywords: PAB[®] air pressure isometric strength low back pain (LBP) reliability

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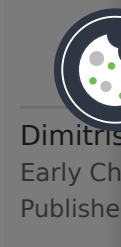
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