

Lifting belts: a psychophysical analysis

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The literature supporting the use of lifting belts has not demonstrated consistent trends. It was hypothesized that if lifting belts provide a biomechanical or motivational advantage then the participants in a psychophysical lift test should select a higher maximum acceptable weight of lift (MAWL). Eleven male and five female subjects participated in one session with a lifting belt and one session without a belt. The order of the belt sessions was counterbalanced. Each session was comprised of two psychophysical lifting tests varying only in the initial weight of the box. Repeated measures ANOVA showed no difference between the MAWL between belt sessions or between the two tests within a given session. Following the test, subjective evaluations of the belt were measured via a questionnaire. The psychophysical test results showed no change as a function of the belt condition. Thus, these results do not support the hypothesis that lifting belts increase trunk strength or motivate individuals to select a greater MAWL. Therefore, it must be concluded that belts do not offer a biomechanical or motivational advantage to the user.