

The Effects of Gluteal Squeezes Compared to Bilateral Bridges on Hip Strength, Power, and Endurance

Aaron Stapleton, Jessica Turley, Kyle Waits, John Zirkle*

Faculty: BJ Lehecka

Department of Physical Therapy, College of Health Sciences

BACKGROUND: Hip extension weakness is correlated with low back, hip, and knee pathology. Bilateral gluteal bridges are common clinical exercises used to increase hip extension strength. There is little research regarding the effect of isometric gluteal squeezes, a more convenient hip exercise, on strength and functional outcomes.

PURPOSE: The purpose of this study was to identify the effects of gluteal squeezes on hip extension strength, gluteal girth, vertical jump, broad jump, and single-leg bridge endurance compared to bilateral gluteal bridging.

METHODS: Thirty-two healthy university students aged 18-35 years were randomly assigned to either gluteal squeezes or bilateral bridges. Subjects were tested at baseline and after eight weeks of training. Participants' hip extension strength, gluteal girth, vertical jump, broad jump, and single-leg bridge endurance were tested.

RESULTS: No statistical significance differences were found between the bridge and squeeze groups after eight weeks of training. Both groups significantly improved hip extension strength ($p < 0.05$) and approached statistical significance for the endurance task. The squeeze group significantly increased gluteal girth at the level of the greater trochanter ($p < 0.05$). No change occurred for either jump task in either group.

CONCLUSION: Gluteal squeezes proved to be as effective as bilateral bridges for the increasing hip extension strength. Gluteal squeezes significantly increased girth at the level of the greater trochanter. While not statistically significant, both groups improved single-leg bridge endurance. These results provide clinicians with reason to prescribe gluteal squeezes to increase hip extension strength instead of the less convenient bilateral bridge exercise.