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## Correlations and normative data of gluteal strength and endurance

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The purpose of this study was to gather normative data and correlations for measures of gluteal strength, power, and endurance for 18-35 year-old healthy adults. Clinicians can use this data as guidelines for enhanced evaluation of gluteal function. Normative data found using measures of gluteal strength, power, and endurance can be used to better predict a safe return to a patient's prior level of function. It is hypothesized that low to moderate correlations will be found between activities requiring separate fiber types, more specifically, between the endurance and power activities. Currently there is little research regarding correlations between gluteal strength and endurance, and how the addition of gluteal endurance training to gluteal strengthening during the rehabilitative process will provide increased readiness for return to activity. Forty males and females aged 18-35 with no history of surgery in the last year, no history of lower extremity or back pathology, and without current pregnancy were chosen from a sample of convenience. Gluteal strength was measured dynamometry and maximal isometric contractions, gluteal power was measured via vertical jump and the Vertec jump tool, and gluteal endurance was measured using repeated single leg bridging. The results of this study confirm the hypothesis that low to moderate correlations exist between endurance and power or strength activities of the gluteal muscles. This study suggests gluteal endurance training in addition to power and strength training may provide a more comprehensive prevention strategy to minimize the risk of injury in healthy subjects.

### Biography

B J Lehecka is an Assistant Professor at Wichita State University in Wichita, KS. He is the Director of Wichita Running, a clinic for runners and sports teams. His research is focused on gluteal endurance measures and their relationship to running-related injuries. He is a PhD Candidate in Orthopedic and Sports Science at Rocky Mountain University of Health Professions. In addition to university lecturing, he has been an invited speaker for 20 continuing education conference lectures. He has published multiple articles relevant to sports physical therapy.

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