

## Bone Mineral Density and Body Composition of Division III NCAA Athletes at Southwestern University

GREY D. WAGNER & COLE G. PECK

Laboratory of Kinesiology; Department of Kinesiology; Southwestern University;  
Georgetown, TX

---

*Category: Undergraduate*

*Advisor / Mentor: Merritt, Edward (merritte@southwestern.edu)*

### ABSTRACT

**PURPOSE:** To examine the variation of bone mineral density and body composition between athletes of different sports at Southwestern University. **METHODS:** One hundred and three Division III NCAA athletes at Southwestern University came to the kinesiology lab in a single session to complete a full body DEXA scan using a GE Lunar Prodigy DEXA Bone Densitometer. The athletes' bone mineral density, body composition data and health history questionnaire were collected. **RESULTS:** There was a significant difference of t-scores among the men's sports means ( $F(6,41) = 5.599, p < 0.001$ ). There was a significant difference of t-scores among the women's sports means ( $F(6, 34) = 2.879, p = 0.022$ ). There was no significant difference of % body fat among the men's sports means ( $F(6,42) = 1.787, p = 0.125$ ). There was no significant difference of % body fat among the women's sports means ( $F(6,35) = 1.301, p = 0.283$ ). **CONCLUSION:** This study found a significant difference of T-scores between sports but not % body fat.