

Abstract Submitted  
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**Variation in Ultrasound Attenuation in Relaxed and Contracted Muscle Tissue**<sup>1</sup> THEA KEPPLER, MICHELLE MILNE, St. Mary's College of Maryland — The purpose of this study is to measure the attenuation of ultrasound in contracted and relaxed states in rat skeletal muscle. Ultrasonic waves are sound waves that have a frequency above twenty thousand Hertz (higher than the audible range). Attenuation, the loss of energy in a sound wave as it travels through a material, is an intrinsic property of that material. Therefore, it can be used to characterize tissues and has the potential to help physicians diagnose muscle abnormalities. Results indicate that ultrasonic waves attenuate at a higher rate in relaxed tissue versus contracted tissue. These results could have implications for ultrasound imaging of patients in the clinic.

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