Assessment of Z Joints Using Sound and Vibration Recordings and Ultrasound Imaging of the Spine Before, During, and After Spinal Manipulation

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The goal of this project is to assess the lumbar Z joints before during and after SMT using the non-invasive methods of ultrasound imaging, along with methods to record acoustic (using a microphone) and vibration (using accelerometry) data. The investigators hypothesize that the combined use of these data collection instruments will provide new, less expensive means to assess spinal pathology (e.g., degeneration) as well as cavitation and gapping of the Z joints.

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