

## Public Abstract

First Name: Kyle

Last Name: Gibson

Advisor's First Name: Alex

Advisors Last Name: Waigandt

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Title: Pain and Function in Knee Osteoarthritis:

Are They Related to Local Intrinsic Factors?

**PURPOSE:** Knee osteoarthritis (OA) is one of the most common conditions affecting the quality of life of older adults. Pain and decrease in function are common problems associated with the disease. The study of knee OA is made difficult by the inability of researchers to effectively characterize the subject pool by factors that impact the mechanical environment in which the knee functions. These local intrinsic factors are difficult to measure because of high cost, the need for special equipment or training, and the length of time necessary to collect the data. Furthermore, there has been little research to guide investigators when deciding what factors might be important to include in their studies. The purpose of this study was to make an evidence based recommendation of whether specific local intrinsic factors should be included in the future study of knee OA. **METHOD:** Forty-six people with knee OA were examined and measures of function, pain and the local intrinsic factors Varus/Valgus Alignment, A/P Laxity, Proprioception, Knee Extension Strength, Knee Flexion Strength, and Knee ROM were obtained. **RESULTS:** Factors were recommended for inclusion in future research based on their relationship with measures of function and pain. Varus/Valgus Alignment, A/P Laxity, Knee Extension Strength, and Knee ROM were found to have both a relationship to function or pain, and play an important, unique role in the prediction of function or pain. **CONCLUSION AND IMPLICATIONS:** Findings from this study suggest data regarding Varus/Valgus Alignment, A/P Laxity, Knee Extension Strength, and Knee ROM should be collected in future study of knee OA. These data could ultimately assist researchers in the production of more individualized and effective exercise programs for knee OA.