specialties





Dr. Jeffrey S. Coster Dr. Kenneth R. Wilhelm Dr. Jeffrey L. Graziano Dr. Joonhyun Yoon Dr. Monique Rolle 703-379-0700 (office)

BIOMECHANICAL EVALUATION

A biomechanical evaluation is an examination of the entire kinetic chain in which the various angular relationships, ranges of motion, and dynamic interactions are carefully measured and recorded. Morphological measurements are taken of limb length, pelvic alignment, and hip, knee, ankle, and foot joint range of motion. This data may be taken in various sequences to mimic positional and dynamic influences of walking or running. There are normal parameters for these relationships and where alignment is incorrect, a prescription is calculated from the objective and subjective information obtained, in order to produce functional custom orthotics. Assessment is also made of the muscular of the feet, legs and hips. Biomechanical abnormalities in these areas often produce dynamic imbalances which lead to fatigue and injury. Identification of the problem site can be used to develop strengthening and stretching programs to correct the imbalance and significantly improve performance.