

Expertise



Nicholas Stergiou, Ph.D., is the director of the Biomechanics Research Building. He received his doctorate at the University of Oregon. While at Oregon, Dr. Stergiou conducted a number of studies on the biomechanics of human movement, including strength and balance. His work investigating balance in infant and toddler balance development has established him as an expert in balance.

Dr. Stergiou reviews all reports on muscular strength and endurance as well as on balance. He works closely with all of our technicians to create custom reports for each of our clients.



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Muscular Strength/ Endurance and Balance Testing



Muscle Strength and Endurance Testing

The goal of this testing is to give you a safe and accurate assessment of muscular strength and endurance of a particular set of muscles. During the appointment, you will perform maximal muscle contractions on a specialized machine that can isolate a particular joint for testing. You will perform a set of 5 repetitions at a low speed for strength testing and 25 repetitions at a faster speed for endurance testing. Testing can be performed on ankle, knee, hip, wrist, elbow, and shoulder joints.

This testing can reveal any strength deficits or any muscle imbalances between right and left sides or between the front and the back of your joint or between your values and existing normative values. If a strength deficiency or muscle imbalance is present, you are at a risk for injury. You will be provided a report outlining any deficiencies as well as activities or exercises that can be done to fix these imbalances.



Balance Testing

Balance is an essential part of life that allows you to perform activities of daily living without falling down. Balance is maintained through the integration of three different sensory systems: the somatosensory system (feel), the visual system (sight), and the vestibular system (inner ear). The Neurocom Balance Manager is a state-of-the-art balance measuring device that will allow us to assess how the different sensory systems are affecting your balance.

During your session you will stand on a force platform while fully secured in a safety harness. You will go through a series of tests where the machine will test these three different systems. This will allow us to assess how your body responds to a number of different situations that may throw you off balance. You will be provided with a balance score as well as see how your balance is within each of the three sensory systems. Activities or exercises to counteract deficiencies in a system will be provided.

Cost

The cost for a muscle strength and endurance evaluation is \$90 dollars per joint. The cost for a balance test is \$75 dollars.

The money earned from these tests are used to assist the NBCF graduate and undergraduate students to participate in national meetings and present their research, gaining invaluable scientific experiences.

**Cost:
Strength/Endurance
is \$90 per joint
Balance test is \$75**



**To schedule an appointment
or for more information, call:
(402) 554-3225**