BIOMOTION Research Laboratory

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**Lab Members 2012-2013:**
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The mission of the Biomotion Research Laboratory is to investigate neuromuscular and biomechanical mechanisms, the efficacy of rehabilitation, and associated clinical outcomes of upper extremity musculoskeletal disorders related to aging and repetitive overuse during work or sport.

The 400 sq. ft. dedicated research lab space, located within 404 Robinson Hall at Northeastern University, has state of the art equipment and dedicated space for motion analysis, ultrasound imaging, patient examination, computer workstations for processing and analysis, and a conference table. The lab pursues collaborative research in the fields of biomedical engineering, orthopedics, rehabilitation medicine, motor control and human movement science to optimize patient outcomes, participation, and health related quality of life.

**Research Equipment**
- Ultrasound Imaging unit: GE LogiQ e portable diagnostic ultrasound unit with 12L-RS linear array transducer
- Motion Analysis: Ascension TRAKSTAR electromagnetic motion analysis unit, six degrees of freedom, 8-channel system.
- Electromyography (EMG) System: Noraxon 8 channel unit with surface and indwelling capabilities sensors
- Motion Monitor System: records, synchronizes and analyzes kinematic & EMG data
- Data reduction and analysis software: Matlab, SPSS, SAS
- Force Transducer: Hand Held Dynamometer