

Biomechanical **Testing Facility**



1200 Sq. Ft. BSL-2 Facility

Mechanical Testing Equipment

- 2 MTS Bionix 858 Axial/Torsional Test Frames
- · AMTI Multi-Ais Load Cells
- Custom C-Arm Foot Pedal Controlled by MTS
- Optotrak® Certus, Polhemus Liberty™, and Motions Analysis® 3D motion tracking
- Tekscan® Tactile Pressure Measurement System
- MTS® Tri Axis Compression Clamps
- MTS® Vise Grips
- · Finger Flexion Jig
- · Compression/Shear Jig
- · Pelvis Single Leg Stance Jig
- · Compression Jib
- · 4 Point Bend Fixture
- Pure Moment Testing System

Tools/Prep Equipment

- · Dissection Band Saw
- · Stryker System 6 Surgical Power
- Drill Press
- Jet Milling Machine
- JET Milling Machine
- · Belt Sander
- · Grinder/Wire Wheel
- · Potting Fixture
- · Metal Cutting Band Saw
- · Adjustable Pivots

Imaging Equipment

- Philips BV Pulsera 3D C-Arm
- · C-arm Compatible Table
- · Hologic® QDR4500 DEXA Scanner
- Quantitative CT
- MRI

High Quality Engineering and Research Support

The Biomechanical Testing Facility (BTF) works with academic and industry partners to conduct high quality research that leads to advancements in basic scientific knowledge and clinical applications in orthopaedics. Our success stems from strong collaborations between our biomechanical engineers and orthopaedic surgeons. We specialize in experimental biomechanics for all orthopaedic subspecialties, with an emphasis on in-vitro biomechanical testing.

A wide range of services are offered, ranging from test protocol execution to research study design and academic publication. The BTF can provide the technical expertise needed to develop and evaluate novel orthopaedic technologies and surgical techniques. Our team also has extensive experience in creating custom test protocols for cross-product comparisons of medical devices.

Standard Testing Services

Material property characterization, failure analysis, multi-axial testing, 3D motion tracking, medical imaging, and ASTM, and ISO device testing

Professional Consultation

Engineering support and custom testing protocol design for the evaluation of musculoskeletal devices and implants

Connect with OTI







Orthopaedic Trauma Institute

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