

Materials List for:

# Proximal Cadaveric Femur Preparation for Fracture Strength Testing and Quantitative CT-based Finite Element Analysis

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## Materials

Name	Company	Catalog Number	Comments
CT potting container and scanning fixture	Internally manufactured	N/A	Custom designed and manufactured
CT scanner	Siemens	Somatom Definition scanner (Siemens, Malvern, PA)	CT scanning equipment
Quantitative CT Phantom	Midways Inc, San Francisco, CA	Model 3 CT calibration Phantom	Used for obtaining BMD values from Hounsfield units in the CT image
Dual Energy X-ray Absorptiometry scanner	General Electric	N/A	GE Lunar iDXA scanner for bone health or any similar BMD scanners
Hygienic Orthodontic Resin (PMMA)	Patterson Dental Supply	H02252	Controlled substance and can be purchased with proper approval
Freezer	Kenmore	N/A	This is a -20 °C storage for bones
X-ray scanner	General Electric	46-270615P1	X-ray imaging equipment.
X-ray films	Kodak	N/A	Used to display x-ray images
X-ray developer	Kodak X-Omatic	M35A X-OMAT	Used for developing X-ray images
X-ray Cassette	Kodak X-Omatic	N/A	Used for holding x-ray films
5-pound Rice Bags	Great Value	N/A	Used for mimicking soft tissue during the DXA scanning process
Physiologic Saline (0.9% Sodium Chloride)	Baxter	NDC 0338-0048-04	Used for keeping samples hydrated
Scalpels and scrapers	Bard-Parker	N/A	Used to clean the bone from soft tissue
Cast cutter	Stryker	810-BD001	Used to cut femoral shaft
Drilling machine	Bosch	N/A	Used to drill the femoral shaft
Fume Hood	Hamilton	70532	Used for ventilation when using making PMMA