# *Framingham Osteoporosis Study*

# *Generation 3 Cohort Exam 2 Whole Body Dataset*

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This dataset includes whole body and regional dual x-ray absorptiometry (DXA) body composition data collected at the **Framingham Heart Study (FHS) Generation 3 Cohort** Examination 2 (2008-20011). This dataset contains information on the first 2,885 participants seen from **May 2008** through **September 2010**.

Whole body and regional measures of fat mass, lean mass, and bone mineral content (BMC) and density (BMD) were obtained with a *GE Lunar Prodigy* fan beam densitometer (GE Healthcare, *Inc.*), using standard positioning recommended by the manufacturer. Scans were reviewed weekly by the study coordinator. Any scan of questionable validity due to either anatomic positioning or scan interpretation was adjudicated by the Principal Investigator.

Participants were asked to lie flat on the table, with arms by their side. A strap was placed around the ankles to keep the legs together. All metal was removed as possible. For participants too large to fit the within the dimensions of the scanning field, a hemi scan was performed (45.6% of participants had a hemi-scan). For the majority of participants with a hemi-scan, the right side of the subject was scanned and the machine imputed the left side measures to create the whole body.

Following the recommendations of the International Society for Clinical Densitometry, a whole body reliability assessment of the *Prodigy* machine was conducted. Fifteen volunteers had whole body scans three times, with repositioning after each scan. Each individual scan was analyzed, with no review of the previously performed analyses. The coefficients of variation (CV) for the *Prodigy* device were 1.3% for total body fat mass, 1.4% for total body BMD and 0.9% for total body lean mass.