One method for assessing osteoporotic fracture risk is with Quantitative Ultrasound or QUS. QUS systems use ultrasound to measure the acoustic properties of the heel. Primarily QUS systems measure the Broadband Ultrasound Attenuation (BUA) and Speed of Sound (SOS) of the os calcis. The physician can utilize these values, along with other risk factors, to identify patients in need of more extensive screening as well as monitoring disease progress and response to therapy.

The Model 063 QUS Phantoms have a known SOS and provide a linear response of BUA in the diagnostic frequency range for assessment of bone quality. Two different models are available. The Model 06301 represents Normal Heel and the Model 06302 represents Osteoporotic Heel. These phantoms provide a standard of reference that can be integrated into a quality assurance program for various QUS Systems.

Each phantom is provided with a certificate of compliance. The phantoms come in a standard rectangular shape but customized shapes are available by quotation. For Hologic systems a special wedge adapter, Model 06303, is available for purchase.

**Features**

- Linear response in the diagnostic frequency range
- Can be molded into any shape (custom manufacturing)
- Mimics calcaneus bone
- Proven construction methodology
- Known material properties permit phantom to be used as a calibration tool with various QUS systems

Tissue Simulation & Phantom Technology

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QUANTITATIVE ULTRASOUND PHANTOM

**Model 063**

**Specifications**

<table>
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<tr>
<th>Model No.</th>
<th>Product Description</th>
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<tr>
<td>06301</td>
<td>Quantitative Ultrasound Phantom Normal Heel</td>
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<tr>
<td>06302</td>
<td>Quantitative Ultrasound Phantom Osteoporotic Heel</td>
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<tr>
<td>06303</td>
<td>Wedge Adapter for Quantitative Ultrasound Phantom (for Hologic Systems)</td>
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</table>

**Model 06301**
- Dimensions: 6 cm x 3.6 cm x 7 cm
- Weight: 1 lbs

**Acoustic Properties**
- BUA, dB/MHz: 75
- Speed of Sound: 1560 m/s
- BUA vs. Temperature (dB/MHz per °C): +0.86
- SOS vs. Temperature (m/s per °C): -11.6

**Phantom Includes**
- Quantitative Ultrasound Phantom (Normal Heel)
- Certificate of Compliance
- User Guide
- 48-Month Warranty

**Optional Accessory**
- Wedge Adapter for Quantitative Ultrasound Phantom (for Hologic Systems)

**Model 06302**
- Dimensions: 6 cm x 3.6 cm x 7 cm
- Weight: 1 lbs

**Acoustic Properties**
- BUA, dB/MHz: 50
- Speed of Sound: 1520 m/s
- BUA vs. Temperature (dB/MHz per °C): -0.50
- SOS vs. Temperature (m/s per °C): -7.6

**Phantom Includes**
- Quantitative Ultrasound Phantom (Osteoporotic Heel)
- Certificate of Compliance
- User Guide
- 48-Month Warranty

**Optional Accessory**
- Wedge Adapter for Quantitative Ultrasound Phantom (for Hologic Systems)

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