BILATERAL, WEIGHT BEARING CT IMAGING FOR THE KNEES & FEET PLUS HAND & ELBOW

CurveBeam LineUP
FDA 510(K)
CE Marking
The CurveBeam LineUP is an extremity Cone Beam CT scanner that images the weight bearing lower extremities, hand, and elbow.

Cone Beam CT technology captures the entire volume in a single 360-degree orbit. Straightforward kVp choices and fixed mA result in easy operation. High-contrast datasets provide ultra-fine trabecular detail.

High Resolution 3D scans of the extremities permit specialists to assess osseous structures with precision & clarity.

Bilateral, true weight bearing CT scans allow physicians to assess biomechanical spatial relationships and alignment.

The 3D renderings were created in CubeVue, CurveBeam’s custom visualization software.
FITS ANYWHERE
49” x 63” footprint
Self-Shielded
Standard 115 (US)/220 (Int) VAC Outlet

EASY TO OPERATE
Easy entry & positioning
Straightforward kVp choices
Fixed mA

QUICK SCAN TIMES
Less than 25 seconds per Scan

0.3 MM SLICES + X-RAYS
3D Reconstructions, Multi-Planar Slices,
Digitally Reconstructed Radiographs,
X-Rays

DICOM/PACS COMPATIBLE

ULTRA LOW DOSE

MINIMAL MAINTENANCE

STANDARD BILLING
CPT 73200 CT Upper Extremity
CPT 73700 CT Lower Extremity
Total Access to Images

- CubeVue custom viewing software gives specialists powerful visualization tools to optimally view high resolution images.

  - Instant reformatting and re-orientation of MPR Slices and 3D renderings
  
  - Segmentation of individual bones
  
  - Creation of custom MPR slabs
  
  - Measurement with distance and angle tools
  
  - Automatic presentation of Insta-X (Digitally Reconstructed Radiographs) with every scan

  - DRR’s are synthesized x-ray views, mathematically reconstructed from the original CT volume. DRRs represent the actual anatomical sizes and angles with no magnification or distortion, and all standard and/or custom views are created from the original scan, without the need to re-position the patient.
X-Ray Protocols

Ability to capture true digital radiographs accommodates orthopedic workflows.

Optimized Images

CurveBeam's proprietary MAR algorithm detects, isolates and suppresses artefact while also preserving image quality in artefact-free regions.
**Flexible Positioning**

The LineUP is a complete multi-extremity imaging solution.
- Bilateral, weight bearing knee
- Bilateral, weight bearing foot & ankle
- Bilateral, non weight bearing foot & ankle
- Hand and Elbow

**Ultra Low Dose**

<table>
<thead>
<tr>
<th>Technique</th>
<th>Adult (μSv)</th>
<th>Comparable Natural Background Radiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilateral Knee LineUP CT</td>
<td>1.1</td>
<td>3.3 hours</td>
</tr>
<tr>
<td>Bilateral Foot &amp; Ankle LineUP CT</td>
<td>3.2</td>
<td>9.6 hours</td>
</tr>
<tr>
<td>Unilateral Hand LineUP CT</td>
<td>0.5</td>
<td>1.5 hours</td>
</tr>
<tr>
<td>Bilateral Knee LineUP X-Ray</td>
<td>0.04</td>
<td>0.12 hours</td>
</tr>
<tr>
<td>Bilateral Foot LineUP X-Ray</td>
<td>0.04</td>
<td>0.12 hours</td>
</tr>
<tr>
<td>Hand Lateral LineUP X-Ray</td>
<td>0.04</td>
<td>0.12 hours</td>
</tr>
<tr>
<td>Bone Densitometry (DEXA)</td>
<td>1</td>
<td>3 hours</td>
</tr>
<tr>
<td>Extremity X-Ray Radiography</td>
<td>1</td>
<td>3 hours</td>
</tr>
<tr>
<td>Unilateral Foot &amp; Ankle Helical CT</td>
<td>70</td>
<td>8.75 days</td>
</tr>
<tr>
<td>(Siemens CARE Dose)</td>
<td>25</td>
<td>3.13 days</td>
</tr>
</tbody>
</table>

The average person in the U.S. receives an effective dose of about 3000 micro Sieverts (μSv) of radiation per year from naturally occurring radioactive materials and cosmic radiation from outer space.

Sources:
- Ludlow, J. “Hand-wrist, Knee, and Foot-ankle Dosimetry and Image Quality Measurements of a Novel Extremity Imaging Unit Providing CBCT and 2D Imaging Options”. Draft version 1/18/2018
- RSNA; Radiologyinfo.org/en/info.cfm?pg=safety-xray
CurveBeam designs and manufactures Cone Beam CT imaging equipment for the orthopedic and podiatric specialties. CurveBeam was founded in 2009 and is privately owned and operated. CurveBeam’s corporate office is located in Hatfield, Pennsylvania, USA. All CurveBeam systems are designed and manufactured in the USA. CurveBeam’s Europe office is located in London, United Kingdom.

The core team behind CurveBeam developed and pioneered the first commercially viable Cone Beam CT imaging systems for the dental/maxillofacial specialties starting in 2003.

In 2012, CurveBeam introduced the pedCAT, a bilateral weight bearing CT imaging system for the foot & ankle.

In 2017, CurveBeam’s InReach system, a multi-extremity CT optimized for hand, wrist & elbow imaging, was cleared by the FDA.
About CurveBeam

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Bilateral Weight Bearing CT Imaging