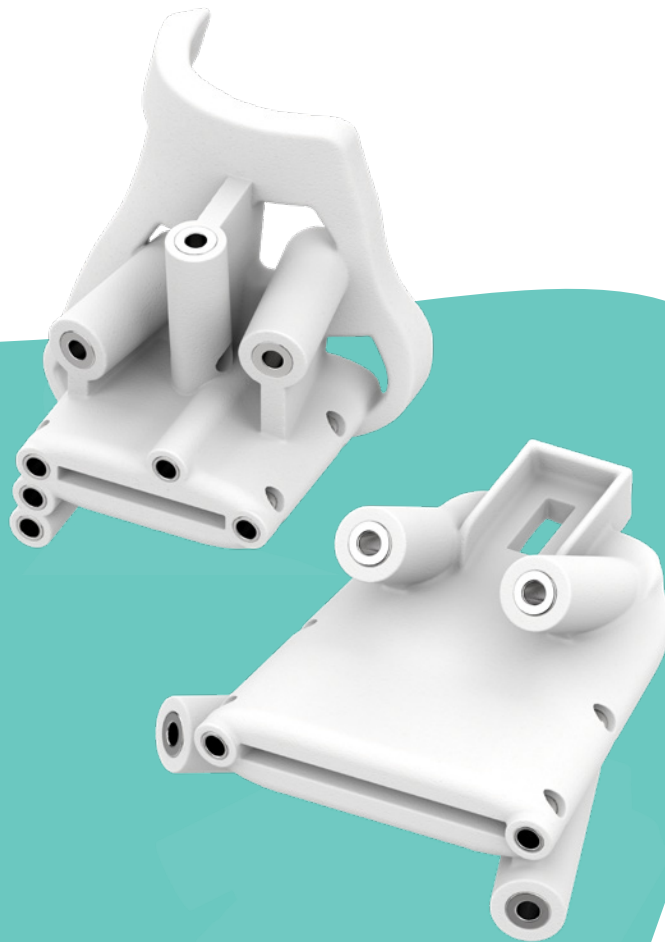




TOTAL ANKLE
Patient-Matched Guides

Scan Protocol

Simulated Weight-Bearing CT



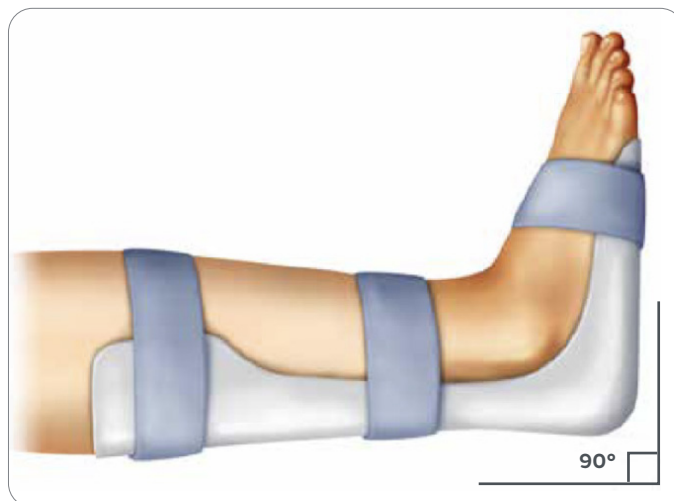
Scan protocol

Patient requirements

- Patients need to be in a supine position.
- Using brace, position the patient's foot in a neutral position (90° to the leg). If not possible, up to 25° from neutral is acceptable.
- CT scan must be less than 6 months before the surgery date.
- Patient must not move during the scan.
- Do not use a contrasting agent.

Note: Patients with metallic or contralateral implants may cause an image artifact and obscure part of the scan. Elevation of the contralateral limb is preferred to reduce metal artifact scattering.

Simulated Weight-Bearing



Scan output requirements

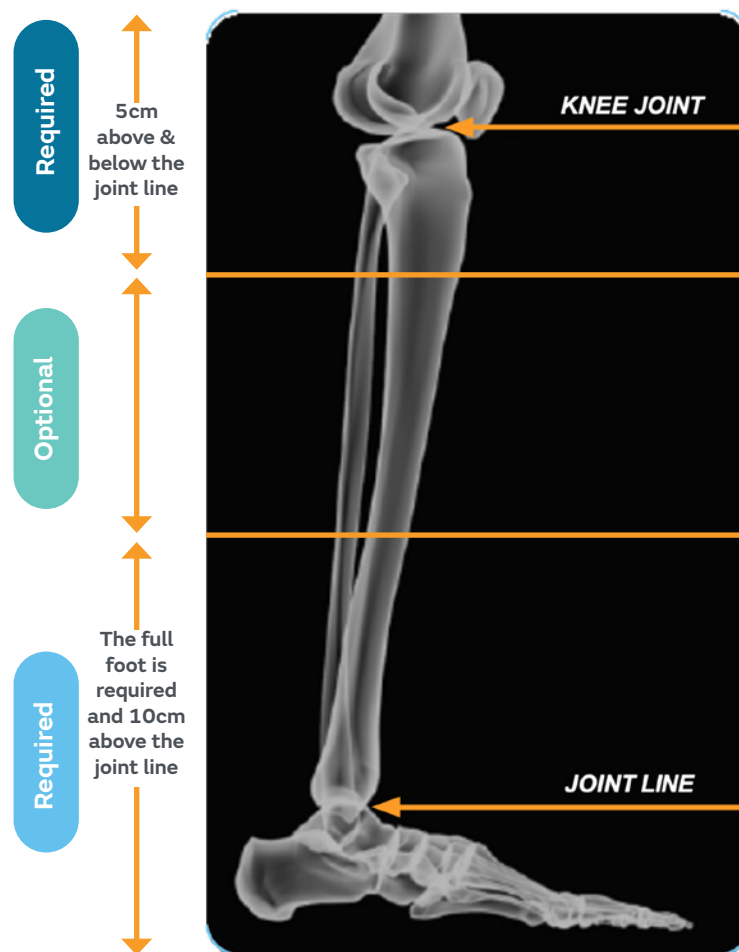
The scan must encompass the entire lower leg, including knee and the entire foot (ball of the foot, toes, and heel).

- The scan must include a minimum of 5cm above and below the knee joint
- The scan must come at least 10cm above the ankle joint through the entire foot
- Maintain a single coordinate system for both the knee and foot scan

Important: Failure to include the full view of the metatarsals, a complete ankle scan, and complete knee scan will require the patient to return for new CT scan.

Note: Include 5cm above and a minimum of 5cm below the knee joint in the scan. If desired, once the scan is 10cm above the ankle joint, the slice thickness can be adjusted to a larger slice thickness/increment (5mm maximum). This scan must be in the same coordinate system as the ankle scan.

Note: One single scan from the bottom of the foot through the knee is also acceptable.



Scan parameters

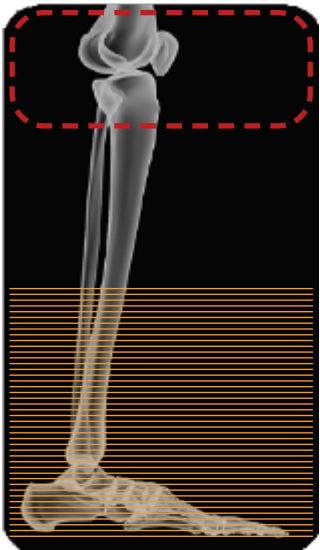
Parameter	Recommended
Modality	CT
Mode	Helical, Axial, or Cone Beam
Algorithm	Soft Tissue Recon if available. Bone or Standard acceptable
Gantry Tilt	0°

Parameter	Recommended
Pixel Size	0.8mm or Less
Ankle Slice Thickness	1.25mm or Less
Knee Slice Thickness	5mm or Less

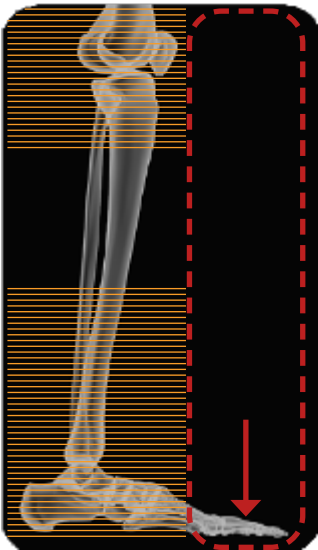
Common scan errors

The following images demonstrate the most common scan errors that will require re-scanning:

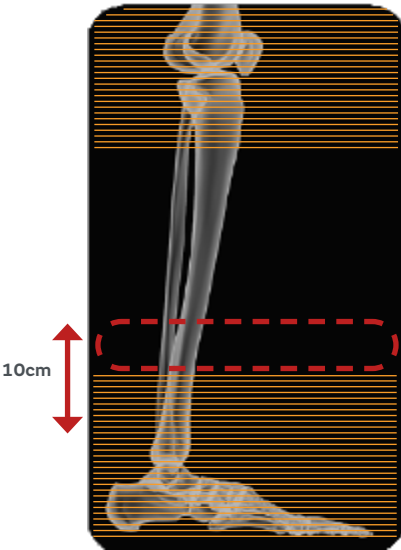
 Indicates region missing from scan



Failure to include knee



Failure to scan the entirety of the foot



Failure to scan 10cm above the ankle joint

Optional weight-bearing X-rays

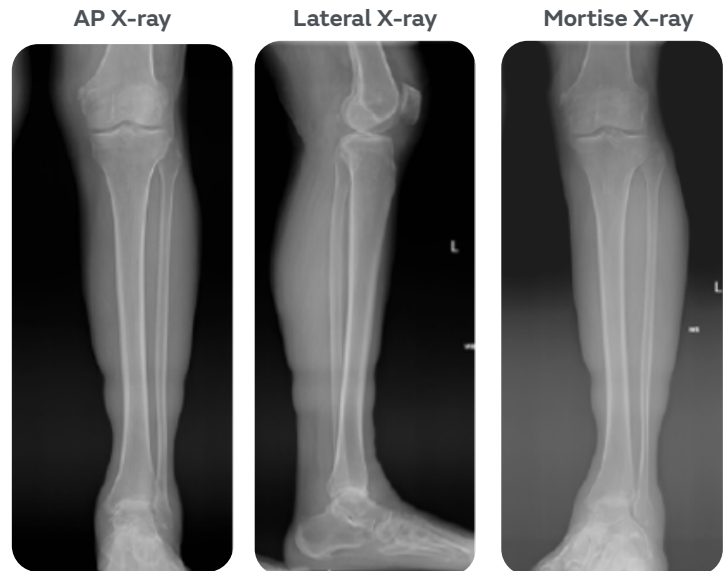
Additional X-rays are recommended to accompany non-weight-bearing CT scans.

Recommended weight-bearing X-rays to provide:

- AP X-ray from the ground to 5cm above the knee joint.
- Lateral X-ray from the ground to 5cm above the knee joint.
- Mortise X-ray from the ground to 5cm above the knee joint.

Optional X-rays to provide

- Stress X-rays of the medial and lateral ligaments (talar tilt X-rays).
- Maximum plantarflexion and dorsiflexion X-rays.



How to upload my scans

Visit smith-nephew.enhatch.com

- You can also send us your scans on a CD or DVD in a DICOM uncompressed format

Attn: Data Import
5381 South Alkire Circle
Littleton, CO 80127, USA

Please include the following information:

- Patient Name
- Surgeon
- Surgery Date
- Case Type
- Case Number

If you have any issues, please contact 3D Systems at 1-844-643-1001.



To contact 3D Systems, please call 1-844-643-1001 to speak to a representative

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Radiation safety resources

- www.fda.gov/radiation-emitting-products/medical-x-ray-imaging/computed-tomography-ct
- www.imagewisely.org/Imaging-Modalities/Computed-Tomography