# VANTAGE

## **CT Scan Protocol:**

Vantage Ankle® PSI and ExactechGPS® Ankle

## Scan Setting Requirements

File Format: Uncompressed DICOM

Scan/Slice Spacing: 1.25mm or smaller

Pixel Size: 0.8mm pixel size or smaller

#### Tilt: O-degree tilt

Please ensure a gantry tilt is not used during image acquisition. Also, gantry-tilted images that are post-processed for reorientation are not acceptable. Images cannot be reprocessed to reorient,

so ensure there is no tilt.

#### Algorithm:

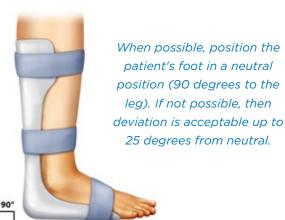
- Toshiba: FC20
- Siemens: H3Os
- GE: Standard (not bone or detail)
- Philips: B

Scan Modes: Helical or axial

## **Patient Requirements**

- Patients need to be in a supine position.
- CT scan must be less than 6 months before the surgery date.
- The 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.



## Metal Artifact Reduction

The recommendations in the section below should be followed ONLY if a patient contains existing metal hardware at the level of the ankle. All preventative measures to both reduce metal artifact in the CT scan and keep the dose low for the patient should be taken.

- Single energy CT is recommended.
- Recommended peak kilovoltage: 140 kVp
- Recommended mA: 330 mA (do not use auto-mA or dose reduction)
- Apply available iterative metal artifact reduction algorithms to the scan. Any necessary pre-scan settings should be followed to allow the use of manufacturer specific MAR algorithms:
  - GE: SmartMAR
  - Siemens: IMAR
  - Toshiba: SEMAR
  - Philips: OMAR



This protocol applies to:

**O** GPS Ankle

⊘ Vantage Ankle PSI

# **CT Protocol with Knee**

(Recommended Scan Protocol)

## Scan Output Requirements

 Scan must encompass entire lower leg, including knee and entire foot (ball of foot, toes and heel)

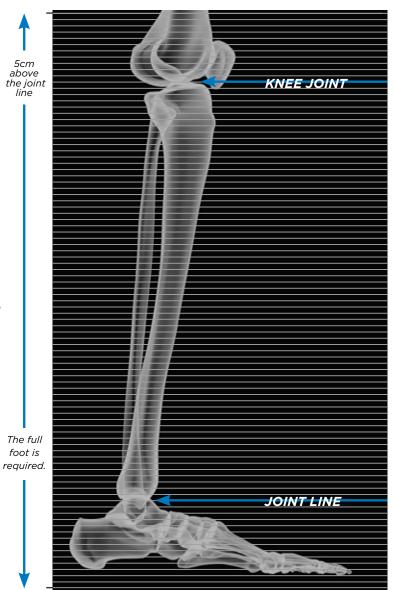
#### Important:

- Failure to include the full view of the metatarsals will require a new CT scan.

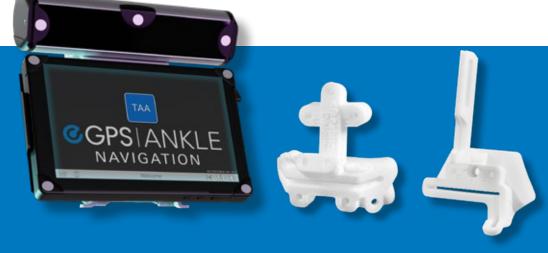
■ Scan must include 5cm above the knee joint

- Failure to include the knee in scan will require the patient to return to the doctor's office for additional imaging, potentially delaying surgery.

#### Scan/Slice Spacing: 1.25mm or less



\*Image shown is not to scale.



Required

This protocol applies to: Orantage Ankle PSI

SPS Ankle

# CT Protocol When Knee is Unavailable

Optional

Required

Is this scan for a Vantage Ankle PSI case? If not, please refer to page 2 for recommended GPS Ankle protocol.

## Scan Output Requirements

 Scan must encompass entire foot (ball of foot, toes and heel)

*Important:* Failure to include the full view of the metatarsals will require a new CT scan.

 Scan must come to at least 10cm above the ankle joint

## X-ray Requirements for Vantage Ankle PSI Only

- Three separate X-rays are required:
  - AP view
  - Lateral view
  - Mortise view
- Bottom of the foot must be visible
- Full metatarsals must be visible
- Knee joint must be visible

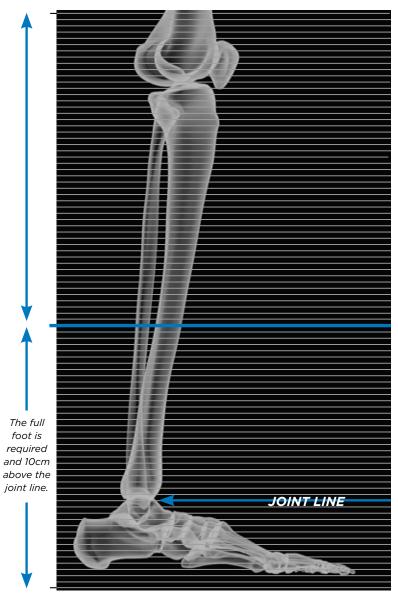
See X-ray samples on the back.

**Note:** CT scans with the knee are needed for GPS Ankle and Vantage Ankle PSI.

- If knee scans are not available for the Vantage Ankle PSI ONLY, please provide the above supplemental X-rays.

- If knee scans are not available, you cannot use GPS Ankle.

#### Scan/Slice Spacing: 1.25mm or less



\*Image shown is not to scale.



## **Questions?**

Vantage Ankle PSI: Contact 3D Systems at 1-844-643-1001.

**GPS Ankle:** 

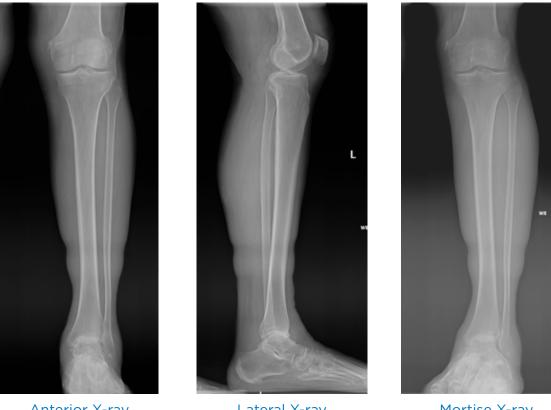
Contact ct.protocol@exac.com.



### Radiation Safety Resources

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

# X-ray Samples for the Vantage Ankle PSI



Anterior X-ray

Lateral X-ray

Mortise X-ray

## 3D SYSTEMS

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

DCD-00085 Rev D

Exactech, as the distributor of Vantage Ankle PSI and GPS Ankle does not practice medicine, and is not responsible for recommending the appropriate surgical technique for use on a particular patient. These guidelines are intended to be solely informational and each surgeon must evaluate the appropriateness of these guidelines based on his or her personal medical training and experience. Prior to use of this system, the surgeon should refer to the product package insert for comprehensive warnings, precautions, indications for use, contraindications, and adverse effects.

The Vantage Ankle PSI is manufactured by 3D Systems and GPS Ankle is manufactured by Blue Ortho. Both products are distributed by Exactech, Inc.

The products discussed herein may be available under different trademarks in different countries. All trademarks used herein are registered or common law trademarks of 3D Systems or Exactech, Inc. This material is intended for the sole use and benefit of the Exactech sales force and physicians. It should not be redistributed, duplicated or disclosed without the express written consent of Exactech, Inc. ©2024 Exactech, Inc. 00-0000616 Rev. E 0624

Exactech is proud to have offices and distributors around the globe. For more information about Exactech products available in your country, please visit www.exac.com



EXACTECH, INC. 2320 NW 66TH COURT

+1 352.377.1140 +1 800.EXACTECH +1 352.378.2617 (FAX)