

# Weight-bearing post-traumatic ankle arthritis

Multitom Rax Real3D<sup>1</sup> clinical case  
Artemed Hospital Munich, Germany



<sup>1</sup>Option  
Results from case studies are not predictive of results in other cases. Results in other cases may vary.



# Clinical background and indication for Multitom Rax Real3D<sup>1</sup> examination

## Patient

Male | Age range 60 - 70 years | BMI range 25 - 30 kg/m<sup>2</sup>

## Anamnesis

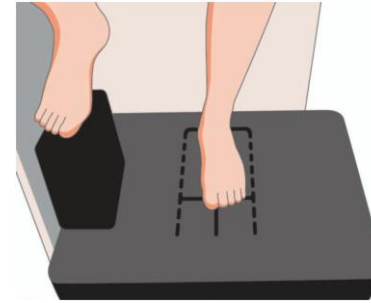
Already known ankle joint arthrosis.

## Indication for Real3D<sup>1</sup> examination

Preoperative planning before ankle joint prosthesis.

Real3D was chosen as the method for the preoperative examinations before ankle prosthesis implantation because the ankle joint can be examined in a natural, weight-loaded position.

## Two options to position the patient



*Let the patient lift the other foot in order to take it out of the field of view.*



*If a natural weight bearing scan is required, let the patient place the second foot close to the other foot.*

The products/features (mentioned herein) are not commercially available in all countries. Their future availability cannot be guaranteed.

<sup>1</sup> Option

# Multitom Rax Real3D<sup>1</sup>

## Settings



### Settings for upright scan with Standard Protocol

<i>Tube voltage</i>	117 kV
<i>Current time product</i>	213 mAs
<i>Dose area product</i>	651 $\mu\text{Gy}\cdot\text{m}^2$
<i>Calculated value for <math>\text{CTDI}_{\text{vol},32}</math></i>	5.2 mGy
<i>Scan time</i>	16 sec
<i>Number of projections</i>	434

### Reconstruction settings for sectional views

<i>Pixel size</i>	0.4 mm
<i>Reconstruction kernel</i>	sharp (equivalent to Br69)
<i>Slice thickness</i>	0.5 mm

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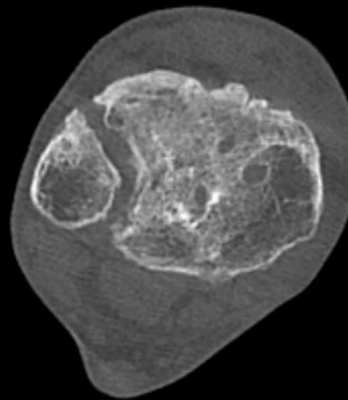
<sup>1</sup> Option

# Multitom Rax Real3D<sup>1</sup>

## Diagnostic findings

The already known valgus osteoarthritis of the ankle can be seen in all views. In addition, there is a bone marrow infarction in the diaphyseal junction of the distal tibia.

The patient was informed about an ankle prosthesis implantation.



*Axial view*



*Coronal view*



*Sagittal view*

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<sup>1</sup> Option



*“We choose Real3D as the modality for the preoperative examinations before ankle prosthesis implantation because we can examine the ankle joint in a natural, weight-loaded position. We believe that this will allow us to make an even better adjustment to the prosthesis.”<sup>1</sup>*

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<sup>1</sup> The statements by Siemens Healthineers customers described herein are based on results that were achieved in the customer’s unique setting. Since there is no “typical” hospital and many variables exist (e.g. hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.



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Dr. Amir Bigdeli is employed by an institution that receives financial support from Siemens Healthineers for collaborations.