

# Subtalar position of both feet under weight-bearing

Multitom Rax Real3D<sup>1</sup> clinical case  
Institute and Polyclinic for Diagnostic and Interventional  
Radiology, University Hospital Carl Gustav Carus,  
Technical University Dresden, Germany



<sup>1</sup> Option

Results from case studies are not predictive of results in other cases. Results in other cases may vary.



Study ID 5aac195

# 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

The patient suffered a Calcaneus-Fracture of the left foot for 12 years with several surgeries and subtalar arthrodesis. Since then, the patient suffers from rotational error of the foot. Especially a supination error bothers him when walking and makes it hard to set the foot straight on the ground. To compensate, the patient has to perform an internal rotation of the whole leg of 20-25°.

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

Subtalar position under weight-bearing condition from both feet to find rotational differences after trauma and surgeries.

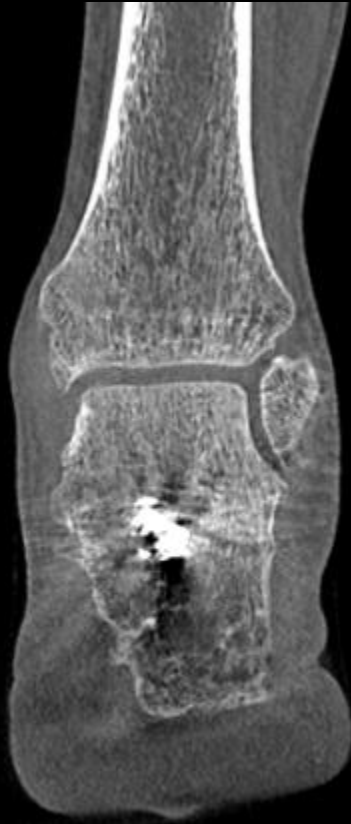
Conventional X-ray examination



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



Study ID 5aac195

## Settings for two upright scans with Metal Protocol (left and right foot)

<i>Tube voltage</i>	117 kV
<i>Current time product</i>	608 mAs (sum of both scans)
<i>Dose area product</i>	2398.5 $\mu\text{Gy}\cdot\text{m}^2$ (sum of both scans)
<i>Calculated value for CTDI<sub>vol,32</sub></i>	19.1 mGy (sum of both scans)
<i>Scan time</i>	16 sec (for one scan)
<i>Number of projections</i>	314 (for one scan)

## 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

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>

## Diagnostic findings

Physiological angle between talus and calcaneus (Kite-Angle) of the left foot 13°.

On the right side the Kite-Angle is reduced by 3°, which supposedly is to compensate an angle deformity of the lower leg. Additional rotational differences were found on the rotation measurements of both legs.

Considering the new information led to a re-evaluation of the existing imaging of the lower leg. This led to the finding of a rotational error on the left lower leg of 25° and a varus-deformity of the knee. The mobile right foot could compensate for some of the changes, whereas the left foot was fixated by subtalar arthrodesis.

For treatment a rotation-correcting osteotomy of the left tibia and fibula was necessary.



*Axial views of both feet*

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

<sup>1</sup> Option



*“The access to cross-sectional imaging in a standing position opens new diagnostic information and therefore better understanding of the underlying pathology.”<sup>1</sup>*

**Eric Langer, MD**

University Hospital Carl Gustav Carus, Technical University Dresden, Germany

<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.





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

Results from case studies are not predictive of results in other cases. Results in other cases may vary.

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