

Pediatric dislocated Bennett fracture

Multitom Rax Real3D¹ Hi-Res clinical case
Children's and Youth Hospital "Auf der Bult" Hannover



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



Study ID 5aad367

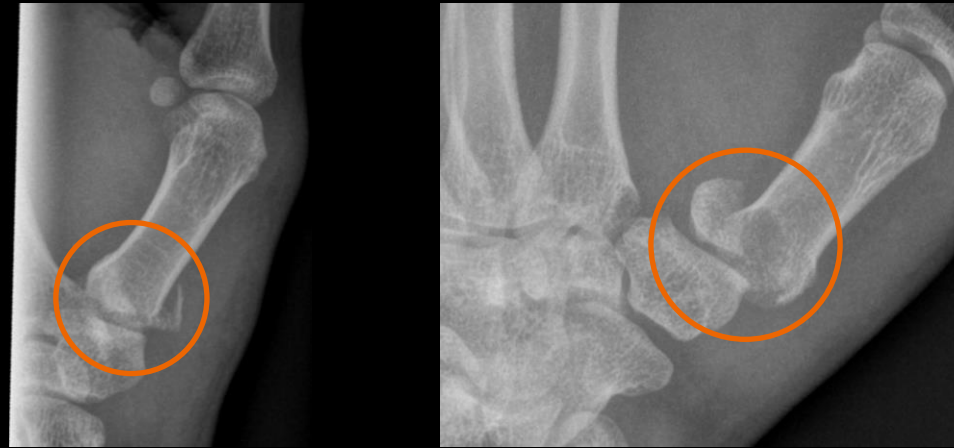
Clinical background and indication for Multitom Rax Real 3D¹ Hi-Res examination

Patient

Male | Age range 15 - 20 years

Anamnesis

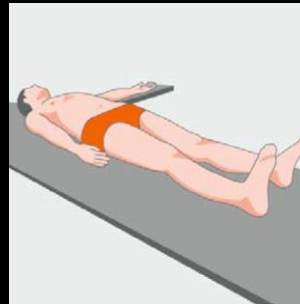
Dislocated Bennett fracture, a fracture of the base of the thumb, visible on conventional X-ray examinations (*see circles on the right*).



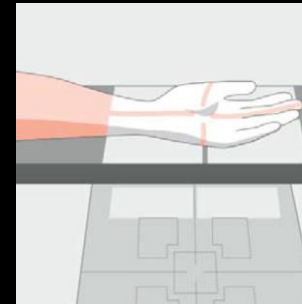
Conventional X-ray examination

Indication for Real 3D¹ examination

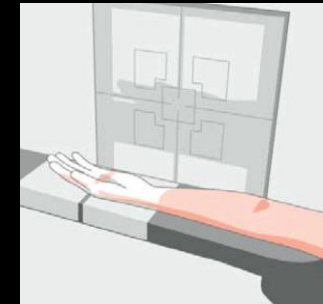
Three-dimensional representation of the fragment position in High-Resolution Real3D before surgical reconstruction needed.



Position the patient with head first for left hand.



The hand must be covered by the light field.

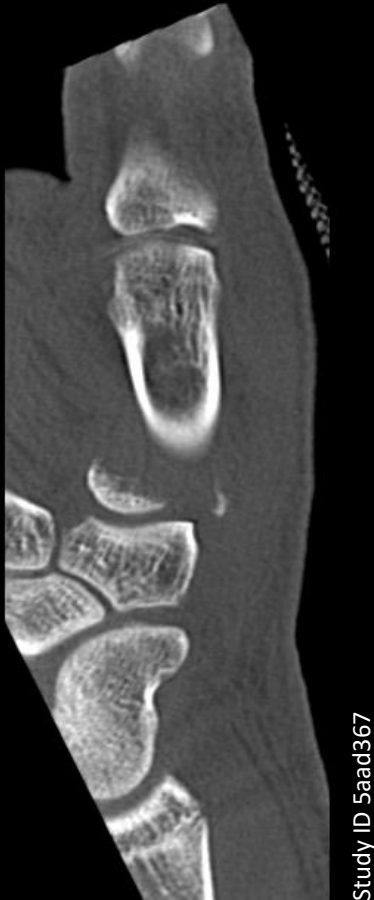


Adapt lateral collimation and adjust table height if necessary.

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

¹ Option

Multitom Rax Real3D¹ Hi-Res Settings



Settings for tableside scan with Standard Protocol

<i>Tube voltage</i>	81 kV
<i>Current time product</i>	197 mAs
<i>Dose area product</i>	61.5 $\mu\text{Gy}\cdot\text{m}^2$
<i>Calculated value for $\text{CTDI}_{\text{vol},32}$</i>	2.0 mGy
<i>Scan time</i>	14 sec
<i>Number of projections</i>	318

Reconstruction settings for sectional views

<i>Pixel size</i>	0.2 mm
<i>Reconstruction kernel</i>	sharp (equivalent to Br69)
<i>Slice thickness</i>	2 mm

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Multitom Rax Real3D¹ Hi-Res

Diagnostic findings

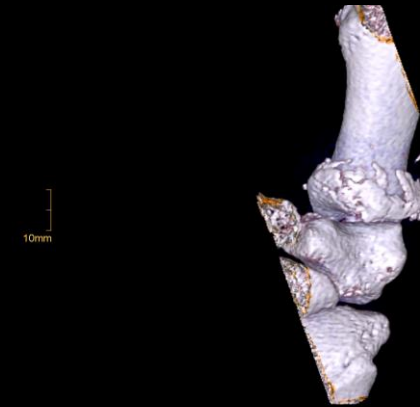
Assessment of the dislocated Bennett fracture on Real3D examination.



MPR view



MPR view animation



VRT view animation

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Postoperative control after intraoperative repositioning and fixation with immobilization for 6 weeks.



Conventional X-ray examinations after surgical repositioning



“Very good overall image impression in Hi-Res scan mode of Real3D with better spatial resolution than conventional multidetector CT examinations.”¹

Jürgen Weidemann, MD

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¹The 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. Jürgen Weidemann is employed by an institution that receives financial support from Siemens Healthineers for collaborations.