

FUJIFILM
Value from Innovation



FCCT Speedia series
Clinical Solution

Experience the quality of advanced clinical solution

Since our release of X-ray film in 1936, FUJIFILM has continued to push the boundaries with its medical imaging. Integrating our advanced diagnostic workstation SYNAPSE 3D with "Image Intelligence™", the image recognition and analysis technologies defined in our experience on medical imaging, FUJIFILM enters the CT imaging market with its FCT Speedia Advanced CT Solutions.

The first CT system in FUJIFILM's lineup with unique reconstruction algorithms provides precise visualization in diagnostics and surgery simulations as well as enabling a smooth workflow and improved dose management to reduce the stress and impact on users and patients.

FCT Speedia, advanced CT offering high level solutions without compromise.



Open & Compact CT

FCT Speedia



Advanced Clinical Workstation

SYNAPSE®
3D





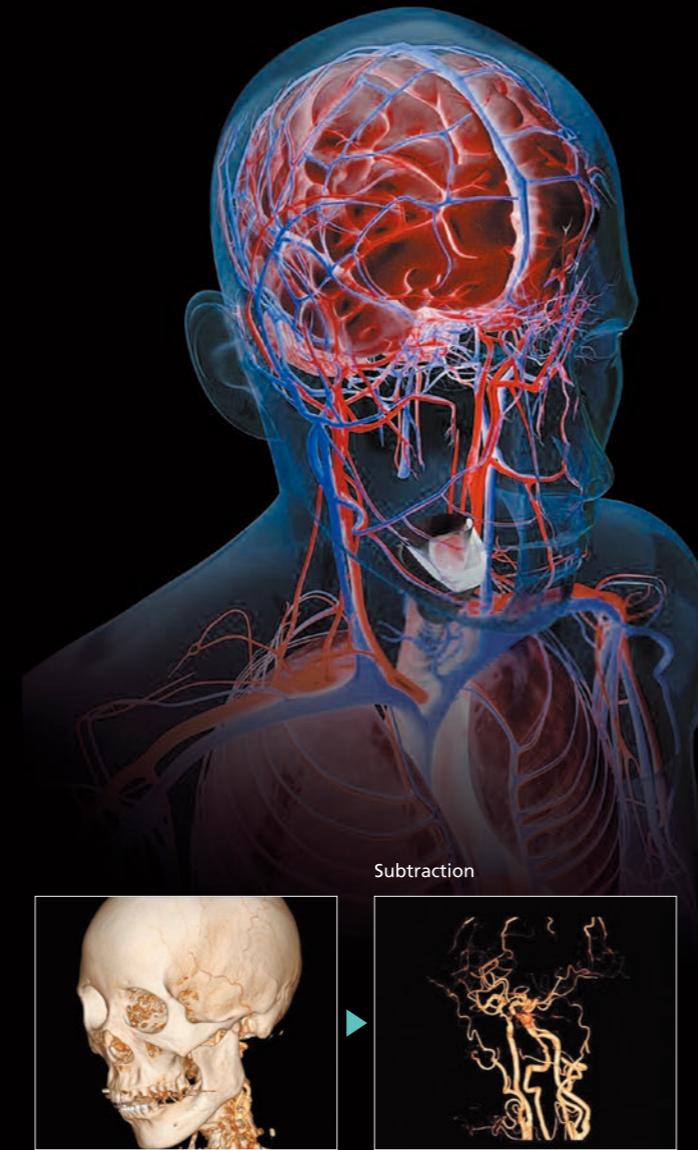
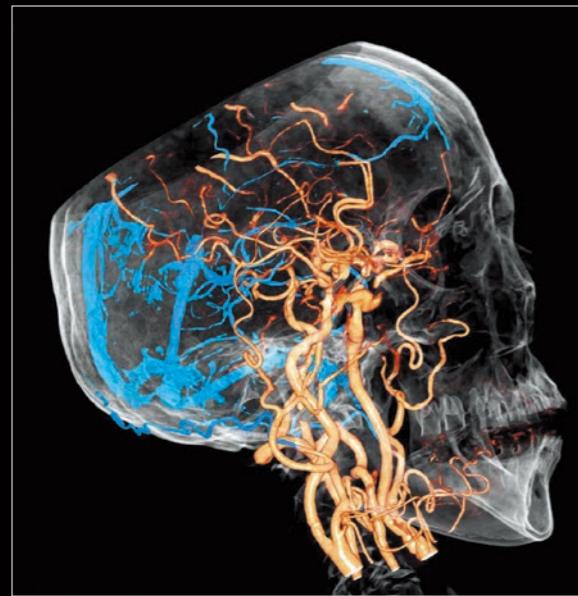
Brain

FCT Speedia

SYNAPSE 3D

Vessel Extraction & Separation

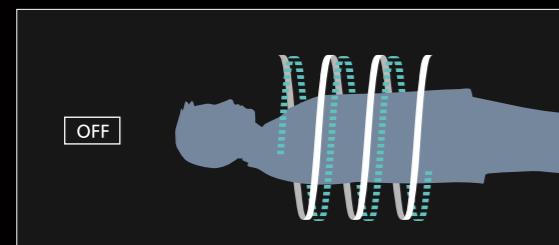
Clear vessel extraction and separation of cerebral artery and vein with a single click are achieved with technologies used in Speedia and Synapse 3D.



Technology for Precise Subtraction

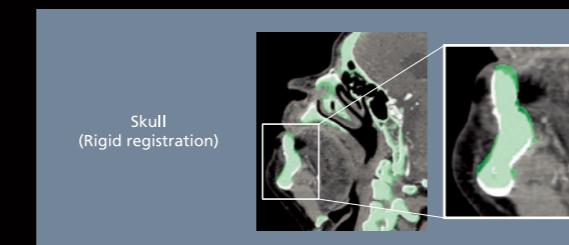
Orbit Synchronization in Helical Scan

The two orbits of helical scans before and after contrast can be synchronized, which improves the accuracy of subtraction image.



Non-rigid Registration

Non-rigid registration allows natural adjustment of body parts that otherwise is difficult in linear registration.

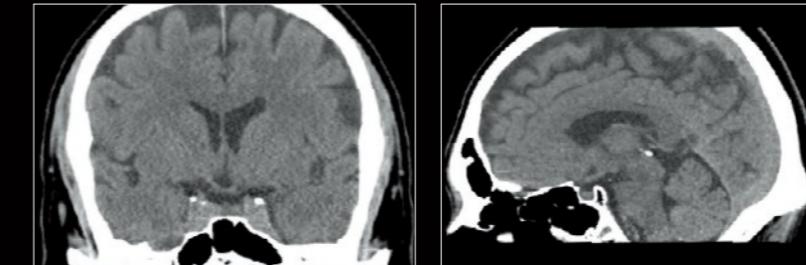


FCT Speedia

SYNAPSE 3D

High Quality MPR Image

Speedia creates thin-slice Multi Planar Reconstruction (MPR) images even from a non-helical scan, which is often used in brain examination. This allows doctors to have high contrast MPR images with fewer artifacts.

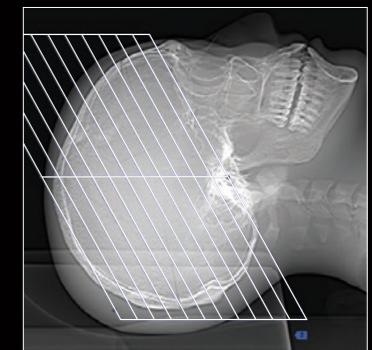


FCT Speedia

SYNAPSE 3D

Direction Control of Radiation

Speedia incorporates a tilting gantry up to 30°, improving control of the direction of radiation. Artifacts from teeth and dose to lenses of eyes can be avoided.



FCT Speedia

SYNAPSE 3D

Reduction of Repeat Risk

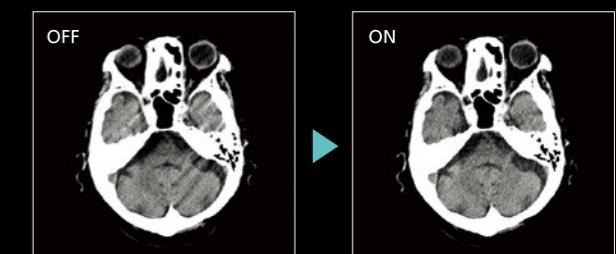
Re-calculation from Full FOV Data

Independent of the preset Field of View (FOV) for the menu. The Speedia acquires and retains full FOV data (500mm) for every scan. Therefore in cases where the patient body area is outside of the FOV set before the scan, the lost portion can be recovered by re-calculation minimizing the risk of additional scan and dose to patients.



Motion Correction

The motion correction function corrects the artifacts caused by body movement of patients with difficulty in holding still.





Respiratory

FCT Speedia

Noise Reduction with Iterative Processing

• Intelli IP Advanced

Advanced noise reduction processing employing iterative reconstruction technology reduces image noise and artifacts while maintaining a high quality image at lower doses. 7 levels of dose reduction can be selected to optimize dose and image quality per examination.

At level 7, a standard deviation (SD) improvement of 56% (approx. 80% dose reduction) is expected.

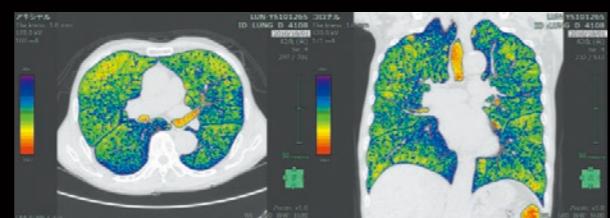


FCT Speedia

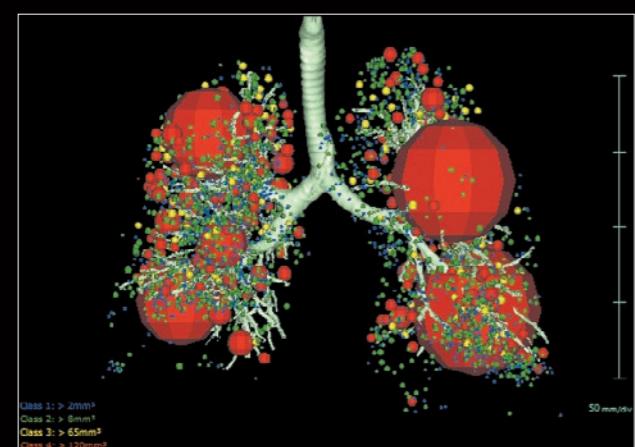
Lung Analysis

• Color-coding of Low Attenuation Area (LAA)

Synapse 3D color-codes the CT value in the image and makes the LAA easy to be observed.



• Cluster Analysis

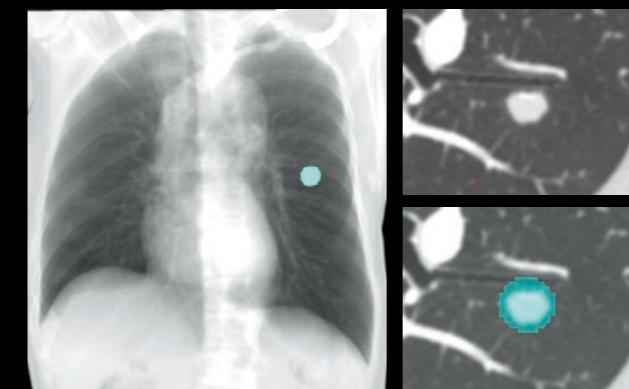


The volume and quantity of cluster analyzed from image are visualized in 3D format, which helps easy confirmation of low attenuation area.

FCT Speedia

Object Recognition

• Spherical Enhancement

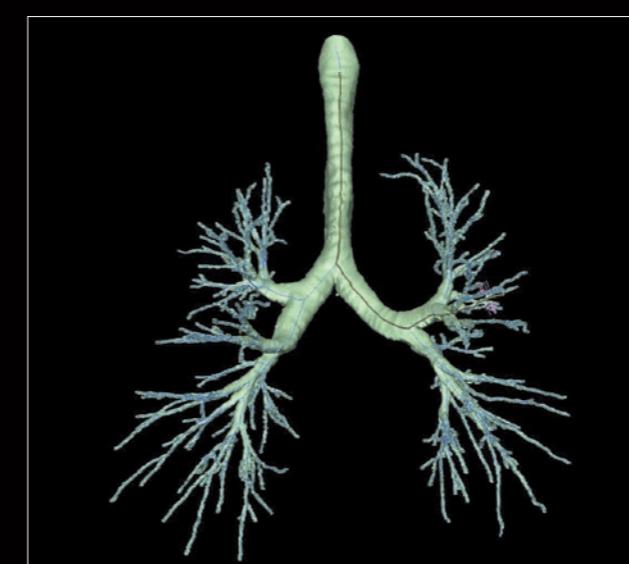


The filter using Fujifilm's world renowned image analysis technology highlights spherical figures in the image.

FCT Speedia

Bronchus Analysis

Selecting a pathway from extracted bronchus provides images of straight CPR (Curved Planar Reconstruction) and short axis. In addition, the Synapse 3D automatically traces exterior and interior wall so that the long and short axis of outer and inner diameter, and the thickness of bronchus wall can easily be observed.



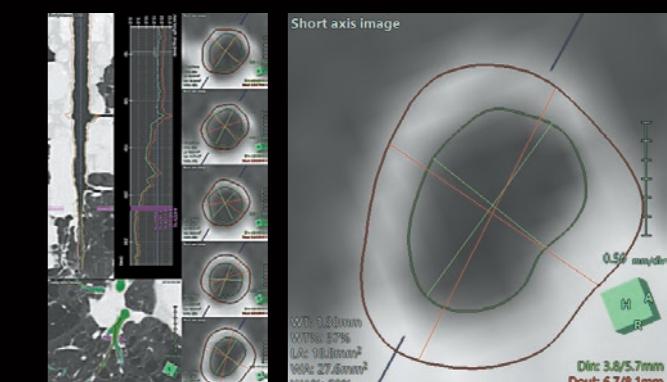
SYNAPSE 3D

Object Recognition

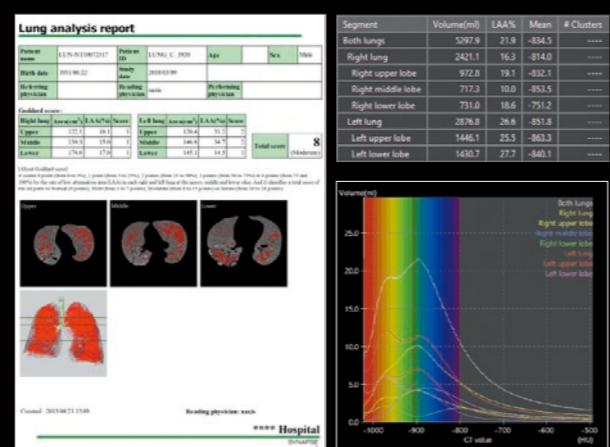
• Automatic 5 lobes extraction



The lung area can be extracted automatically. In addition, the 5 lobes are color-coded so as to see which part of lobes the lesion belongs to.



• Goddard Score/LAA%/Histogram





Whole body & Vessels

FCT Speedia

SYNAPSE 3D

High Quality 3D Reconstruction

- High Speed Scanning with CORE Method

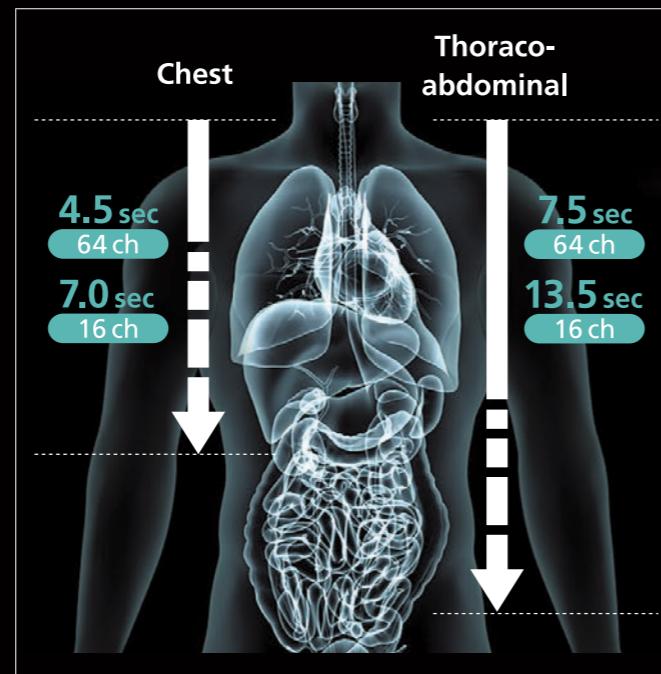
CORE (Cone-beam Reconstruction) method which is a unique 3D reconstruction algorithm optimizes the range of acquisition data to be reconstructed. By utilizing the data across the whole detector effectively, a high quality image with less artifact can be obtained even with a high-pitch scan.



FeldKamp method
(Conventional 3D image reconstruction)



CORE method
(New 3D image reconstruction)

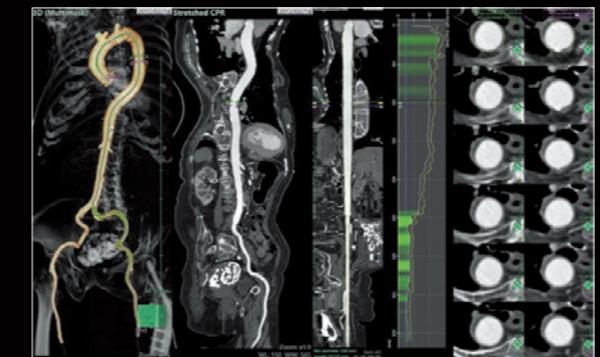


FCT Speedia

SYNAPSE 3D

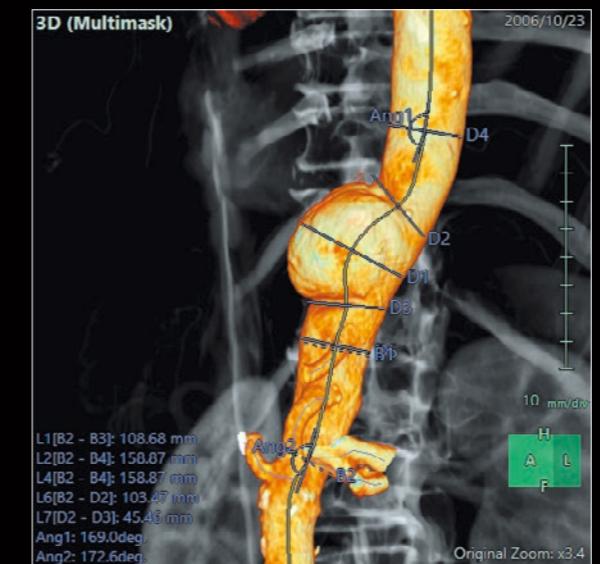
Vessel Analysis

- Easy CPR image creation



Selection of vessels to apply Curved Planar Reconstruction (CPR) is available by clicking a starting and end point, and thereby Straight CPR, stretch CPR and cross section view images can easily be obtained.

- Aneurysm Analysis



Measurement result of aneurysm and vessel diameter such as thoracic aortic aneurysm (TAA) and abdominal aortic aneurysm (AAA) can be provided. In addition, virtual implantation of stent grafts allows simulation of stent graft order allowing the clinician to make informed choices about what device to use.



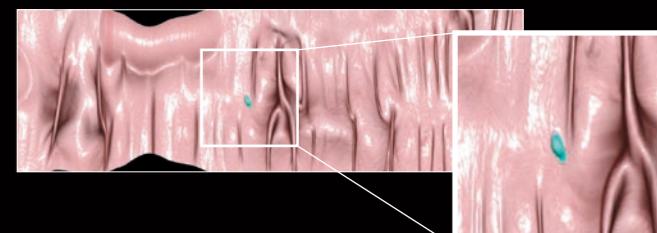
Colon

FCT Speedia

SYNAPSE 3D

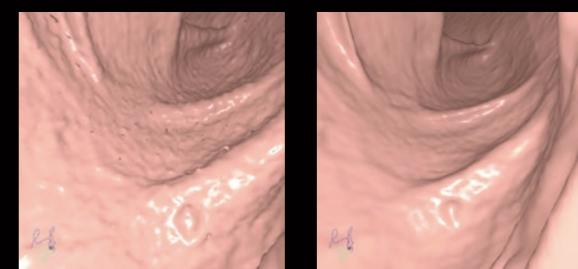
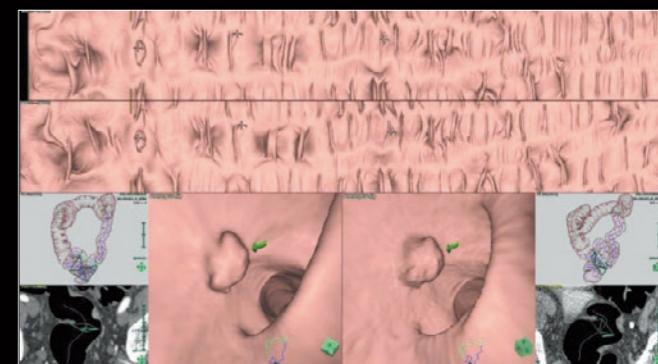
Torous Enhancement Filter

The colon area can also be observed in a filet view format. Combining the enhancement filter, the protrusions on the colon wall can easily be found.



Virtual Endoscopy

The colon analysis of Synapse 3D extracts colon automatically and provides virtual endoscopy image. This allows observation of peripheral region of alimentary canal, the region beyond the brocking area and gives an option to have colon diagnosis with less stress.



Low dose 1.3mSv

Intelli IP LEVEL7



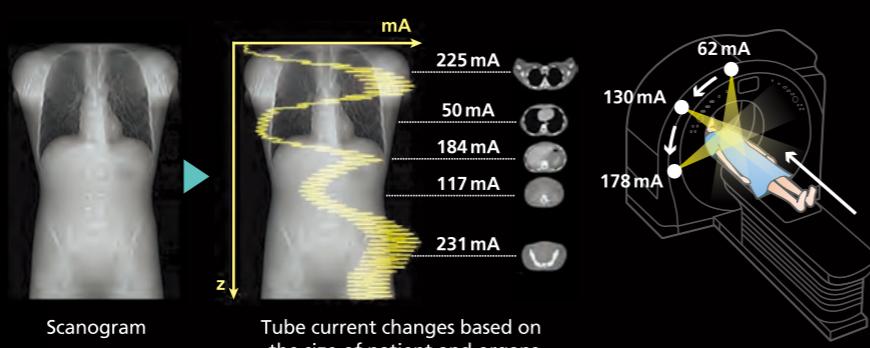
FCT Speedia

SYNAPSE 3D

Automatic 3D mA modulation for dose optimization

- IntelliEC

The tube current is optimized in a 3D direction (X-Y-Z) based on information on the size of the patient and organs obtained from the scanogram and preset target SD. This allows the production of images at a constant noise level, over the entire scan region optimizing the balance between image quality and exposure.



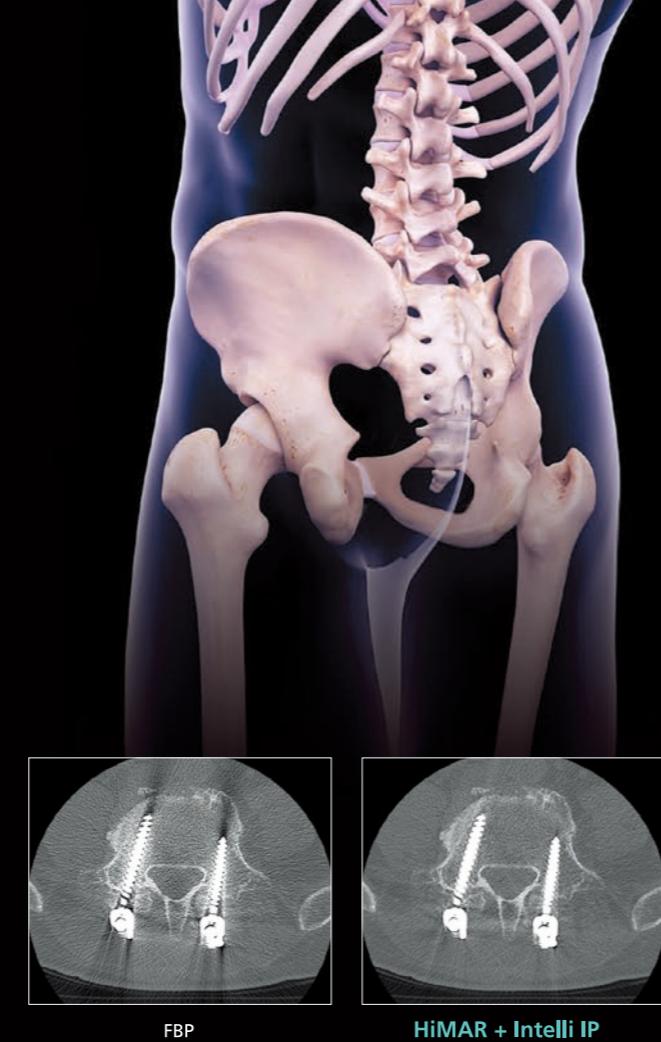
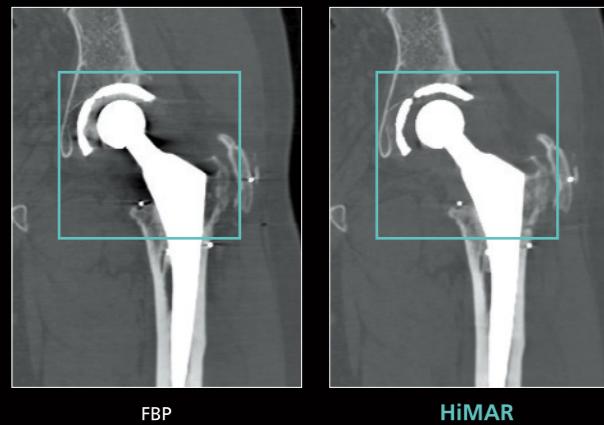


Orthopedics

FCT Speedia SYNAPSE 3D

High quality Metal Artifact Reduction (HiMAR)

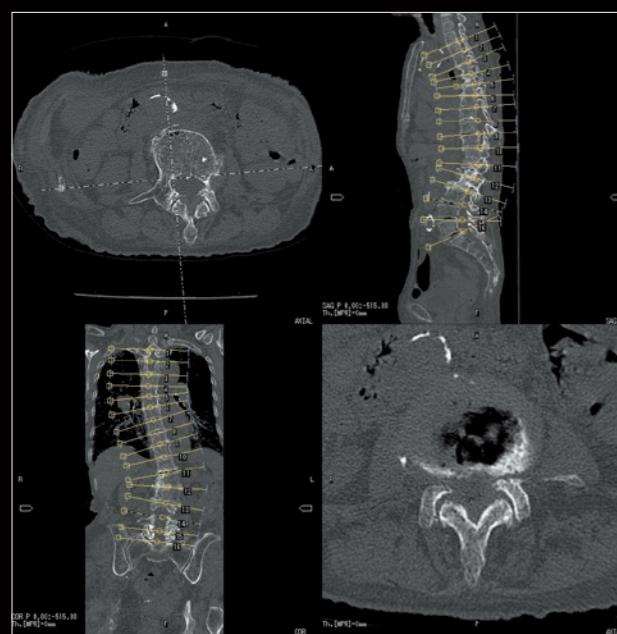
Speedia adopts a unique algorithm "HiMAR" that corrects artifacts caused by metal objects such as implants.



FCT Speedia SYNAPSE 3D

Multi-angle MPR for Vertebral Observation

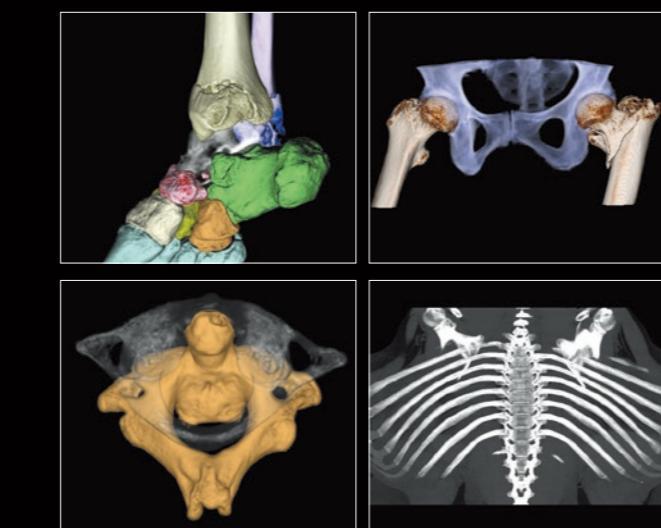
Reconstruction can be performed at multiple angles along each vertebral disc to easily observe the condition of vertebral bodies and discs. Standard templates for reconstruction position and angles are provided for cervical and lumbar spine but arbitrary selection is also available.



FCT Speedia SYNAPSE 3D

Bone Separation

Advanced object recognition technology provides bone separation functionality, helping to observe joints easily by coloring the body components.



SYNAPSE Case Match

Work In Progress

For Education , Conference and Patient explanation

Content-Based Image Retrieval System

SYNAPSE Case Match system uses a FUJIFILM unique algorithm to retrieve radiological cases from a database of thousands of clinical images in which the features of pathological changes are similar. This enables doctors to easily refer to similar cases without any keyword and compare multiple cases quickly, improving the education and research of the doctor.

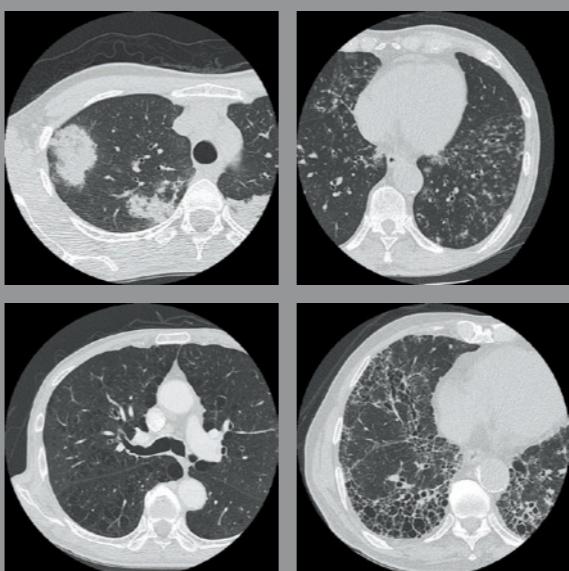
Applicable to Lung nodule, Diffuse parenchymal lung disease and Hepatic tumor.

NOTE This system is not a medical device. This is intended not for medical activities such as diagnosis but for Education, Conference and Patient explanation.

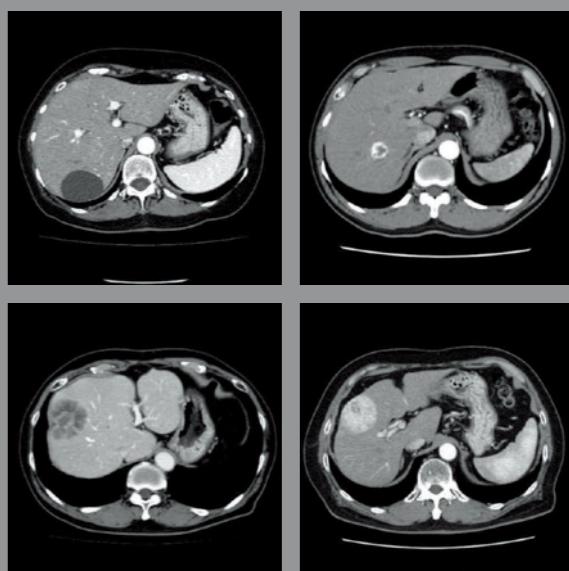
- Lung nodule



- Diffuse parenchymal lung disease



- Hepatic tumor



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http://www.fujifilm.com/products/medical/computed_tomography/index.html



FCT Speedia series
Clinical Solution

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The model type of FCT Speedia series is Supria. For the details of regulatory information and availability in your country, please contact our local representative.