

# Dual Source CT Lung Perfused Blood Volume Imaging With Dual Energy

## SOMATOM Definition Dual Energy scanning

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### HISTORY

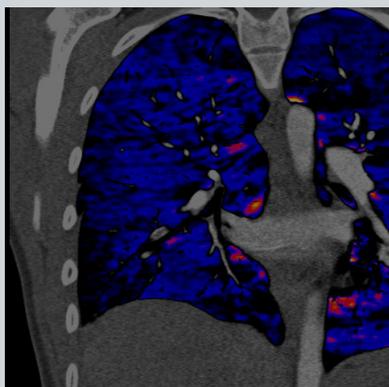
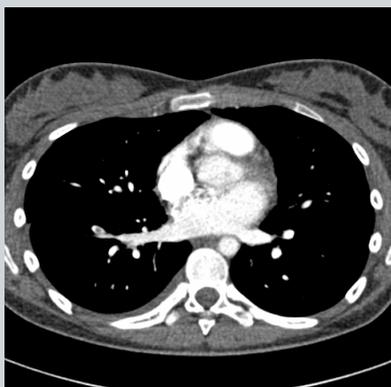
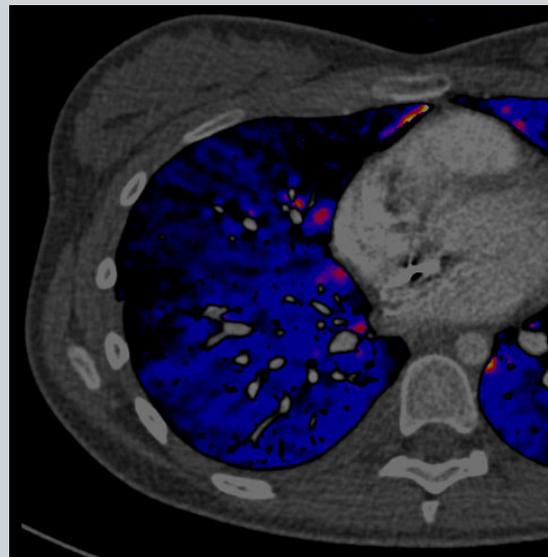
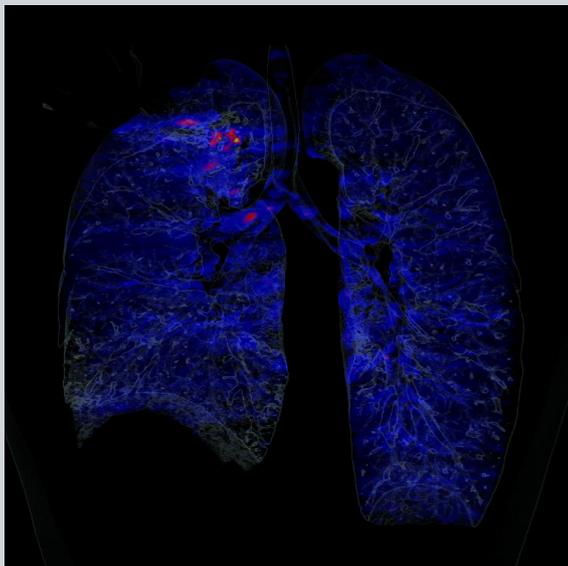
20 years old female patient after closure of open foramen ovale with Amplatz's occludor suffered for two days by chest pain was referred to chest CT-angiography. A scan of the thorax was performed on the SOMATOM Definition using spiral Dual-Energy data acquisition.

### DIAGNOSIS

Pulmonary embolism affecting single segment – lateral segment of the right lower lobe – was found with corresponding deficit of perfusion on the pulmonary blood-volume (PBV) map.

### COMMENTS

Pulmonary blood-volume maps created during dual-energy data evaluation showed perfusion deficit within affected segment according to the sub-total occlusion of the segmental pulmonary artery by the embolus.



## EXAMINATION PROTOCOL

<i>Scanner</i>	<i>SOMATOM Definition</i>
<b>Scan area</b>	<i>Thorax</i>
<b>Scan length</b>	<i>275mm</i>
<b>Scan time</b>	<i>10s</i>
<b>Scan direction</b>	<i>Cranio-Caudal</i>
<b>kV</b>	<i>140 / 80 kV</i>
<b>Effective mAs</b>	<i>20 / 150 eff mAs</i>
<b>Rotation time</b>	<i>0.5s</i>
<b>Slice collimation</b>	<i>0,6mm</i>
<b>Reconstructed slice thickness</b>	<i>0,6mm</i>
<b>Kernel</b>	<i>B20f</i>

The information presented in this case study is for illustration only and is not intended to be relied upon by the reader for instruction as to the practice of medicine. Any health care practitioner reading this information is reminded that they must use their own learning, training and expertise in dealing with their individual patients. This material does not substitute for that duty and is not intended by Siemens Medical Systems to be used for any purpose in that regard.

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