

Think “DSCT STAT”!

For neuro imaging

Answers for life.

SIEMENS



Thinking “CT STAT” for neurological emergencies?

Think “DSCT STAT”!

Neuro imaging – the complete story

Today, CT scans have become a rapid, accurate, and common clinical diagnostic tool for emergency situations. “CT STAT” is a first-line diagnostic order in many cases of neurological emergencies where time to diagnosis and treatment is critical.

Dual Source CT (DSCT) offers a paradigm shift in imaging diagnostics, from simply making neurological emergency CT scans “faster” to offering improved image quality and clinical capabilities – **easier, faster, and better** diagnoses.

It provides the ability to quickly determine diagnosis and the unique ability to discern treatment pathway with

vascular kinematics and Dual Energy indications for hemorrhagic bleeds, plaque burden, carotid stenosis, and perfusion defects among other outcomes.

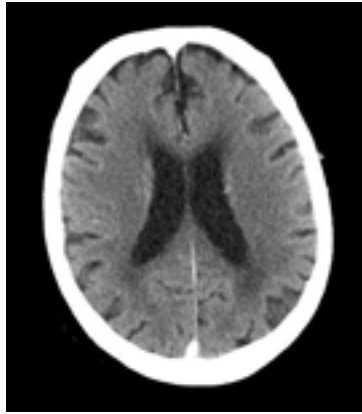
All done in one “STAT” protocol using the unique features provided by the comprehensive Dual Source CT.

Maximize profits with rapid throughput from the emergency room to the interventional and vascular lab department by increasing your interventional vascular outcomes.

Common indicators	Conventional “CT STAT”	“DSCT STAT”
Intracranial bleedings	Detection and exclusion of bleedings	Differentiate between fresh and old bleedings with <i>syngo</i> Dual Energy
Stroke	Non-contrast/contrast dynamic evaluation of the brain perfusion limited to detector width	Dedicated stroke protocol for enhanced treatment decision. Includes dynamic 3D brain perfusion and 3D tissue at risk analysis of the entire area of interest as well as evaluation of intracranial vessels and extracranial head-to-neck vasculature with Adaptive 4D Spiral
Neurovascular aneurysms	Morphology of large and mid-size aneurysms	Evaluate aneurysms of all sizes, even closely connected to bones, by utilizing <i>syngo</i> Dual Energy Direct Angio CT

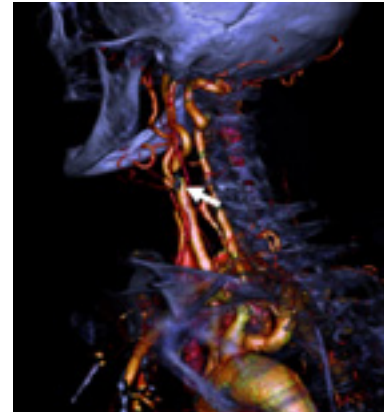
Head

- Differentiation of fresh and old bleedings
- Comprehensive stroke protocol
- Detection of ruptured aneurysms



Spine

- Evaluation of intracranial vessels and extracranial head-to-neck vasculature



Compared to traditional CT scanners and even the latest and next-generation CT scanners offered by most vendors, Dual Source CT (DSCT) offers a clear differentiator with two tubes

and two detectors – providing twice the image resolution, twice the exam speed, twice the X-ray power, and twice the clinical capabilities.

Differentiators

Twice the resolution – 0.33 mm resolution (equal to 1080 Ip HD resolution)



Your advantage

Visualize and better differentiate very small anatomy like tiny blood vessels and clear delineation of bone from soft tissue. Elimination of windmill artefacts and reduction of metal artefacts utilizing z-focal deflection (z-Sharp)

Twice the speed – 83 ms temporal resolution (shutter speed) @ 180 RPM



Reduce artifacts caused by patient's as well as organ movement

Twice the power – 2 generators @ 80 kW delivering 160 kW total power



Scan obese and morbidly obese patients with high diagnostic quality with the same scan speed as normal patients while maintaining radiation dose as low as reasonably possible

Twice the capabilities – Dual Energy



Evaluation for neuro vascular traumatic events and vascular evaluation using Dual Energy provides comprehensive information about extent, location, and age of a bleeding

More than twice the coverage – Adaptive 4D Spiral with up to 6 cm perfusion coverage and up to 20 cm coverage for time-resolved CT Angios



See the whole disease – from perfusion defects to visualization of the whole vascular tree as well as visualization of pulsating aneurysms

DSCT addresses the need for better patient care and improved operational efficiencies. It provides the ability to address both clinical compromises as well as the tremendous financial burdens faced by healthcare facilities.

Differentiators

Specialized fast stroke protocols can significantly improve diagnostic accuracy



Your advantage

Improve clinical and operational outcomes and quality metrics. Differentiate your healthcare services and improve care satisfaction to help build patient/ referring physician affinity

Faster time to diagnosis can reduce length of stay (LOS) and cost of care



Improve ED workflow – drive out costs

200-bed hospital can open up 4 'effective' beds per 8 hrs.* LOS reduction



Free up capacity – improve resource utilization

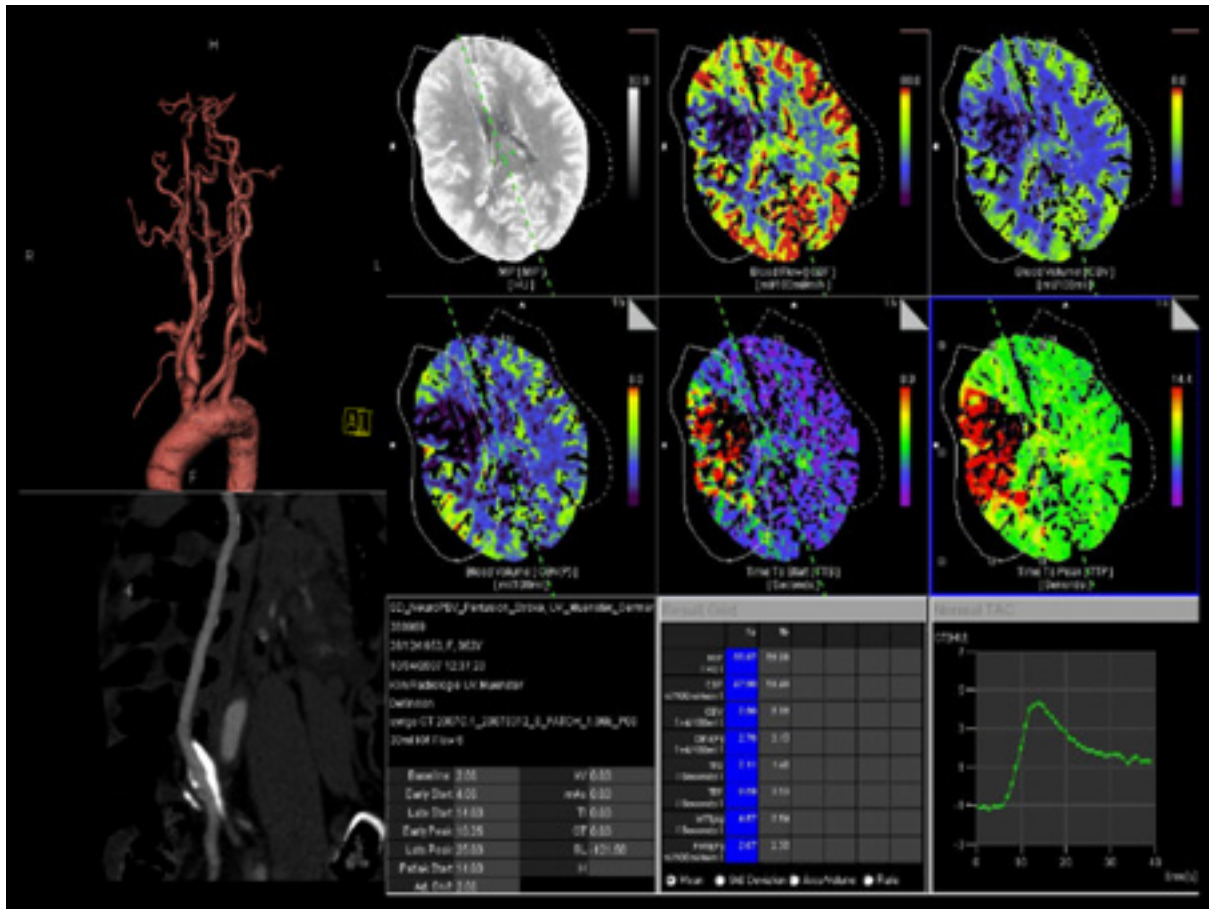
Improved diagnosis of tiny lesions like fractures, aneurysms, bleedings, tumors



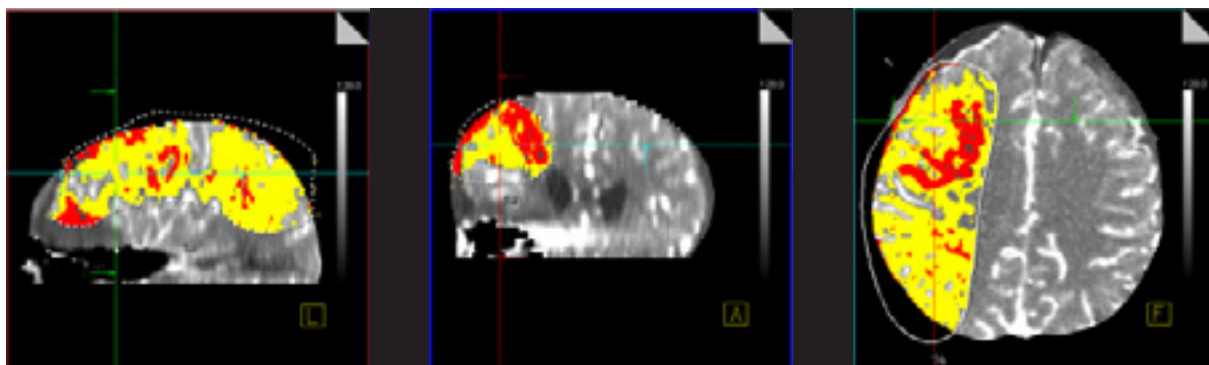
Avoid missed diagnosis and reduce clinical and financial risk

* Results may vary. Data on file.

CT Angio and Perfusion

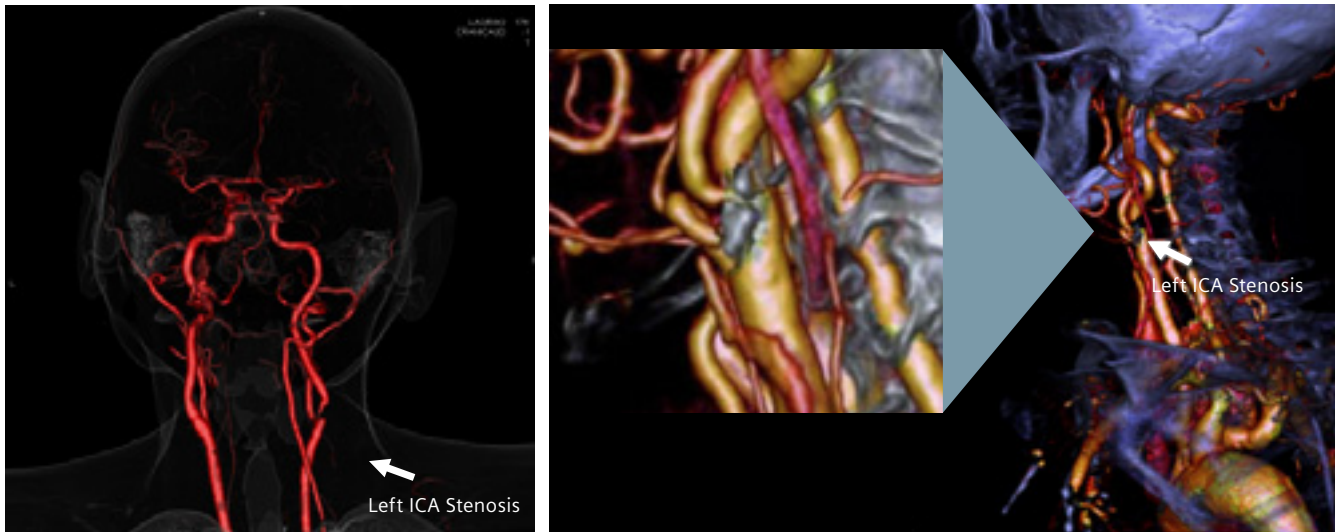


Adaptive 4D Spiral with volume perfusion



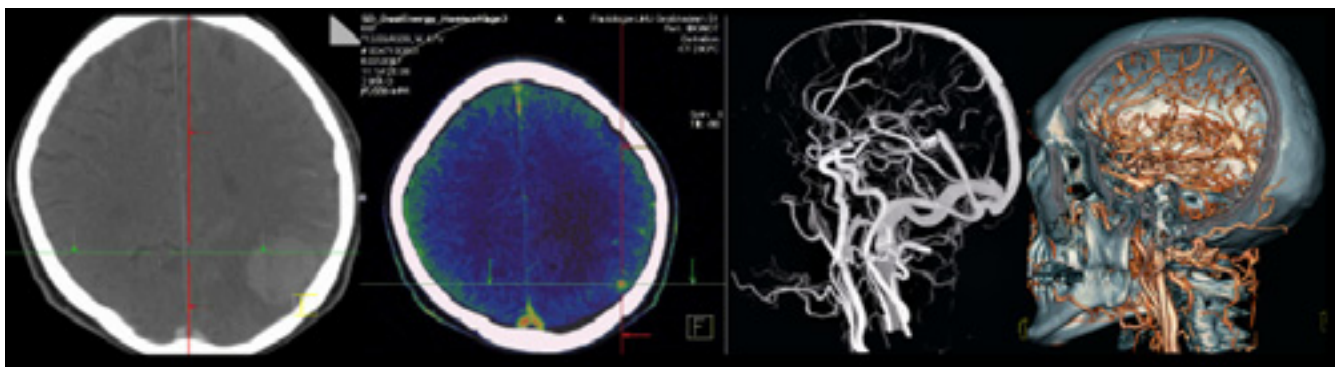
Dynamic imaging providing the unique ability to do a 3D evaluation of different perfusion parameters (Blood Flow, Blood Volume, Mean Transit Time, Time To Peak, ...) so that areas of hypoperfusion and/or hyperperfusion as well as the Tissue At Risk Analysis are evaluated in 3 dimensions.

Superb CT Angiography for diagnostic evaluation of vascular structures



DSCT STAT allows fast, simple, and easy evaluation of head and neck vasculature for diagnosis of vascular pathologies and upstream impact. Dynamic (or real-time) Dual Energy available only on the DSCT enables evaluation of even calcified stenotic vessels with ease and to segment out and display contrast-filled vessels with underlying or overlying bony structures.

Beyond visualization with Dual Energy



DSCT STAT scanning is taking CT neurovascular diagnostics into a completely new horizon – from pure anatomical imaging to morphological and even functional imaging. The spectrum of new clinical applications provided by dynamic (or real-time) Dual Energy technology – available only on DSCT STAT – will help improve diagnostic confidence and operational efficiencies, ultimately resulting in better patient care and improved outcomes.

DSCT STAT with Dual Energy allows for brain hemorrhage evaluation for new versus old bleeds, automatic separation of contrast-filled vessels from bone, as well as visualizing brain and tumor perfusion. Not only from an anatomical perspective but also from a morphological perspective. From brain hemorrhage evaluation for new versus old bleeds to the automatic separation of contrast from bone.

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Global Business Unit

Siemens AG
Medical Solutions
Computed Tomography
Siemensstr. 1
DE-91301 Forchheim
Germany
Phone: +49 9191 18 0
Fax: +49 9191 18 9998

Global Siemens Headquarters

Siemens AG
Wittelsbacherplatz 2
80333 Muenchen
Germany

Global Siemens Healthcare Headquarters

Siemens AG
Healthcare Sector
Henkestr. 127
91052 Erlangen
Germany
Phone: +49 9131 84-0
www.siemens.com/healthcare

Legal Manufacturer

Siemens AG
Wittelsbacherplatz 2
DE-80333 Muenchen
Germany

www.siemens.com/healthcare