

Clinical Cases

siemens-healthineers.com/somatom-go-all





SOMATOM go.All

Ease all your CT demands

In a market increasingly characterized by reimbursements based on quality of care rather than fee-for-service, healthcare providers must find new ways to secure income and referrals. It is therefore crucial for CT departments to meet all demands while maintaining consistent high-quality results.

We want to help you succeed day after day. This is why we developed the SOMATOM® go. platform. As a member of this platform, SOMATOM go.All enables all users to confidently take on advanced CT procedures. The scanner features a unique tablet based mobile workflow, user guidance with our GO technologies, and exclusive innovations such as Tin Filter low-dose technology.

SOMATOM go.All is built for standardization of procedures and results, and allows operators to interact with patients in a more personalized way than ever before. It lowers your total cost of ownership with an all-in-one solution and supports the growth of your business with additional reimbursement opportunities.



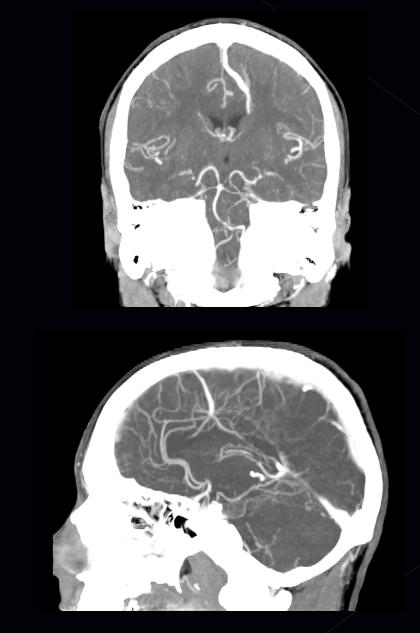


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Scan time	13.4/13.9/ 14.2 s
Scan length	171/177/ 181 mm
	120 kV
CTDI _{vol}	38.03/36.94/ 36.22 mGy
DLP	738/741/ 741 mGy cm

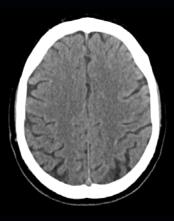
- Excellent grey-white matter differentiation thanks to Stellar detector
- Achieve excellent image quality at very low doses with SAFIRE
- MIP and thin-slice axial MPRs



MIP

Non-contrast 3 mm MPRs





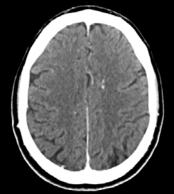
Arterial 3 mm MPRs





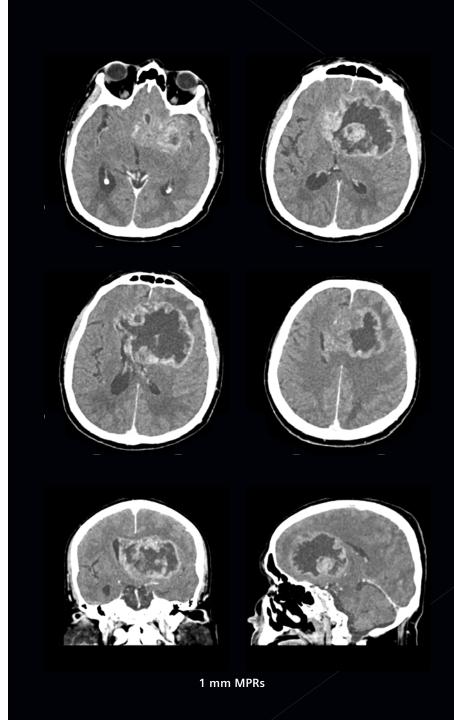
Late phase 3 mm MPRs





Scan time	12.4 s
Scan length	158 mm
	110 kV
CTDI _{vol}	39.06 mGy
DLP	707 mGy cm

- Achieve excellent image quality at very low doses with SAFIRE
- Large glioblastoma multiforme



1.5 mm MPRs

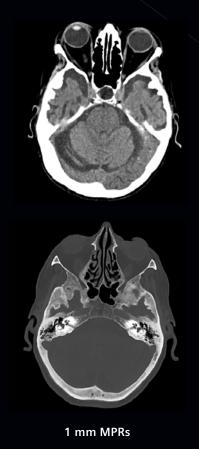
Head and Neck Imaging

Scan time	11 s
Scan length	135 mm
	120 kV
CTDI _{vol}	43.46 mGy
DLP	747 mGy cm

- Excellent and homogenous image quality even in the skull base thanks to Stellar detector and SAFIRE
- Automatic MPRs with Recon&GO

Scan time	12 s
Scan length	154 mm
	120 kV
CTDI _{vol}	39.8 mGy
DLP	699 mGy cm

• Excellent image quality for both soft tissue and bony structures thanks to Stellar detector





Cinematic VRT







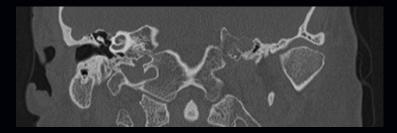
0.8 mm MPRs

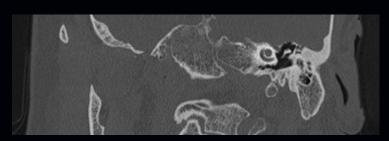
Scan time	11 s
Scan length	166 mm
	Sn100 kV
CTDI _{vol}	5.6 mGy
DLP	77 mGy cm

 Tin Filter technology in combination with 10 kV Steps and Stellar detector allow for exceptional image quality

Scan time	4.86 s
Scan length	59 mm
	130 kV
CTDI _{vol}	46.86 mGy
DLP	408 mGy cm

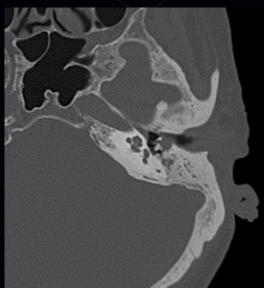
- High resolution and contrast in sub-mm MPRs
- Automated, zero-click results with Recon&GO powered by ALPHA technology





0.6 mm MPRs of the right and left internal auditory canal





0.5 mm MPRs of the right and left internal auditory canal

Scan time	5 s
Scan length	70 mm
	Sn140 kV
CTDI _{vol}	44.97 mGy
DLP	407 mGy cm

• Enhance precision and spacial resolution with thin slices always on thanks to the Stellar detector

Vascular Imaging

Vascular Imaging

Scan time	8 s
Scan length	688 mm
	90 kV
CTDI _{vol}	3.05 mGy
DLP	201 mGy cm

- Outstanding image quality due to CARE kV and 10 kV steps
- Contrast media sensitive scanning for kidney transplant patients
- Fast scan speed for reduced motion artifacts
- Precise and homogeneous contrast media timing and opacification throughout the entire vasculature thanks to automatic ROI placement





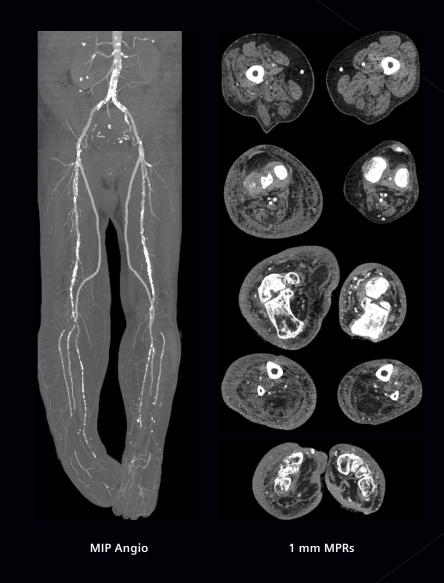


MIP Cinematic VRT

Vascular Imaging

Scan time	30 s
Scan length	1,223 mm
	80 kV
CTDI _{vol}	3.16 mGy
DLP	399 mGy cm

 Excellent contrast behavior and enhancement also of small vessel structures thanks to low-kV imaging





Vascular Imaging

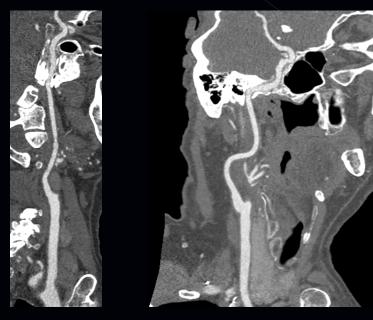
Scan time	36 s
Scan length	1,474 mm
	70 kV
CTDI _{vol}	1.02 mGy
DLP	147 mGy cm

• Long range acquisition with optimal vessel opacification thanks to High Power 70

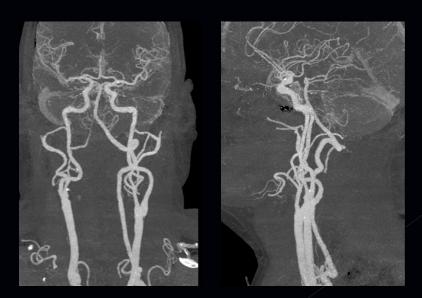
Vascular Imaging

Scan time	4 s
Scan length	329 mm
	110 kV
CTDI _{vol}	4.5 mGy
DLP	135 mGy cm

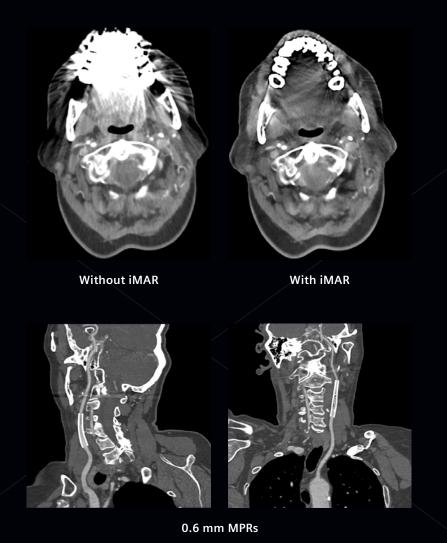
- Outstanding image quality due to CARE kV in 10 kV steps
- Automatic generation of curved MPRs of the internal carotids with Recon&GO



Curved MPRs



Thick slice MIPs with bone removal



Vascular Imaging

Scan time	8.1 s
Scan length	345 mm
	90 kV
CTDI _{vol}	20.5 mGy
DLP	792 mGy cm

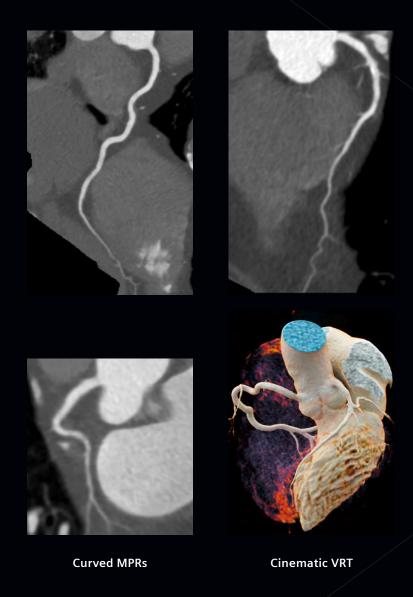
- Outstanding image quality with CARE kV in 10 kV steps
- Powerful metal artifact reduction with iMAR for higher image quality

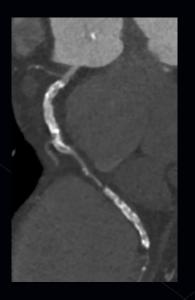
Cardiovascular Imaging

Cardiovascular Imaging

Scan time	9.7 s
Scan length	172 mm
	70 kV
CTDI _{vol}	6.74 mGy
DLP	97 mGy cm

- Cardiac CT made easy with myExam Compass: By measuring heart rate and variability it automatically choses the most appropriate heart phase to scan and reconstruct
- Optimized contrast opacification with 70 kV in thin vessels









Curved MPRs

Cardiovascular Imaging

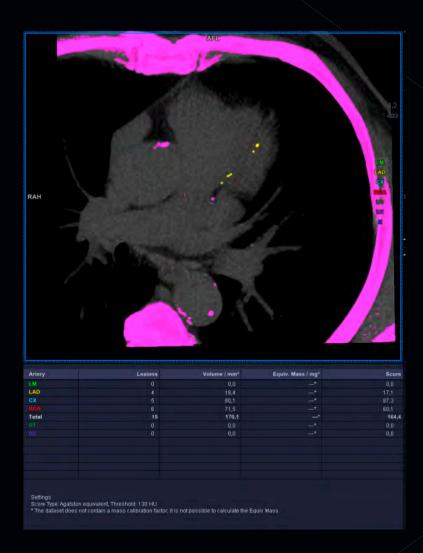
Scan time	9.3 s
Scan length	191.6 mm
	80 kV
CTDI _{vol}	11.33 mGy
DLP	186 mGy cm

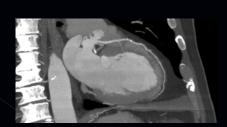
- Minimize motion artifacts with a high temporal resolution of 165 ms and achieve a sharp visualization with thin slices always on
- Automated, zero-click reconstruction of CPRs based on landmark detection with Recon&GO

Cardiovascular Imaging

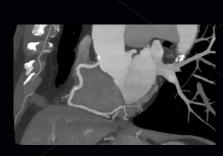
Scan time	8.84 s
Scan length	120 kV
	70 kV
CTDI _{vol}	3.25 mGy
DLP	45 mGy cm
Heart Rate	67 bpm

- Fitting your workflow:
 Quantitative measure by
 means of Agatston score
 directly at the console or fully
 automatic with Recon&GO
- Open up the benefits of low-kV imaging for your Calcium Scoring scans with any kV Agatston equivalent CaScoring











MIPs

Cinematic VRT

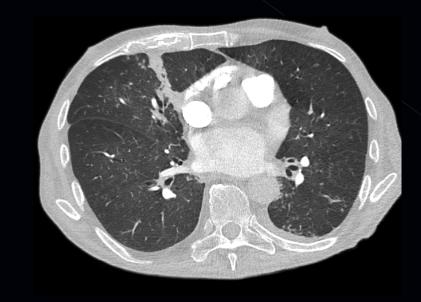
Cardiovascular Imaging

Scan time	8.46 s
Scan length	140 mm
	110 kV
CTDI _{vol}	23.26 mGy
DLP	415 mGy cm
Heart Rate	67 bpm

 See the smallest vessels sharp and crisp thanks to the combination of a high spatial and temporal resolution

Scan time	3.7 s
Scan length	374 mm
	80 kV
CTDI _{vol}	1.42 mGy
DLP	59 mGy cm

 Fast and precise evaluation of the lung and pulmonary vessels at low radiation levels thanks to the combination of low kV and Stellar detector



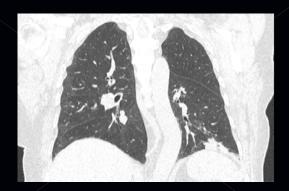
1 mm MPRs



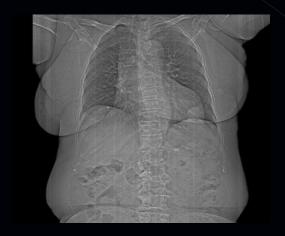
MIP



10 mm MPRs



1 mm MPRs



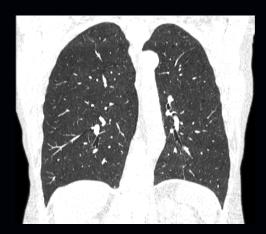
Scan time	2.3 s
Scan length	236.6 mm
	90 kV
CTDI _{vol}	3.49 mGy
DLP	104 mGy cm

- Powerful low-kV imaging with fast pitch results in a short scan time
- Low-kV imaging even for obese patients thanks to the power reserves of the Athlon tube

Scan time	2.4 s
Scan length	306 mm
	80 kV
CTDI _{vol}	1.22 mGy
DLP	42 mGy cm

- Fast and precise evaluation of pulmonary embolism
- Low radiation levels thanks to low-kV imaging



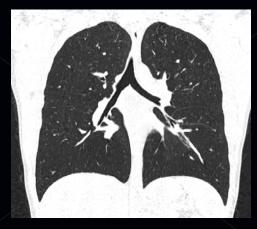


1 mm MPRs



MIP





0.8 mm MPRs



MIP

8 s
376 mm
Sn100 kV
2.1 mGy
69 mGy cm

• Low-dose non-contrast lung scan with Tin Filter, available at many kV levels

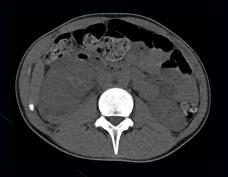
Scan time	6/7/7 s
Scan length	199/254/ 276 mm
	90/70/70 kV
CTDI _{vol}	3.5/2.07 <i>l</i> 2.34 mGy
DLP	81/59/ 107 mGy cm

- Better contrast enhancement while lowering radiation dose using low-kV imaging
- Optimized and flexible kV selection in multi-phase acquisitions thanks to 10 kV Steps and CARE kV





Cinematic VRT



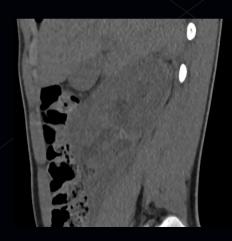


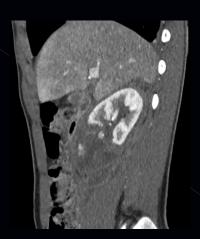


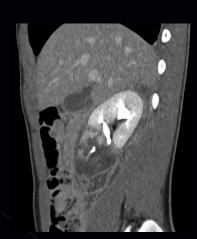
Non-contrast 1 mm MPRs

Arterial 1 mm MPRs

Late phase 1 mm MPRs



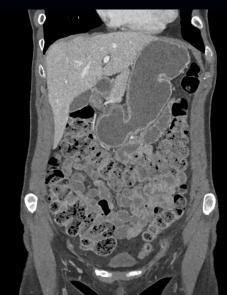




Scan time	12.3 s
Scan length	467 mm
	80 kV
CTDI _{vol}	4.54 mGy
DLP	199 mGy cm

 High contrast and signal to noise ratio for daily CT thanks to low kV, Stellar detector and SAFIRE





1 mm MPRs



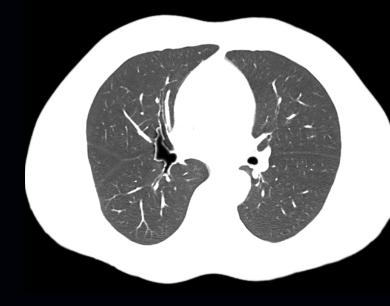


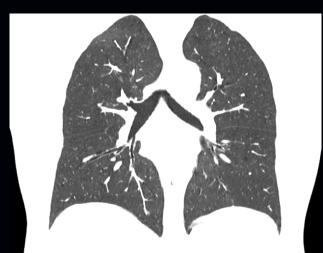
Scan time	13.5 s
Scan length	474 mm
	100 kV
CTDI _{vol}	14.16 mGy
DLP	717 mGy cm

- Obese patient
- Personalize kV for each patient
- Athlon tube with high power reserves for excellent image quality

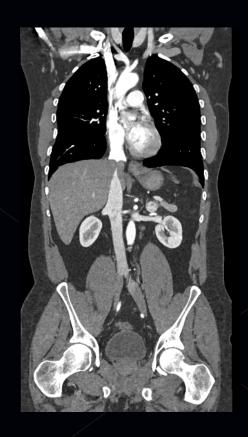
Scan time	17 s
Scan length	614 mm
	110 kV
CTDI _{vol}	6.14 mGy
DLP	281 mGy cm

- Ease all your CT demands with flexible kV settings and automated reconstruction such as Inline Spine Labelling
- Excellent image quality thanks to Stellar detector

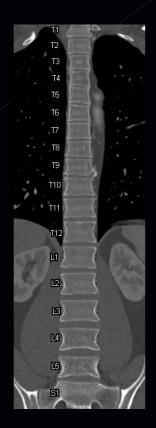




1 mm MPRs











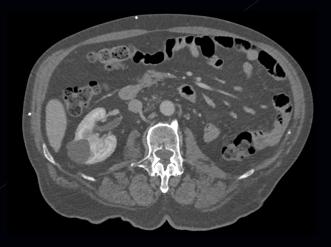
Scan time	16/7/19 s
Scan length	608/292/ 708 mm
	110/80 kV (each)
CTDI _{vol}	8.1/8.9 <i>l</i> 8.2 mGy
DLP	471/235/ 559 mGy cm

- Outstanding image quality due to CARE kV in 10 kV steps
- iMAR for metal artifact reduction



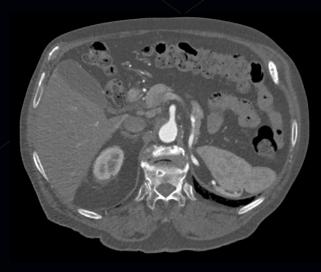
Cinematic VRT

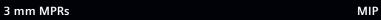




3 mm MPRs









Scan time	16.9 s
Scan length	218 mm
	Sn100 kV
CTDI _{vol}	5.37 mGy
DLP	102 mGy cm

• Optimal image quality of extremity in 0.8 mm thin slices using Tin Filter



0.8 mm MPRs

0.6 mm MPRs

Imaging

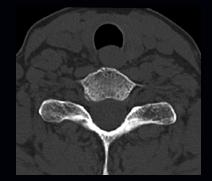
Musculoskeletal

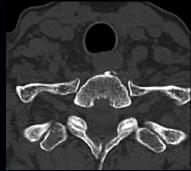
Scan time	10 s
Scan length	190 mm
	Sn110 kV
CTDI _{vol}	9.6 mGy
DLP	211 mGy cm

• Contrast media enhanced arthoscopy in light angulation of the joint

Scan time	11 s
Scan length	219 mm
	80 kV
CTDI _{vol}	10.7 mGy
DLP	205 mGy cm

• Excellent image quality thanks to Stellar detector

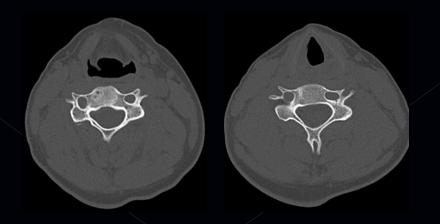




1 mm MPRs



Cinematic VRT



1 mm MPRs



Cinematic VRT

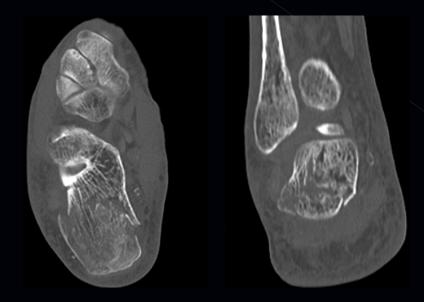
Scan time	11 s
Scan length	211 mm
	Sn120 kV
CTDI _{vol}	6.65 mGy
DLP	153 mGy cm

• Is your focus on bone or soft tissue? myExam Companion with myExam Compass guides you through the entire procedure and supports the configuration of optimized sets of parameters

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Scan time	4.27 s
Scan length	155 mm
	Sn100 kV
CTDI _{vol}	3.61 mGy
DLP	67 mGy cm

- Ultra-low dose with Tin Filter technology
- Tin Filter technology reduces beam-hardening artifacts and improves image quality in bony structures

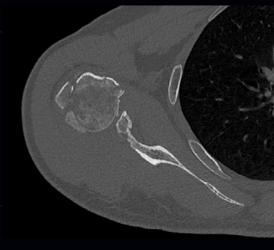


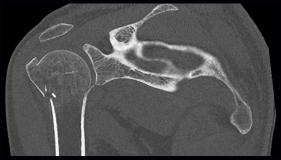
0.6 mm MPRs



Cinematic VRT







0.6 mm MPRs

Scan time	7 s
Scan length	132 mm
	110 kV
CTDI _{vol}	10.1 mGy
DLP	164 mGy cm

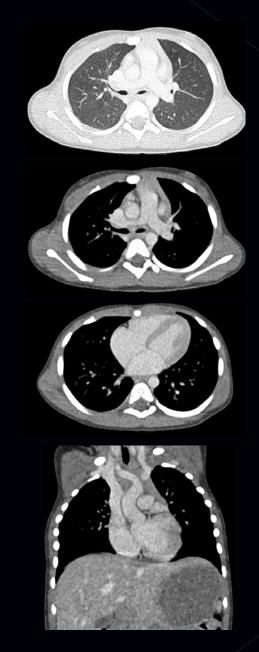
• High resolution for great visualization of shoulder fracture

Pediatric Imaging

Pediatric Imaging

Scan time	1.7 s
Scan length	174 mm
	70 kV
CTDI _{vol}	0.56 mGy
DLP	13 mGy cm

- 23-month-old child
- CARE Child protocols with 70 kV for low dose in pediatrics
- Fast acquisition for high quality pediatric scanning



1 mm MPRs





1 mm MPRs

Pediatric Imaging

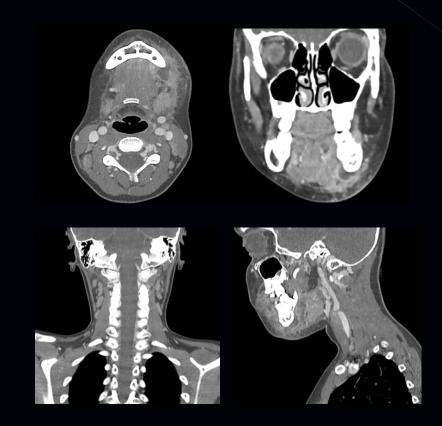
Scan time	10.5 s
Scan length	621 mm
	100 kV
CTDI _{vol}	3.93 mGy
DLP	161 mGy cm

- Tailor acquisition parameters to each patient and clinical indication by CARE kV
- 8-year-old child

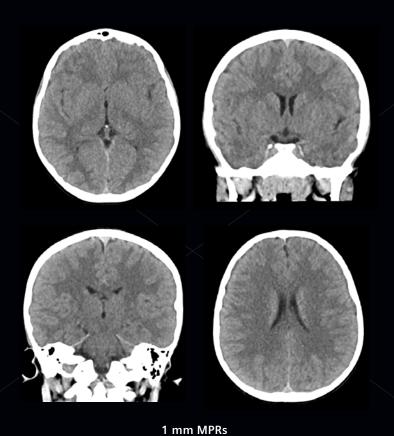
Pediatric Imaging

Scan time	11 s
Scan length	188 mm
	70 kV
CTDI _{vol}	5.15 mGy
DLP	112 mGy cm

- 8-year-old child
- CARE Child protocols with 70 kV for low dose in pediatrics



1 mm MPRs



Pediatric Imaging

Scan time	9.8 s
Scan length	203 mm
	110 kV
CTDI _{vol}	32.9 mGy
DLP	578 mGy cm

- 7-year-old child
- High contrast of brain structures
- Excellent grey/white matter differentiation

CT-guided Interventions with Guide&GO

CT-guided Intervention with Guide&GO

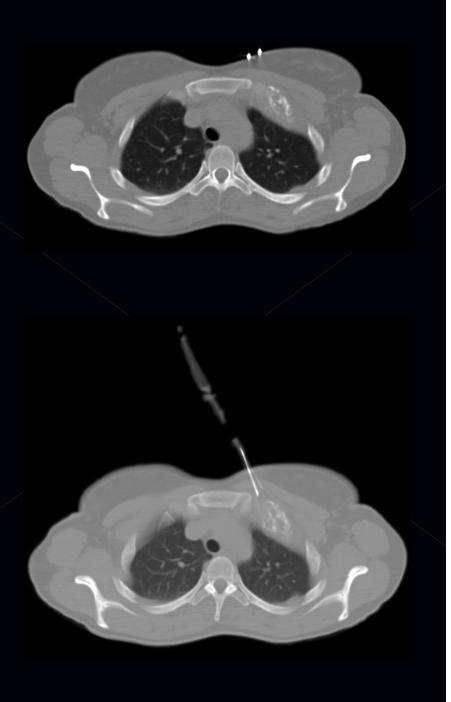
Planning spiral

Scan time	1 s
Scan length	117 mm
	110 kV
CTDI _{vol}	4.26 mGy
DLP	70 mGy cm

• Intuitive, tablet-based workflow with precise needle positioning







CT-guided Intervention with Guide&GO

i-Sequence thorax for biopsy

Scan time	9 x 0.33 s
Scan length	15 mm
	120 kV
CTDI _{vol}	32.93 mGy
DLP	49 mGy cm

- CT-guided biopsy with Guide&GO
- Safeguard needle placement with FAST i-sequence for instant monitoring of the needle position

How to get there

How to get there



myExam Companion

SOMATOM go. platform starts the era of intelligent CT scanning with myExam Companion. With it, AI turns aggregated data into built-in expertise to automatically leverage the full potential of technologies – regardless of where, when, and by whom the results have been produced.

This allows for reliable and reproducible results from day one. myExam Companion means performing all advanced CT examinations as perfectly and quickly as if they were routine, allowing even unexperienced users to find the best combination of parameters for every individual patient and procedure. Personalized imaging for precise dose and contrast media optimization, reduced unwarranted variations, and always consistent results for enhanced diagnostic experience.





Inline/offline postprocessing

SOMATOM go.All comes with two kinds of postprocessing tools: a zero-click "inline" reconstruction toolkit and another one for "offline" diagnosis.

The inline results of Recon&GO save time, reduce workflow steps, and deliver ready-to-read, standardized images. As a standard, Recon&GO includes anatomical ranges, table and bone removal, vascular CPR (Curved Planar Reconstruction), and multi recon (for automated multiple reconstructions in just one step). The High Performance Package adds spine ranges and rib ranges. Additionally it can be complemented with dedicated inline results for more advanced clinical tasks such as cardio, Spectral imaging with Dual Energy, neuro and pulmonary imaging.

For offline diagnosis, CT View&GO offers dedicated tools for smooth and efficient reading. Its standard version includes anatomical ranges, table and bone removal, vessel extension, spine ranges and endoscopic view among others. Furthermore, it can be extended with options in the field of cardio and Dual Energy.

Additionally, you can purchase syngo.CT Osteo, syngo.CT Neuro DSA and dedicated syngo.CT Dual Energy applications for different clinical questions.



Holistic Dual Energy solution

SOMATOM go.All offers a holistic solution with TwinSpiral Dual Energy that makes DE routine ready for all patients and situations – completely neutral in dose and workflow.

TwinSpiral offers the possibility to acquire two spiral data sets in sequence at different energies. Thanks to the spectral properties of the Tin Filter, TwinSpiral DE allows a better spectral separation for non-contrast examinations. By allowing you to characterize, highlight, and quantify different materials, Dual Energy gives you greater diagnostic confidence with virtually all patients.

And combined with dedicated Spectral Viewing packages it allows for comprehensive assessment. No matter if you would like to do your postprocessing directly at the AWP or rather have it sent automatically to PACS by Recon&GO – it offers a solution for all clinical workflows.



Athlon™ tube

High Power 70 allows you to scan at the highest tube current in its class: up to 825 mA at 70 kV. This achieves better iodine contrast for sharper images, even in small distal vessels. As a result, you can considerably reduce contrast media and thus scan more patients, deliver better patient care, and reduce examination costs.

Furthermore, the tube voltage is automatically tailored to each patient and clinical indication by CARE kV. Voltage levels can be adjusted at intervals of 10 kV for less dose and high contrast resolution and are aligned with respective tube currents. This keeps dose low, while image quality stays excellent.



Stellar detector

The Stellar detector reduces image noise in every scan, while the advanced iterative reconstruction SAFIRE¹ delivers excellent image quality at very low dose. This provides excellent and homogenous image quality, even in complex areas.

The Stellar detector's high-end technology includes fully integrated components and an advanced 3D antiscatter collimator. It keeps electronic noise low, increases dose efficiency, and improves spatial resolution. The smart configuration of the detector elements simplifies access, eases maintenance, and increases scanner uptime.



Tin Filter

Inherited from high-end dual source scanners, the Tin Filter (Sn) cuts out lower energies to reduce dose and optimizes contrast between soft tissue and air. This has direct benefits in lung and colon imaging, for example. Clinical experience also shows that Tin Filter technology reduces beam-hardening artifacts and improves image quality in bony structures, making it extremely useful in orthopedic examinations.



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¹ In clinical practice, the use of SAFIRE may reduce CT patient dose depending on the clinical task, patient size, anatomical location, and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task.