

syngo.via
VB20
Version

Get further.
With the CT
Oncology Engine.

[siemens-healthineers.com/clinical-engines](https://www.siemens-healthineers.com/clinical-engines)

SIEMENS
Healthineers 





Get further with your CT.

Get the most out of your images

Medical progress never happens by simply maintaining the status quo. Year after year, the CT Clinical Engines enhanced your clinical capabilities by providing better diagnostic confidence and improving process efficiency by saving working steps and making your entire patient pathway even faster.

See what's relevant

Gain profound insight into a patient's oncological treatment response during follow-up – with comprehensive visual trending information that is automatically provided with syngo.via VB20 Version. It enables you a wide Virtual Dissection of the colon, for instance. Explore Rapid Results – a ready-to-read application that you can easily combine with Lung CAD and Bone Reading.

Deliver to the point

See how a tumor changed over the course of treatment by setting historical data against current measurements. And last but not least: syngo.PET & CT Cross-Timepoint Evaluation does all this automatically at the click of a button.

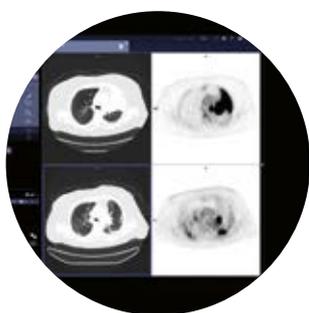
CT Oncology Applications and Engines Overview



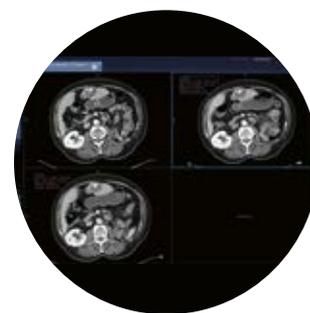
● *syngo*.CT Segmentation



● *syngo*.CT Colonography



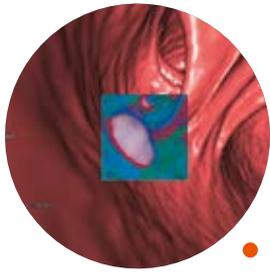
● *syngo*.PET/CT Oncology



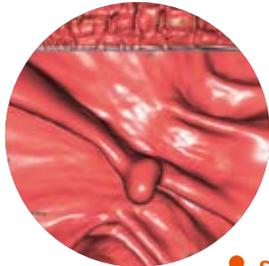
● *syngo*.PET & CT Cross-Timepoint Evaluation

Standard Applications

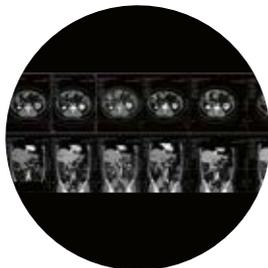
Engine



● syngo.CT
Colonography –
Advanced



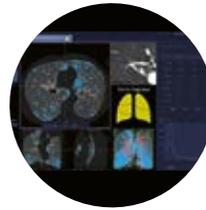
● syngo.CT
Colonography –
PEV



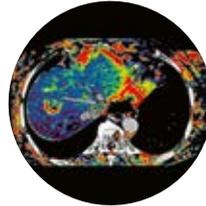
● syngo.PET & CT Onco
Multi-Timepoint



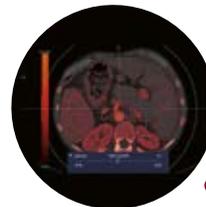
● syngo.CT
Lung CAD



● syngo.CT
Pulmo 3D



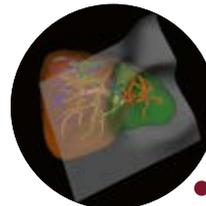
● syngo.CT Onco Function –
Hepatic AEF



● syngo.CT DE
Virtual Unenhanced



● syngo.CT
Body Perfusion



● syngo.CT
Liver Analysis



● syngo.CT
Bone Reading

Engine
Pro

Options



Screenshots showing functionality of syngo.CT Lung CAD and syngo.CT Bone Reading.

Oncology

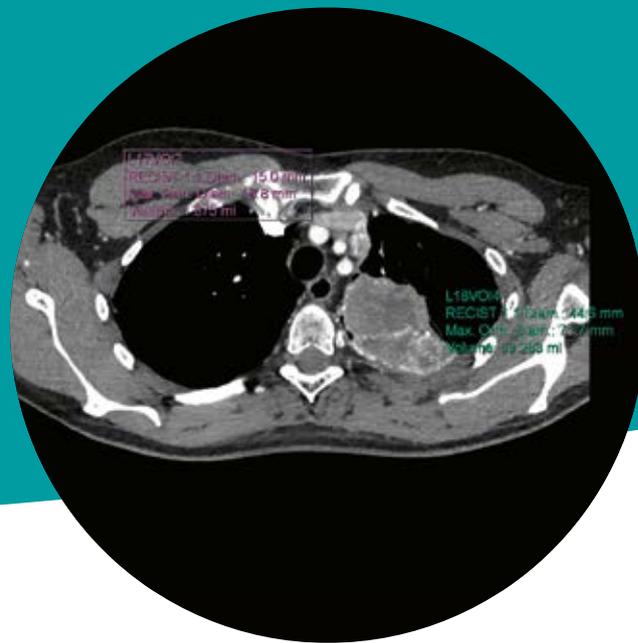
Standard Applications

Based on many conversations with healthcare professionals, we have identified which functionalities are essential for an everyday clinical assessment. Oncology Standard Applications bundle exactly those features that will additionally help you to speed up your routine assessment for oncological cases.

syngo.PET/CT Oncology

- Pre-fetching of prior exams
- Comparison of multiple timepoints (up to seven series per timepoint)
- Rotating MIP with MPR synchronization
- Synchronized scrolling
- Multiple LUTs (color scales)
- CT, PET, and MR data can be visualized, registered, and displayed as fused images
- Lesions can be evaluated by manual measurements in CT data according to RECIST 1.0 and WHO
- All findings are stored in the Findings Navigator

Oncology Engine

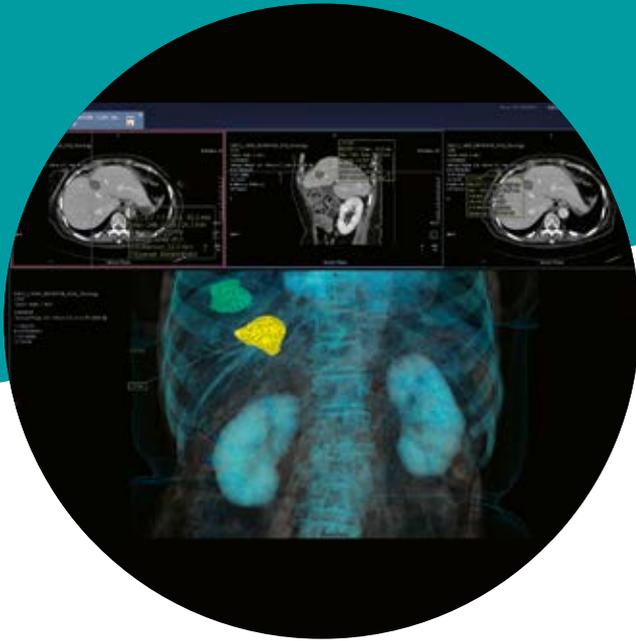


Benefit from visual trending information in follow-up

syngo.PET & CT Cross-Timepoint Evaluation

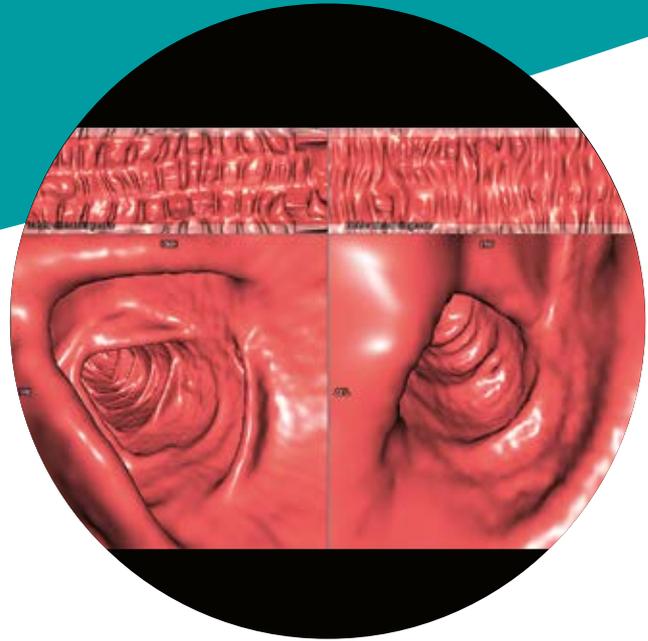
Discover a milestone for oncological assessment: *syngo.PET & CT Cross-Timepoint Evaluation* calculates and displays relevant visual trending over time. In the background, *syngo.via* automatically registers the prior timepoint, extracts previous measurements, and sets them in relation to your semi-automatic measurements of lesions from the current examination to create a comprehensive summary. The best feature: It's all available with a single mouse click in the new trending

workflow step. This provides you with all you need for a comprehensive comparison of the patient's follow-up. The trending graph represents a curve over time of the complete tumor burden or a specific lesion – allowing you to compare RECIST, volume, or any other measured parameter. The trending table allows you to explore several parameters in parallel, while the color-coded trending volume rendering technique (VRT) visualizes tumor size changes at a glance – based on the RECIST standard.



Quantify your findings
syngo.CT Segmentation

syngo.CT Segmentation provides automated segmentation and evaluation of lesions in the lung, liver, lymph nodes and other organs. In addition, further quantifications are provided like Choi criteria and advanced Hounsfield Unit (HU) statistics.



3D polyp measurement – perform your entire assessment in 3D
syngo.CT Colonography

It's time to perform your entire virtual colonography assessment in 3D. With these two exceptional tools, you can make polyp size measurements in the 3D endoluminal view. Toggle quickly between stool removal and regular display to assess potential polyps that might be hidden in residual stool cavities. In addition, a longer and redesigned Virtual Dissection provides you a planar visualization of the mucosa, enabling you to assess the colon surface across its entire width. Of course, colon reading is a time-intensive job that also requires a lot of attention. syngo.CT Colonography or its advanced version provides you an efficient shortcut. With these tools you need only one navigation instead of the two previous anterograde and retrograde steps. You can see the whole colon surface at a glance, even behind the folds. And while flying through the colon, your display is updated continuously so that the entire length of the colon can be evaluated.

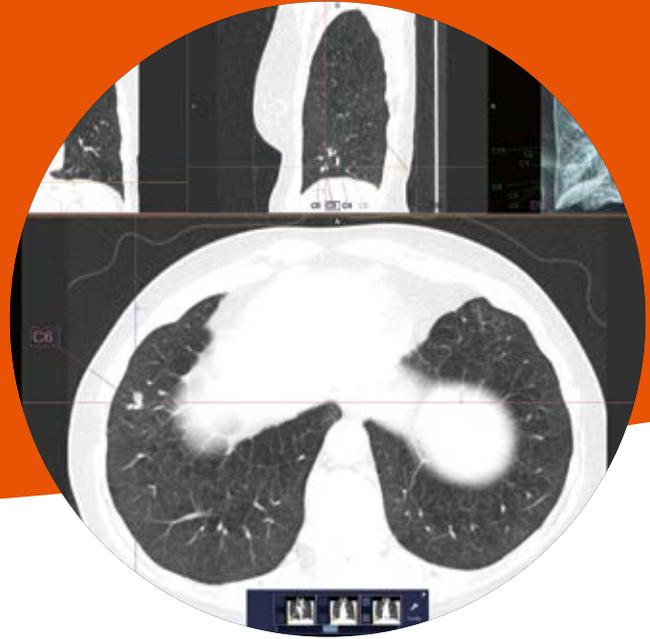
Oncology

Engine Pro



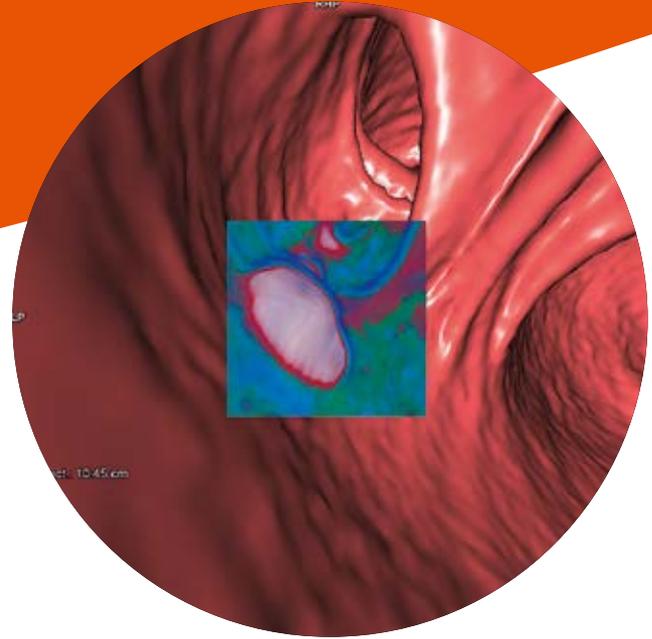
Read your cases over time
***syngo*.PET & CT Onco**
Multi-Timepoint

syngo.PET&CT Onco Multi-Timepoint extension complements *syngo*.PET&CT Cross-Timepoint Evaluation by enabling physicians to visualize up to eight timepoints concurrently on *syngo*.via.



Benefit from Lung CAD – reinforced by Rapid Results Technology
***syngo*.CT Lung CAD**

Wouldn't you profit from Lung CAD (computer-aided detection) technology available directly at your workplace? *syngo*.via immediately starts working for you when a chest CT arrives on its server. Pre-processing provides you with CAD results as soon as you open the patient's case. Whether you prefer reviewing potentially suspicious CAD-marked lesions in *syngo*.via or directly in your PACS reading environment – Rapid Results Technology now offers both.



Extend your clinical capabilities to detect colorectal cancer

syngo.CT Colonography – PEV

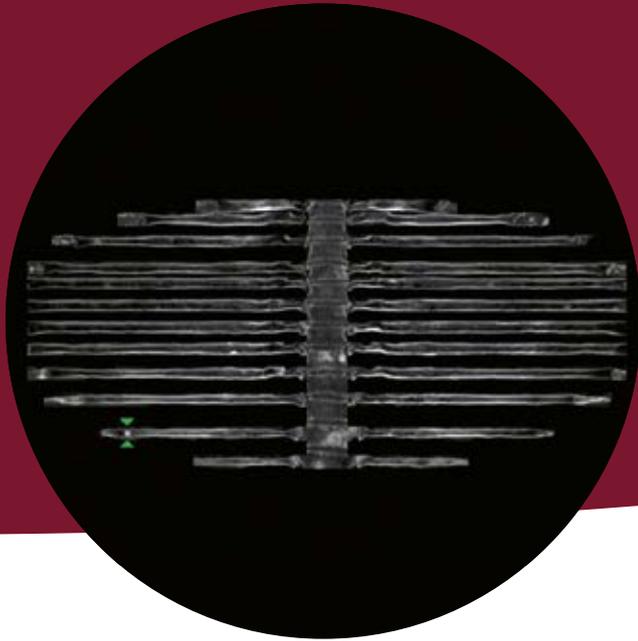
syngo.CT Colonography – PEV (Polyp Enhanced Viewing) is a fully automated computer-assisted second reader tool for improved detection of colon polyps.

Enhance your workflow for virtual colonoscopy

syngo.CT Colonography – Advanced

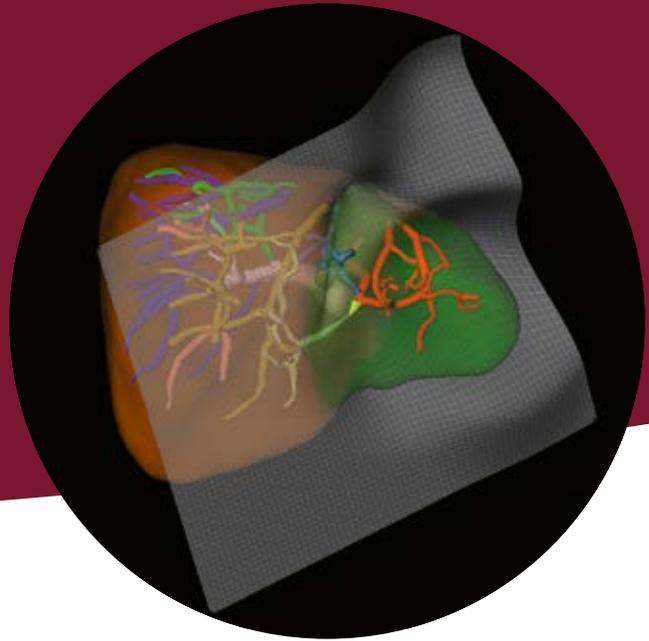
syngo.CT Colonography – Advanced is an option for syngo.CT Colonography that provides the Polyp Lens, Stool Removal functionality, and Virtual Dissection.

Oncology Options



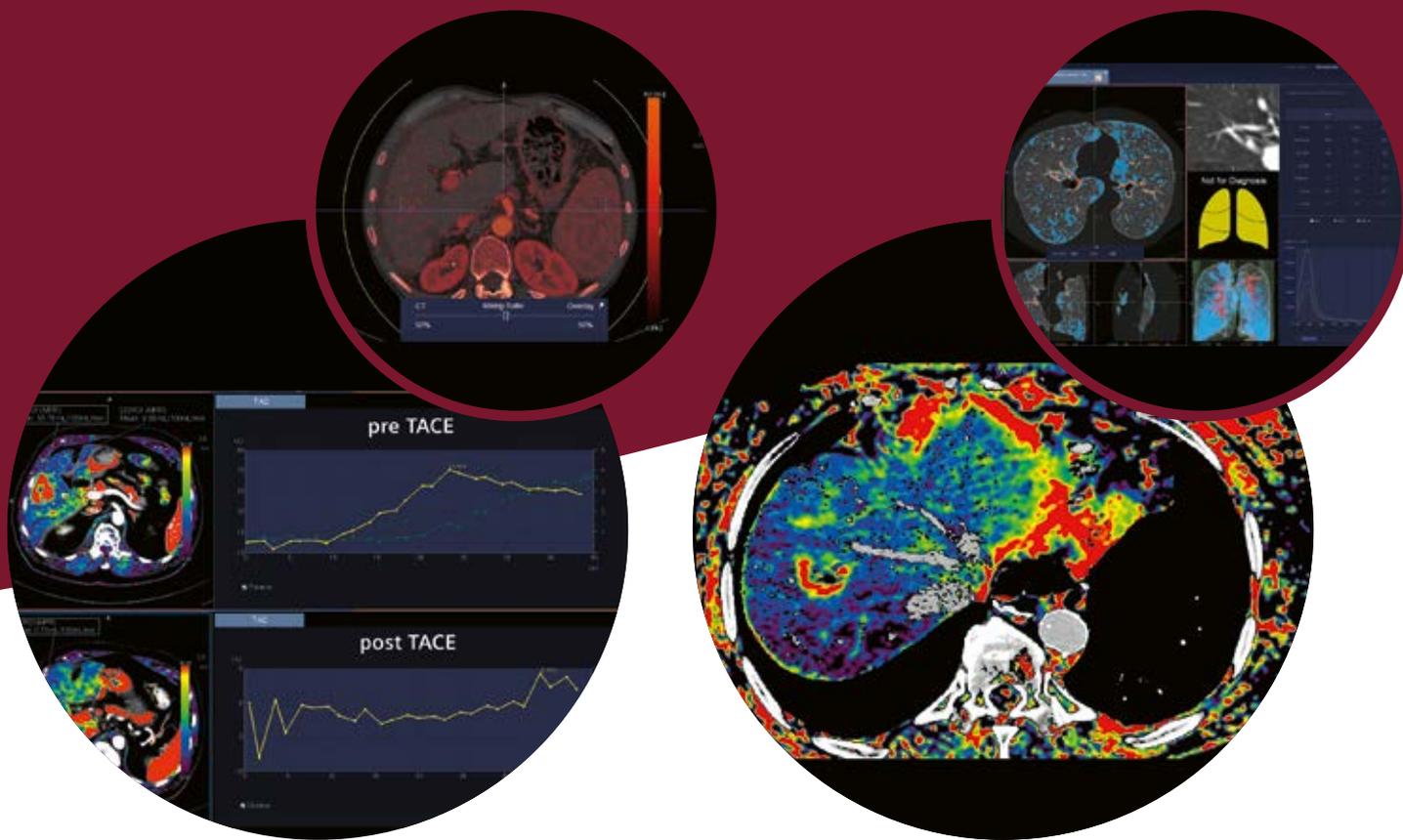
Rib and spine assessment redefined – speed up and streamline your diagnostic bone readings ***syngo.CT Bone Reading***

Why should there be only one way to assess bones in stacks of CT images? Scrolling back and forth and trying to stick to the point of interest? Choose a new method that is as simple as effective: You can see the bones “rolled” and displayed in a plain and easy-to-view way. Beyond standard image stacks and multiplanar reconstruction (MPR) displays, *syngo.CT Bone Reading* revolutionizes visualization – for completely new diagnostic insights. Complex anatomies are adapted to your reading needs. You can speed up and streamline your assessments of ribs and spine in every routine chest and abdominal CT scan. Read your images wherever you need to, thanks to Rapid Results.



Utilize the full potential of virtualization and quantification ***syngo.CT Liver Analysis***

How do you satisfy your referrers’ request for virtual planning and quantifying for complex liver surgery? In the operating room, there is usually no time for several approaches – so the right one should be known beforehand. It would be even better if several possibilities could be tried, and resected volumes precisely measured, in advance. *syngo.CT Liver Analysis* provides you with virtual scalpels to plan and measure potential interventions in liver surgery.



Analyze a tumor’s viability with contrast-enhanced dynamic CT
syngo.CT Body Perfusion

How do you decide whether a patient’s therapy is successful or not? And when? Modern oncological therapies show their potential at an early stage, long before the lesion changes in size. Therefore, the demand for ways to differentiate responders from non-responders is rising. *syngo.CT Body Perfusion* offers in-depth assessment of a tumor’s viability by looking into its perfusion and vascularization.

Streamline your workflow
syngo.CT DE Virtual Unenhanced

syngo.CT DE Virtual Unenhanced helps to characterize liver lesions by offering an enhanced and a virtual unenhanced image based on a single contrast-enhanced Dual Energy scan.

Assess liver functionality
syngo.CT Onco Function – Hepatic AEF

syngo.CT Onco Function – Hepatic AEF provides a dedicated color-coded visualization of arterial enhancement fraction (AEF) values calculated from routine abdominal multiphase CT. It enables assessment of the hepatic arterial perfusion ratio compared to the total perfusion.

Understand the whole picture in lung diseases
syngo.CT Pulmo 3D

syngo.via application for CT-based clinical assessment of lung diseases like Chronic Obstructive Pulmonary Disease (COPD) and associated lung emphysema. Provides automated evaluation and documentation by 3D quantification of the left and right lung, lung lobes, and automated segmentation and measurements of the trachea and associated bronchi.

Reading as simple as it should be

Rapid Results for Oncology

SOMATOM CT scanner



Why waste time in CT post-processing?

Rapid Results improves your efficiency by reducing your workflow steps:

Rapid Results in oncology enhances your reading time efficiency and improves your diagnostic confidence. It is available for Bone Reading and Lung CAD. In Bone Reading it helps you in any oncological case – for quick assessment of bone anatomies or to improve sensitivity

in spotting metastases. Combined with Lung CAD, Rapid Results enhances your efficiency in lung cancer screening and helps to standardize and automate the second reader process.

**syngo.via
server**

PACS



**Your Rapid Results benefits
with the CT Oncology Engine:**

1 Clinical innovations like
Dual Energy for routine exams
regardless of expertise level

2 Standardized and consistent
image quality independent of
operator

3 Post-processing becomes part
of the standard reconstruction
task

4 Ready-to-read results
wherever you are

Clinical cases: Courtesy of University of Erlangen, Erlangen, Germany; UMM, Mannheim, Germany; Cardioangiologisches Centrum Bethanien, Frankfurt, Germany; and PUMC, Beijing, People's Republic of China (PRC).

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Siemens Healthineers Headquarters

Siemens Healthcare GmbH
Henkestr. 127
91052 Erlangen
Germany
Phone: +49 9131 84-0
siemens-healthineers.com

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