GE HealthCare

Revolution™ EVO

Upgrade

There is so much more you can do with your Revolution EVO

Clinical and operational practices are evolving fast, driving challenges like higher exam volumes, stricter dose requirements and added procedures — all while preserving patient care and staff satisfaction.

As your needs shift, so should your scanner. With Revolution EVO, users can tackle emerging challenges and boost clinical and operational capabilities without buying new equipment.

A new era of imaging is here. The Revolution EVO is ready to lead the way.

Upgrade offering options

Console upgrade

Elite upgrade

Gen 5 upgrade


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Revolution EVO
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Revolution

A new console generation upgrade for your need for speed

Our next generation console is designed to enhance the performance and capabilities of your Revolution EVO

Improved reconstruction speed

Up to 70 fps
of improved image reconstruction speeds

40% faster
compared to the previous console

Image storage boosted

Simpler console data storage management

Up to 3x more images
can be stored on the console

Faster workflow

Faster workflow for **every kind of examination,** providing **shorter exams** and **better patient comfort**

Thanks to **faster image recon speeds,** you spend less time waiting for the whole exam completion, even for more complex procedures

Increased throughput

Faster image reconstruction speed help to **improve scan efficiency** and may help increase daily exam workload

Z8g5
1150 mm scan range
1840 images at 0.625 mm

115 sec
recon time with Z800

53 sec
recon time with Z820

27 sec
recon time with Z8g5

Revolution EVO Elite upgrade

Get faster and clearer results

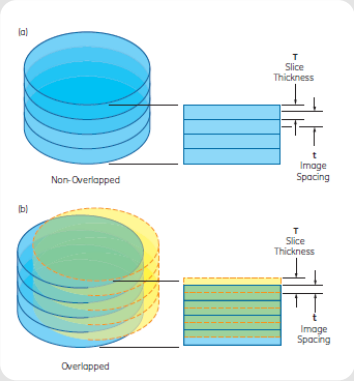
128 slices[1], 0.35 sec rotation speed

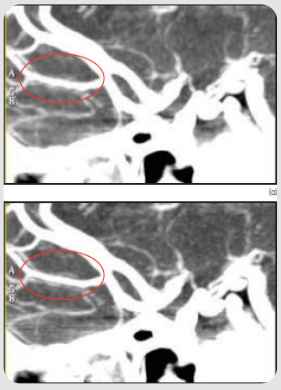
128 slices for 40 mm detector coverage

0.625 mm x 64 channels and overlapped reconstruction provides increased resolution

Improved performance in all clinical areas

0.35 sec rotation speed enabled for cardiac CT and pediatric, improving temporal resolution and minimizing artifacts





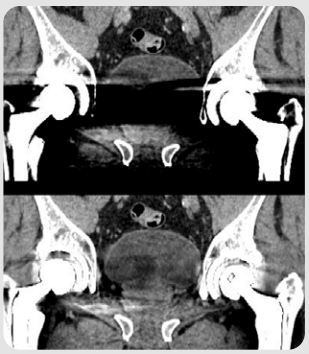
ASiR-V and Smart MAR

Up to 135%[2] improvement in LCD at the same dose

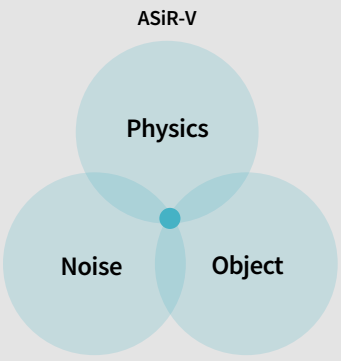
Up to 82%[2,3], dose reduction compared to standard FBP at the same image quality

Up to 107%[2] spatial resolution improvement at same image noise

Smart MAR (Metal Artifact Reduction) helps reduce beam hardening and streak artifacts caused by metal in the body



Smart MAR



Increase resolution up to 2x[2]


Revolution

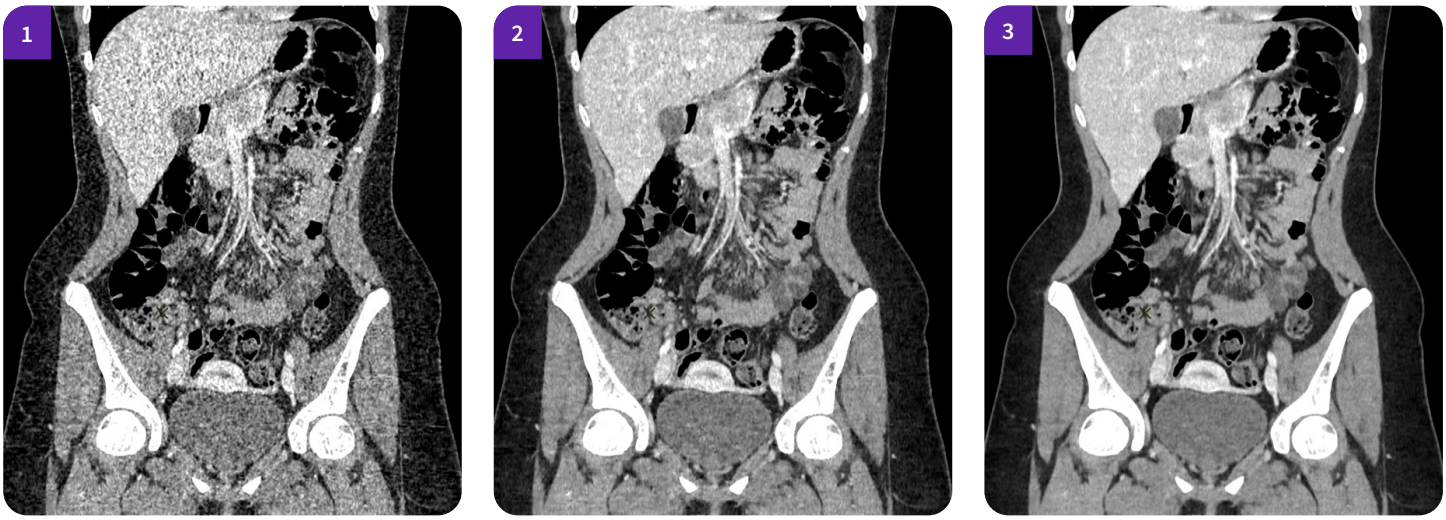
Enter in the era of deep learning image reconstruction

TrueFidelity™ DL

Deep learning for a deeper understanding

TrueFidelity DL is our state-of-the-art AI-based image reconstruction technology that uses a Deep Neural Network (DNN) to generate high-definition, low-noise CT images. It produces images with exceptional sharpness, low-contrast image quality performance and your preferred noise texture, at the same dose.[4]

1. Filtered Back Projection (FBP)
2. ASiR-V 40%
3. TrueFidelity DL-M



How we designed and trained our deep learning image reconstruction[5]

Deep neural network design

We designed our deep neural network based on our 40+ years of knowledge in CT reconstruction

Our neural network can learn CT image quality features from our carefully curated training data

Ground truth training data selection

Two categories of training data were carefully selected

High dose FBP phantom images with ground truth

High fidelity FBP clinical images

Supervised training

Trained to apply knowledge for every aspect of CT image quality

Low contrast detectability

Image noise and noise power spectrum (NPS)

High-contrast spatial resolution

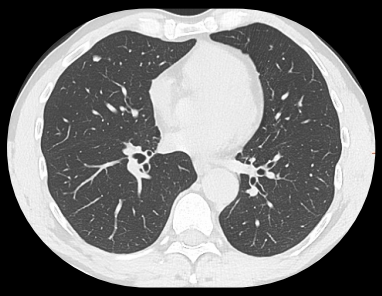
CT number uniformity

CT number accuracy

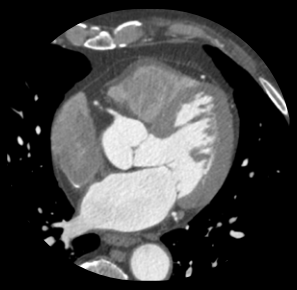
Artifacts suppression

TrueFidelity DL for your examinations

Neuro
Improved gray/white matter differentiation



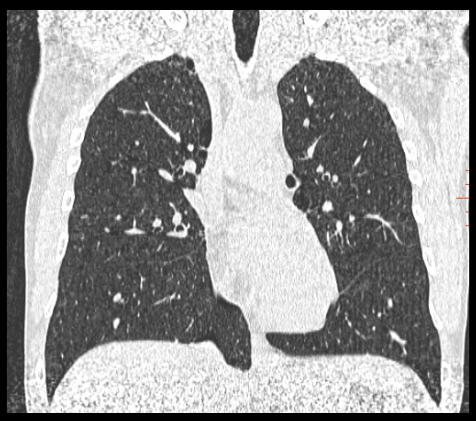
Chest
Removed noise with superior CNR allowing for better detectability



Cardiac
Less noise for improved image clarity

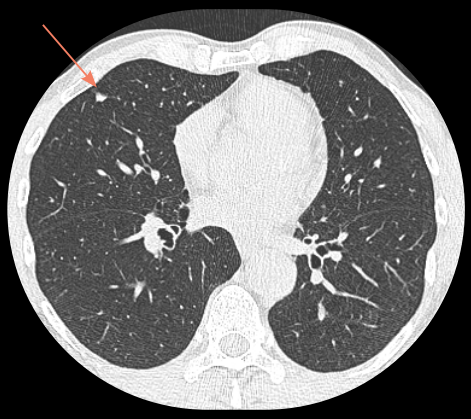
Abdomen
Great depiction of details in low contrast imaging tasks

Low dose chest

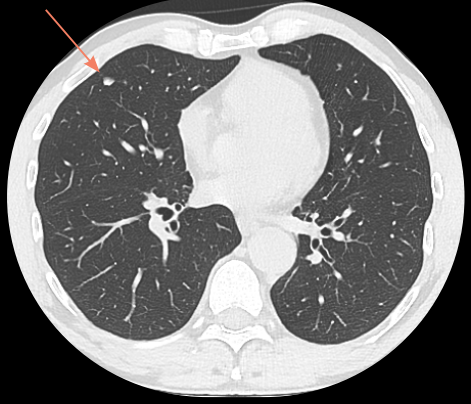


ASiR-V 40%

TrueFidelity DL



ASiR-V 40%



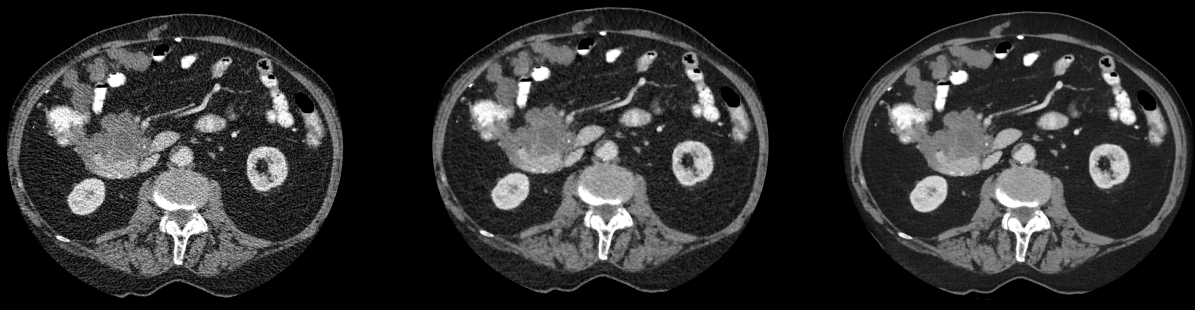
TrueFidelity DL

CT brain without contrast injection

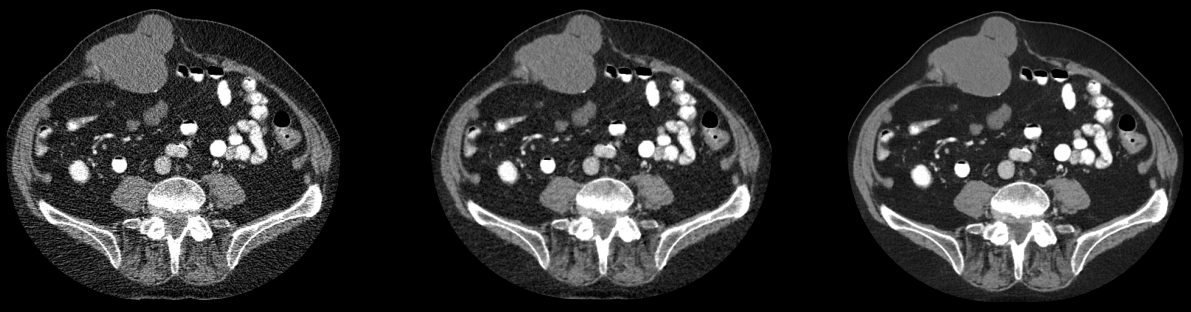
FBP | ASiR-V 60% | TrueFidelity DL

FBP | ASiR-V 60% | TrueFidelity DL

CT abdomen/pelvis, pancreatic mass

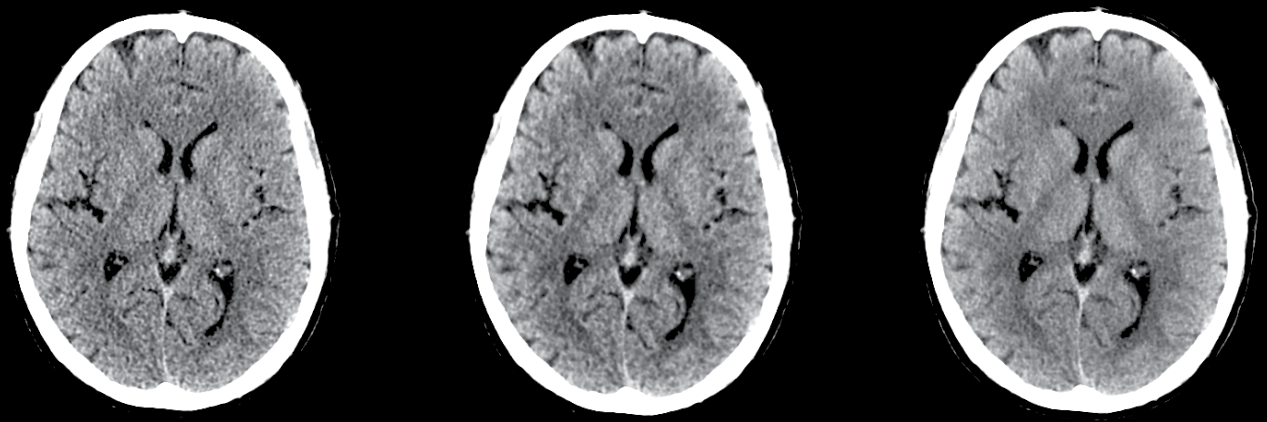


FBP | ASiR-V 50% | TrueFidelity DL



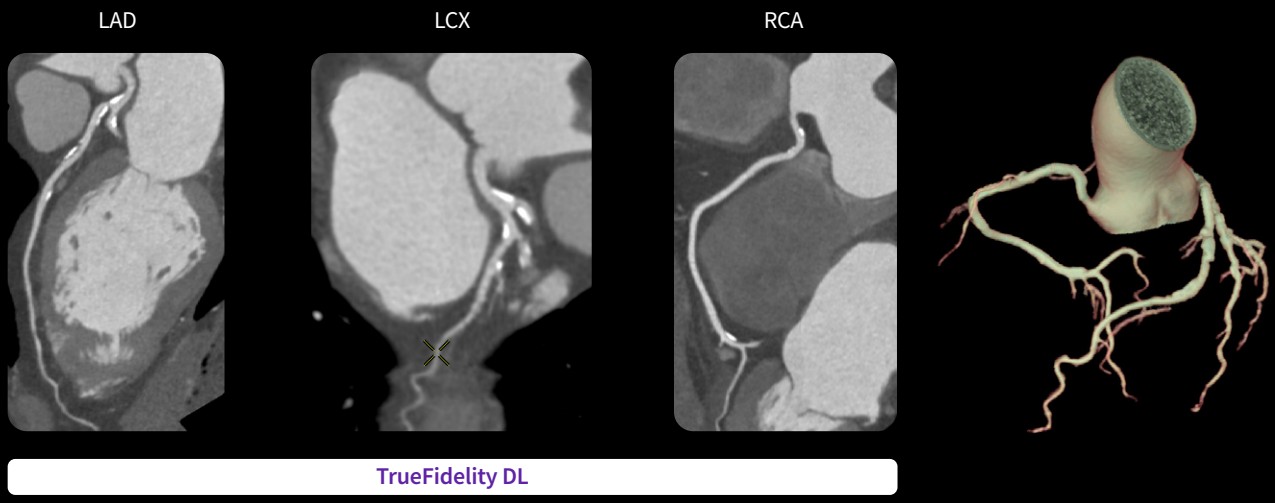
FBP | ASiR-V 50% | TrueFidelity DL

Routine head with TrueFidelity DL



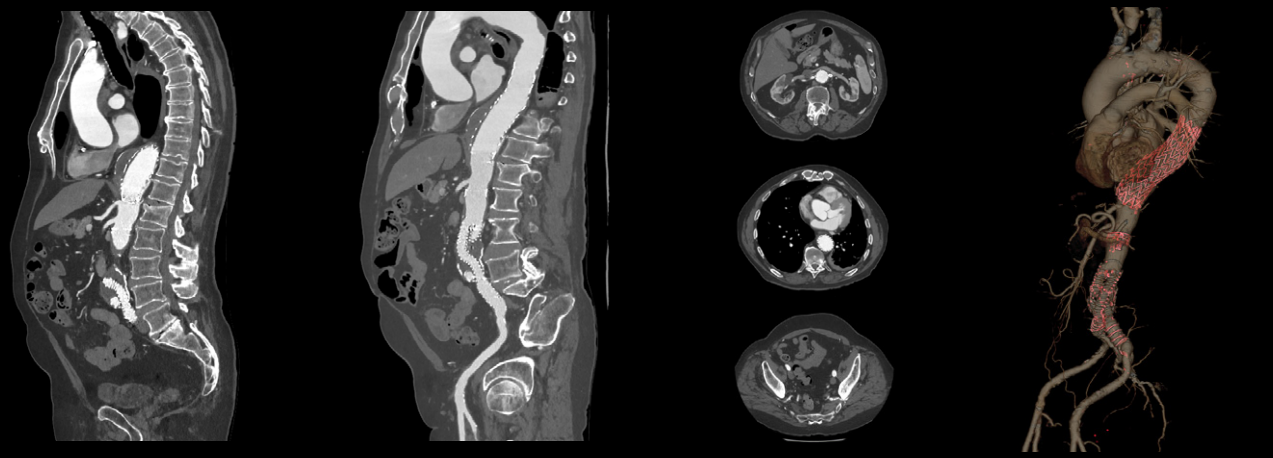
FBP | ASiR-V 60% | TrueFidelity DL

CCTA with TrueFidelity DL

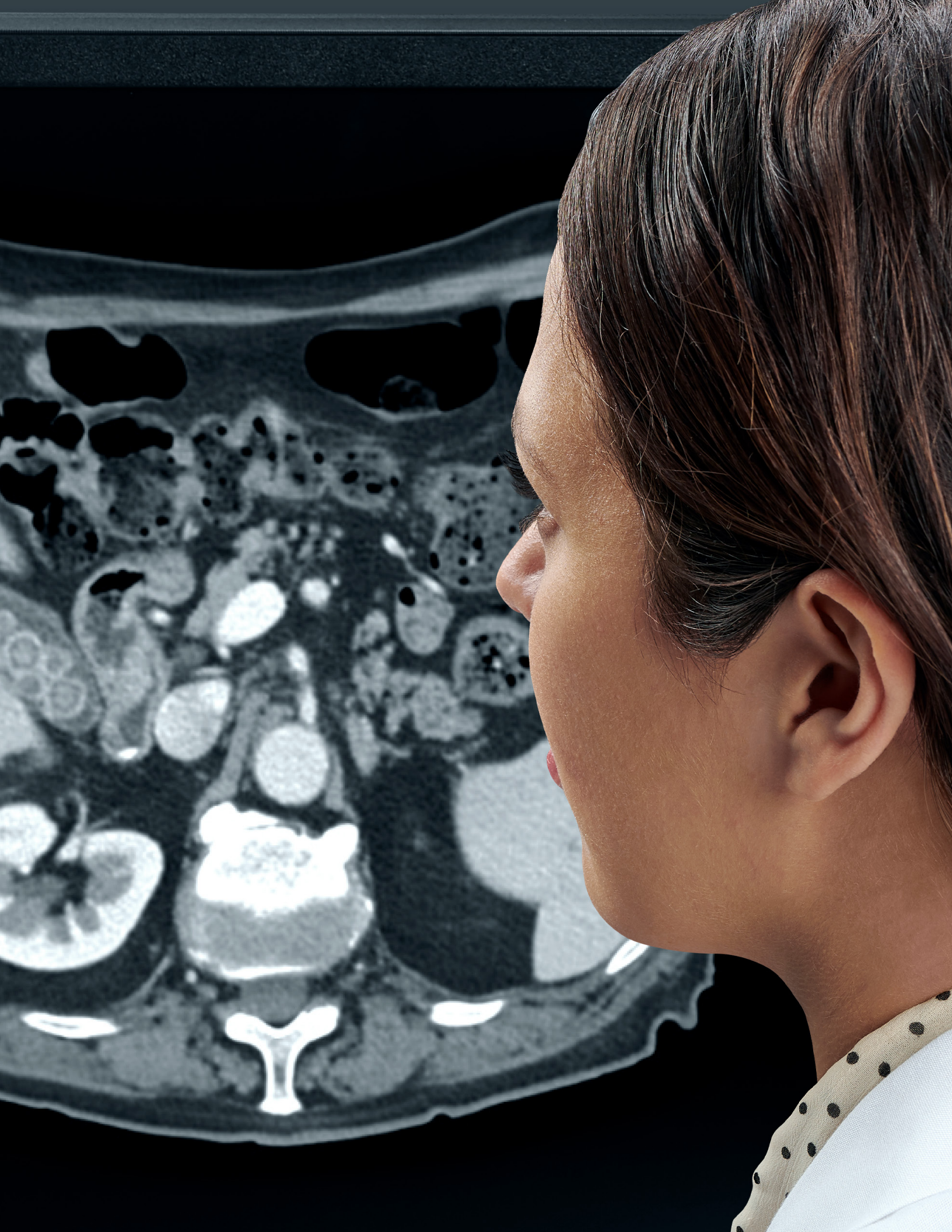


TrueFidelity DL

Gated CT aorta post-stent graft at 70 bpm



TrueFidelity DL



Remain at the forefront of innovation in CT with the EVO gen 5 upgrade

CT Smart Subscription for a CT that keeps getting better

GE HealthCare's subscription-based service for CT helps you keep your computing platform and software up to date and keep pace with clinical and workflow innovations by providing the latest upgrades and updates to your CT capabilities[6].

Keep pace with clinical and workflow innovations by providing the latest upgrades and updates to your CT capabilities as soon as they're available[7].

Pick the plan that's right for you. Smart Subscription includes a broad range of application packages across many different imaging services, giving you the flexibility to choose how you want to expand your CT capabilities.

CT

Revolution EVO

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Smart Subscription Unlimited

Continuity Premium

Recon & IQ
TrueFidelity DL
ASiR-V
Smart MAR

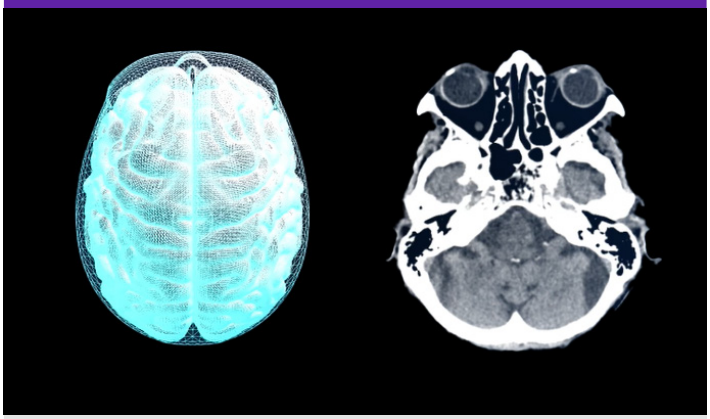
Cardiology
SnapShot Freeze 2
CardIQ Xpress 2.0
Reveal
SmartScore 4.0

General Imaging
Spine Auto Views
Head Auto Views
Bone VCAR
VessellQ Xpress with AutoBone Xpress

Neurology
FasteStroke with StrokeSENS[7]
Send by email
Auto Batch
CT Perfusion 4D Neuro
Dynamic Shuttle

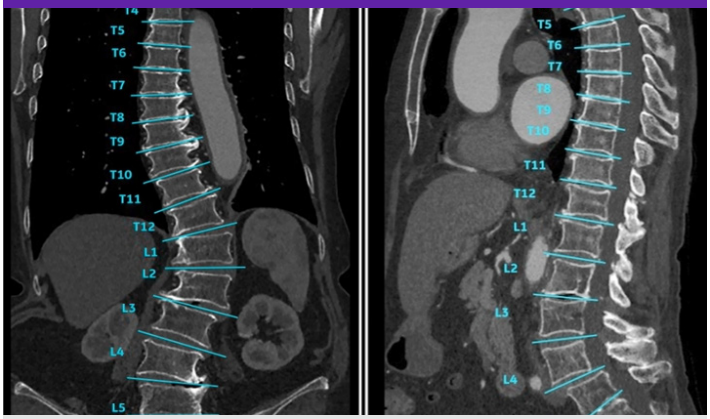
Designed to automate your image post-processing and facilitate results sharing with a fully automated workflow

Head Auto Views[9]



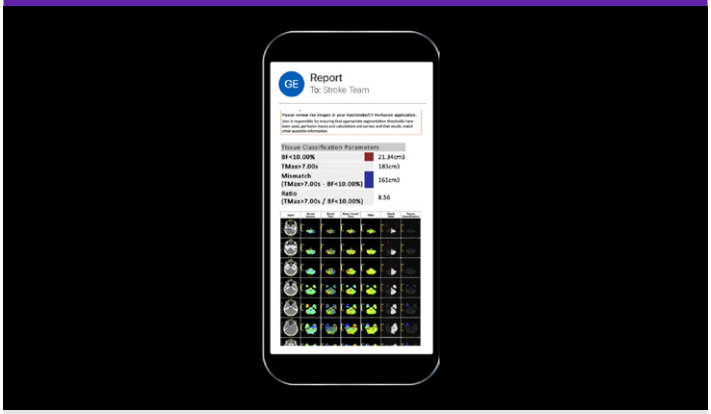
Automatically generate anatomically aligned head reformatted views

Spine Auto Views[9]



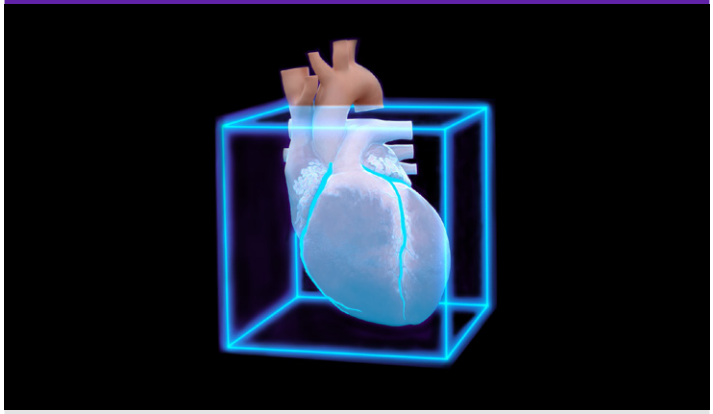
Automatically generate anatomically aligned and labeled spine reformatted views

FastStroke with StrokeSENS[8,9]



Automatic processing of ischemic stroke cases and emailing results

SnapShot Freeze 2[9]



Automated whole heart motion correction

About GE HealthCare Technologies Inc.

GE HealthCare is a leading global medical technology, pharmaceutical diagnostics, and digital solutions innovator, dedicated to providing integrated solutions, services, and data analytics to make hospitals more efficient, clinicians more effective, therapies more precise, and patients healthier and happier. Serving patients and providers for more than 100 years, GE HealthCare is advancing personalized, connected, and compassionate care, while simplifying the patient's journey across the care pathway. Together our Imaging, Ultrasound, Patient Care Solutions, and Pharmaceutical Diagnostics businesses help improve patient care from diagnosis, to therapy, to monitoring. We are a $19.6 billion business with 51,000 colleagues working to create a world where healthcare has no limits.

Follow us on LinkedIn, X (formerly Twitter), and Insights for the latest news, or visit our website https://www.gehealthcare.com/ for more information.

References:

[1] The overlapped reconstruction feature enables 128 slices per rotation in Axial scanning modes and delivers improved Z-axis visualization performance relative to non-overlapped reconstruction.

[2] In clinical practice, the use of ASiR and ASiR-V 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. Low Contrast Detectability (LCD), Image Noise, Spatial Resolution and Artifact were assessed using reference factory protocols comparing ASiR-V and FBP. The LCD measured in 0.625 mm slices and tested for both head and body modes using the MITA CT IQ Phantom (CCT183, The Phantom Laboratory), using model observer method.

[3] Image quality as defined by low contrast detectability.

[4] Image quality comparisons were evaluated by phantom tests of MTF, SSP, axial NPS, standard deviation of image noise, CT Number accuracy, CNR, and artifact analysis. Additionally, LCD was demonstrated in phantom testing using a model observer with the head and body MITA CT IQ Phantoms (CT191, CT189 The Phantom Laboratory). DLIR-H and ASiR-V reconstructions were performed using the same raw data.

[5] From GE HealthCare TrueFidelity DL – Technical White Paper (JB33198XX)

[6] Software available to customer is dependent on the software package purchased by customer

[7] Commercial availability may vary from regions to regions

[8] StrokeSENS™ is legally manufactured by Circle Neurovascular Imaging, Inc. StrokeSENS is not available for sale in all countries.

[9] Note that some applications may not be available in all countries and package content and availability may vary depending on CT systems.

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