Caring for you

NeuViz Prime/Y 21.10

Stand-by
19:31

Neusoft

NeuViz Prime

Acceleration NEVER ends

Neusoft Medical Systems

Advanced, Value-Rich CT Technology

A growing number of patients are waiting for CT scanning, but CT scanners are expected to have "no" wait and "no" limitations on any procedures. This is the vision of all the CT manufacturers.

The NeuViz Prime, a high-end CT scanner which contains an advanced hardware platform and leading software technology, is designed to meet the needs of emergency patients and complex clinical procedures, even Spectral Imaging.

0.259s rotation time
Top speed acquisition

Uncompromised by heart rate
25ms temporal resolution
Easy for high heart rate patients

Unlimited X-Ray Tube heat capacity
(Effective anode heat content is 30MHU)
Ultra-strong scanning capability and very long lifetime
No need to warm up

Ultra-HD imaging - 30lp/cm@0%MTF
See the unseen

Unique 60kV scanning
Care more for pediatric patients

Upgradable to Spectral Imaging
Anatomical to functional imaging
Uncover more pathophysiological information

Acceleration NEVER ends

0.259s

Uncompromised by Heart Rate

With brand-new gantry design and patented 10GB/s HIFI data transmission technology, NeuViz Prime enables 0.259s per rotation, which is desirable in many clinical applications, especially cardiac scanning.

### Female, 45 years old, 101 bpm, can't hold breath

Mean HR:101
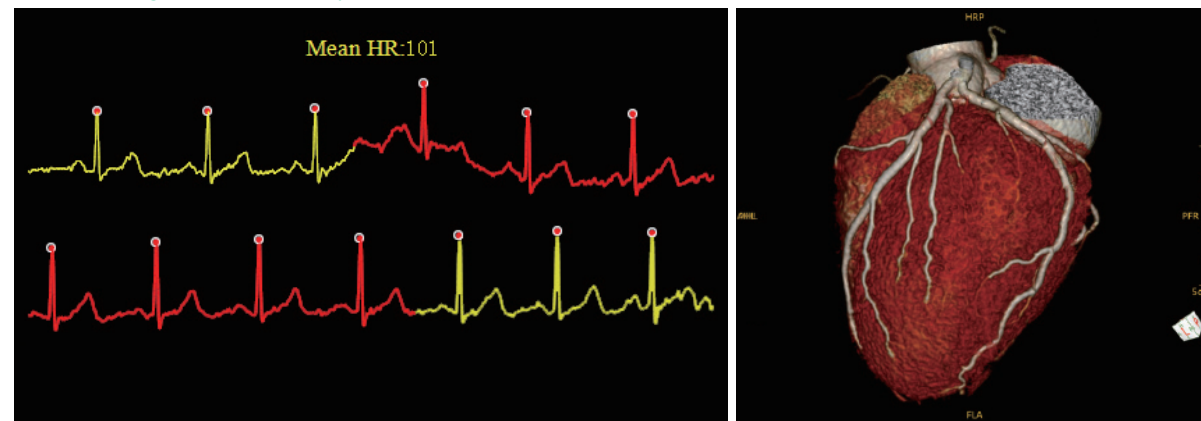
ECG edit, automatically selects best cardiac phase

75%

50.5%
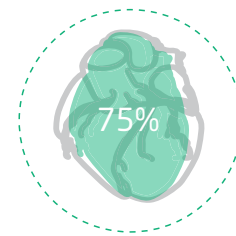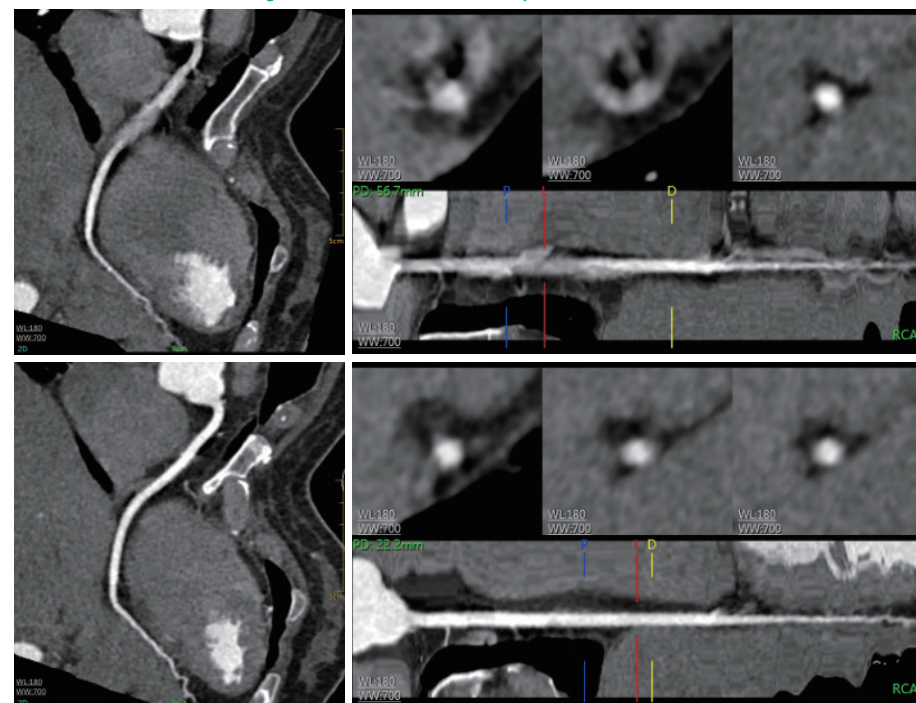
Arrhythmia Handling

Intelligent cardiac scanning is able to automatically filter out arrhythmic signals and ensure a successful coronary artery exam. The coronary artery can be segmented, recognized, extracted, named, measured and analyzed automatically. It makes complex exams simple.

Female, 56 years old, 72 bpm
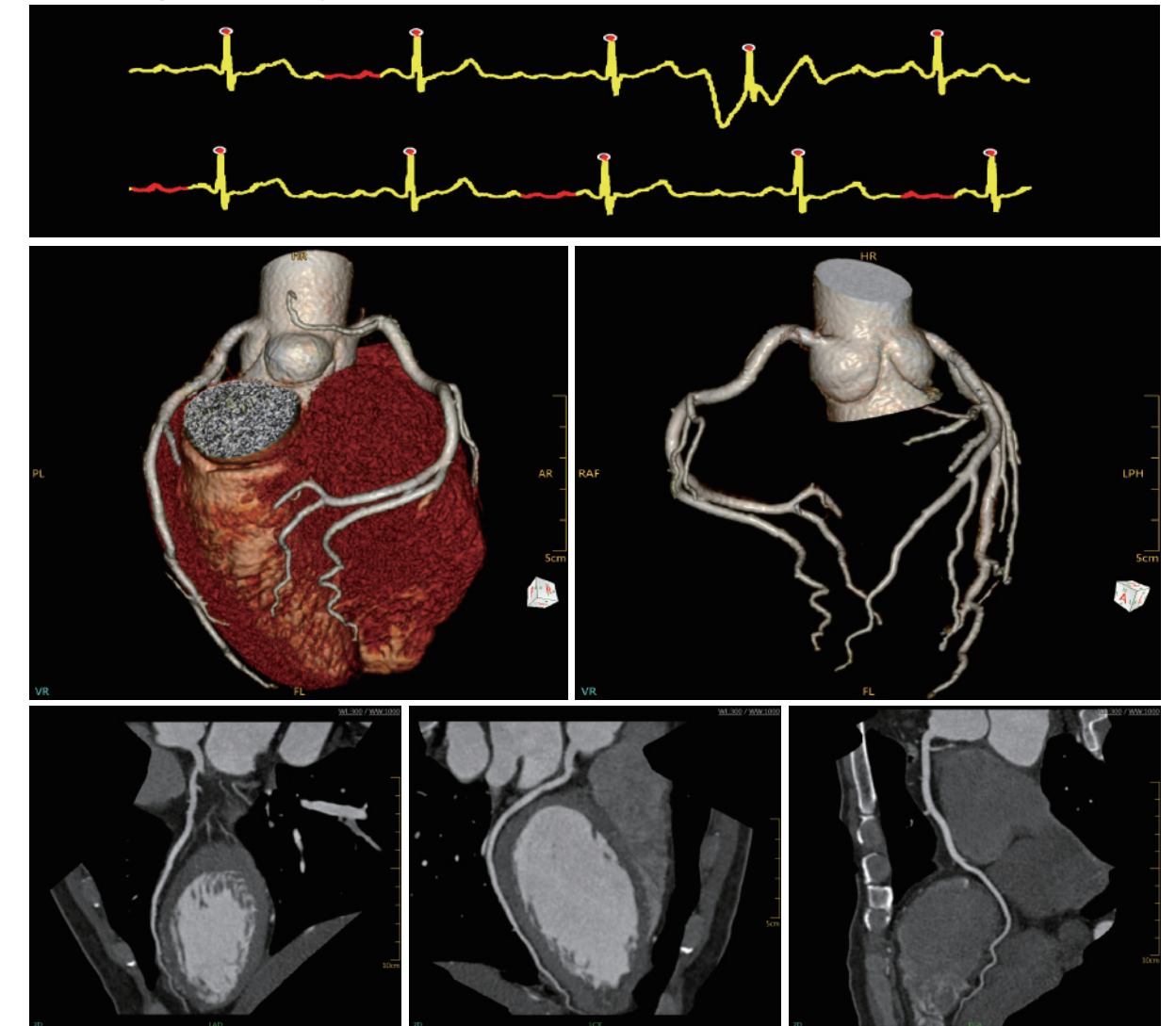
Unlimited X-Ray Tube Heat Capacity
(Effective anode heat content is 30MHU)

Developed to End Waiting

Cutting edge cooling technology with liquid streaming design keeps rotating anode cool for an extended period. This is beneficial for large patient throughput and complex procedures like Spectral Imaging.

liquid coolant
Carries heat away from anode
for high power, short shot scanning
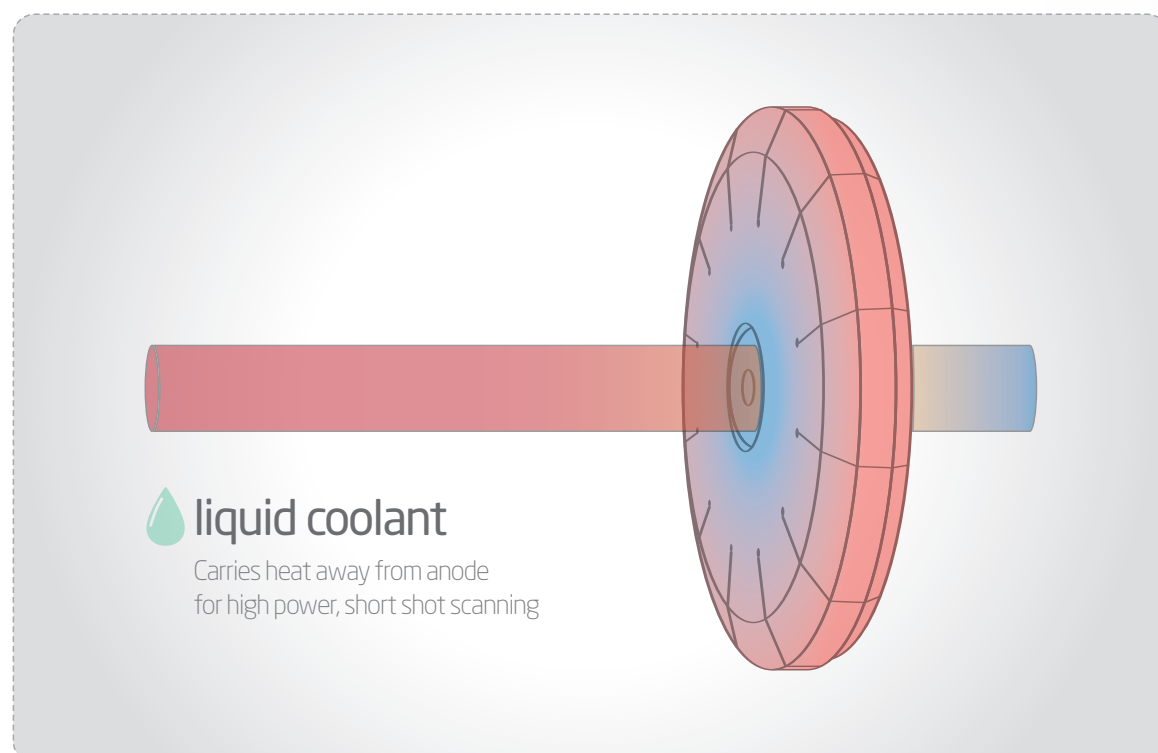
No need to warm up
No need to wait for the X-Ray Tube to cool down
Emergency patients can be scanned immediately

EM

Ultra-HD Imaging

30lp/cm@0%MTF Spatial Resolution

iHD
Through iHD technology, spatial resolution can achieve 30lp/cm@0%MTF.

Micro focal spot
With 0.4mmx0.7mm focal spot, spatial resolution is significantly increased.

HD

By dynamically moving the focal spot axially and longitudinally, sampling density is increased to 400%.This means improved resolution, reduced artifact and extended scanning range .
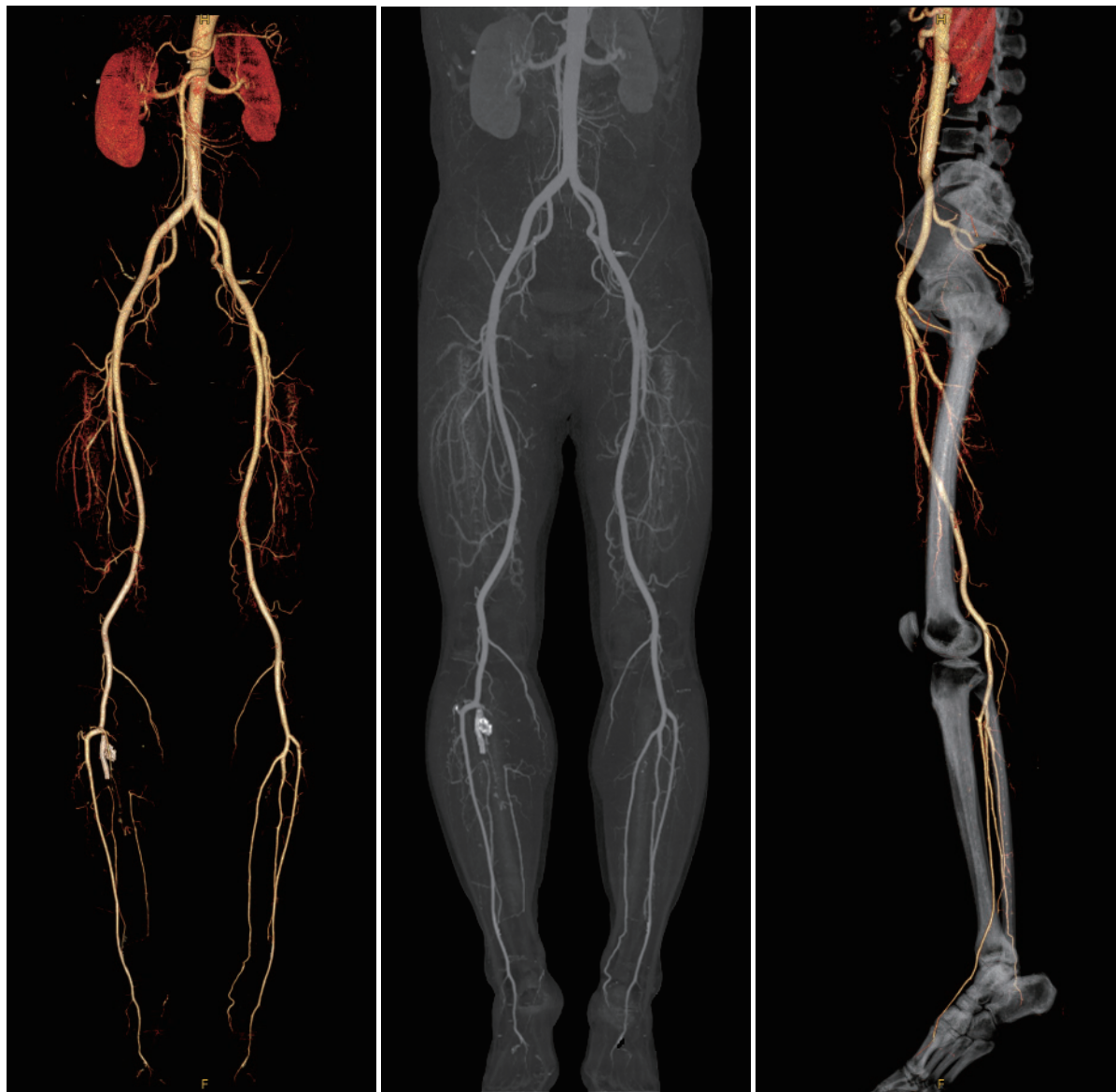
Quad-sampling

Compared with 512 matrix imaging, 1024 matrix imaging can provide 4 times more lesion information, which is necessary for lung nodule and inner ear studies.
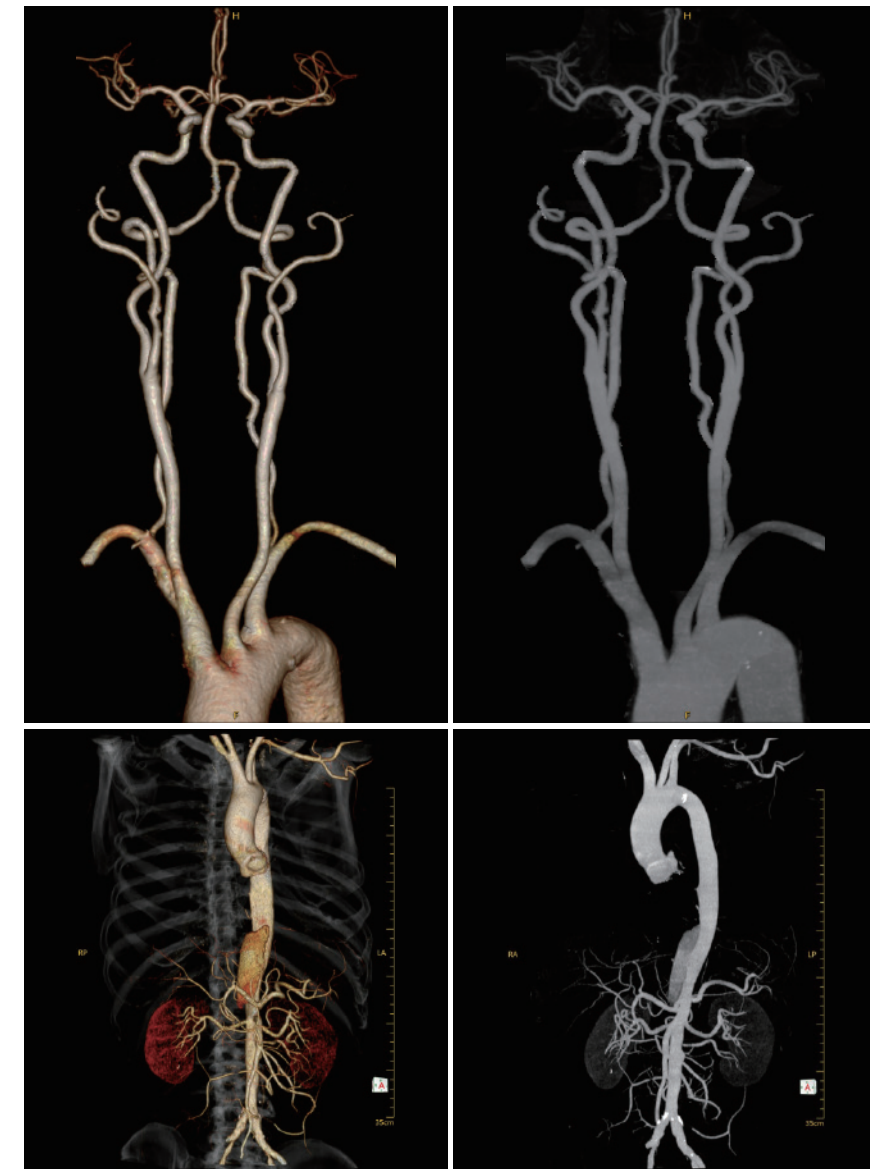
1024 matrix

Inner Ear

Ultra-HD Imaging
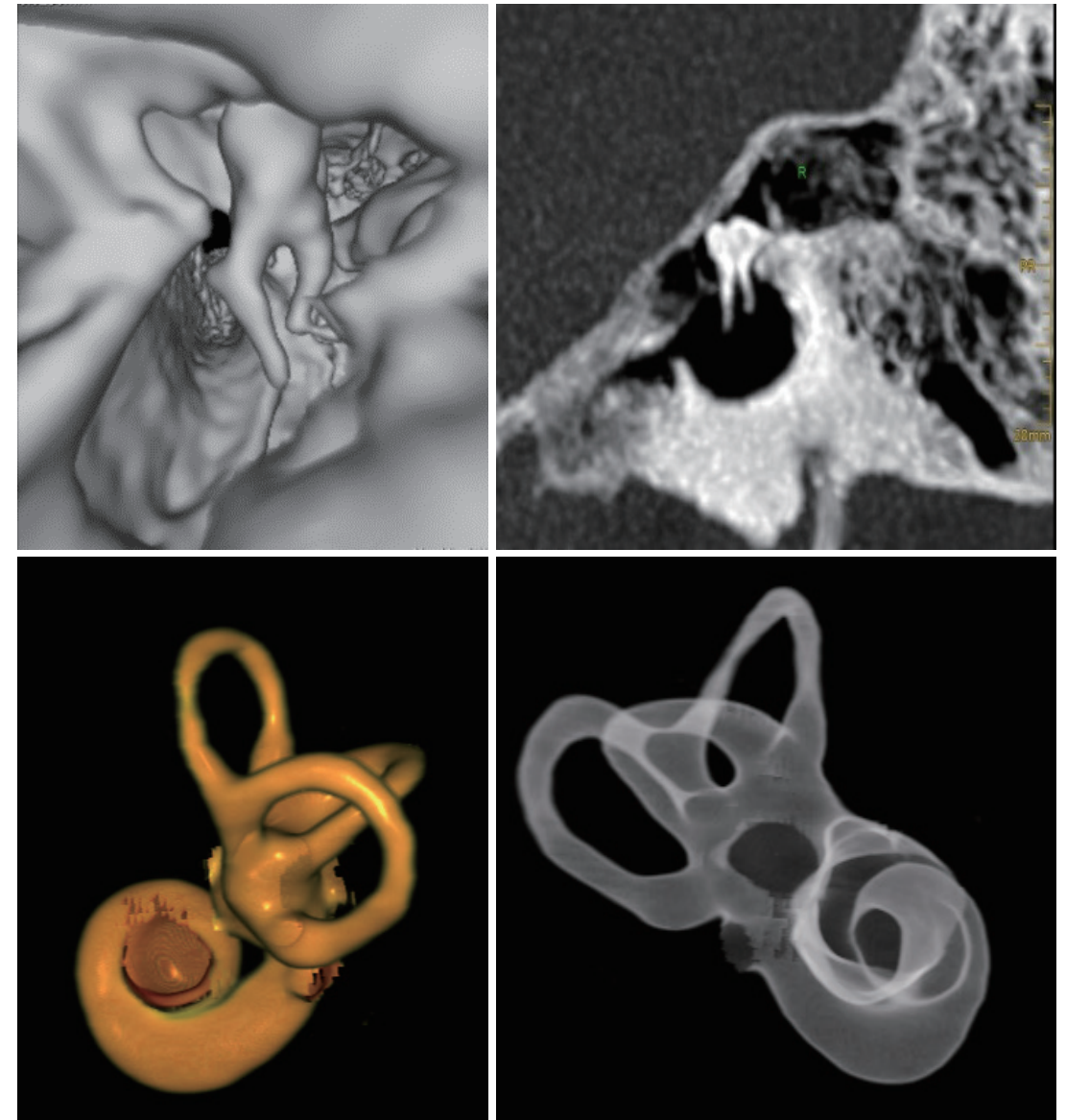
CT Angiography

CT Angiography

Ultra-HD Imaging
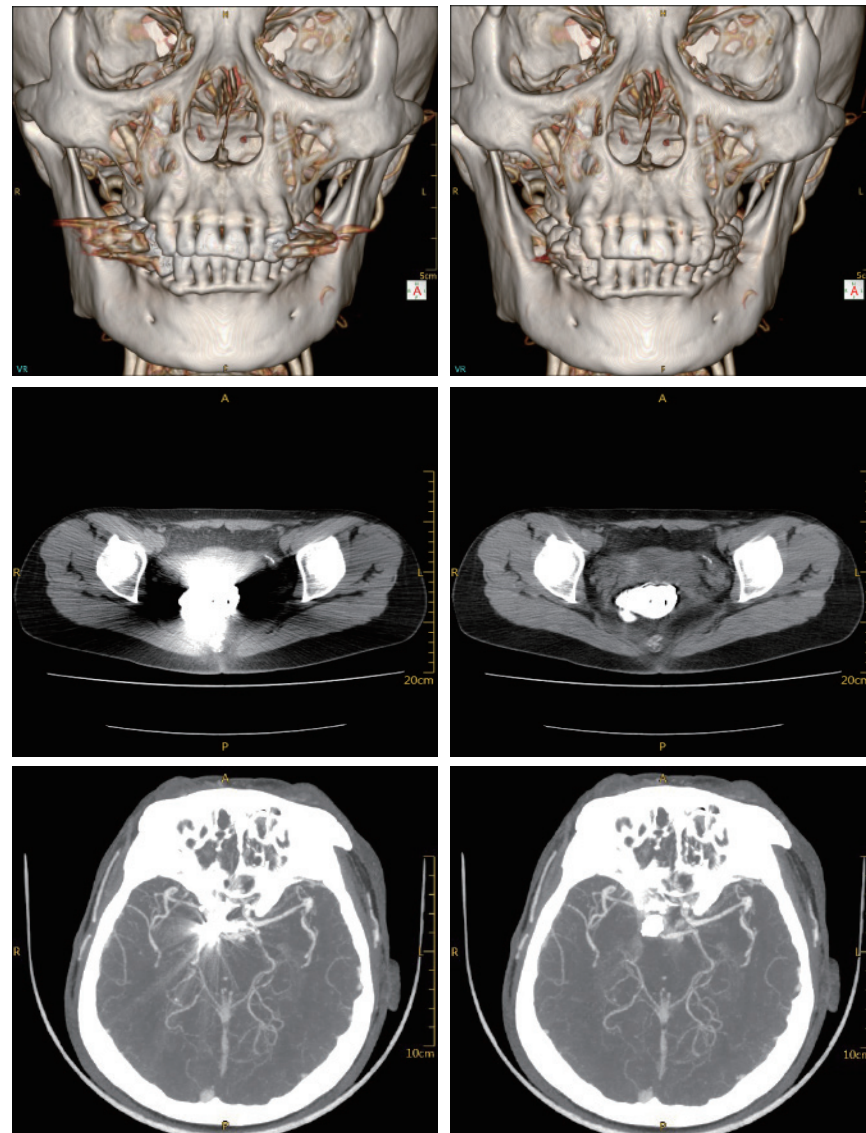
MAR+

Automatically indentifies and filters out metal raw data. Through an iterative correction algorithm, it eliminates metal artifact, greatly improving visualization of implants such as dental, caput femoris, etc.
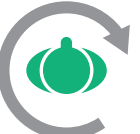
MAR+
OFF

MAR+
ON

Stand-by

⏱ 19:26

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Low Dose Design

NeuViz Prime

O-Dose Platform

Unique 60kV scanning
Maintaining contrast concentration while reducing radiation dose.

240º degree exposure
Dose to the patient and attending physician reduced.

Organ-Safe
Reduces dose to radiosensitive organs such as eyes, thyroid and breasts.

Pediatric protocols
Not "scaled down" adult protocols, designed specifically for pediatric anatomy.
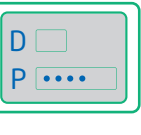
New detector design
Modular design delivers 99.99% X-Ray conversion efficiency, meaning that a lower dose is necessary to deliver excellent image quality.
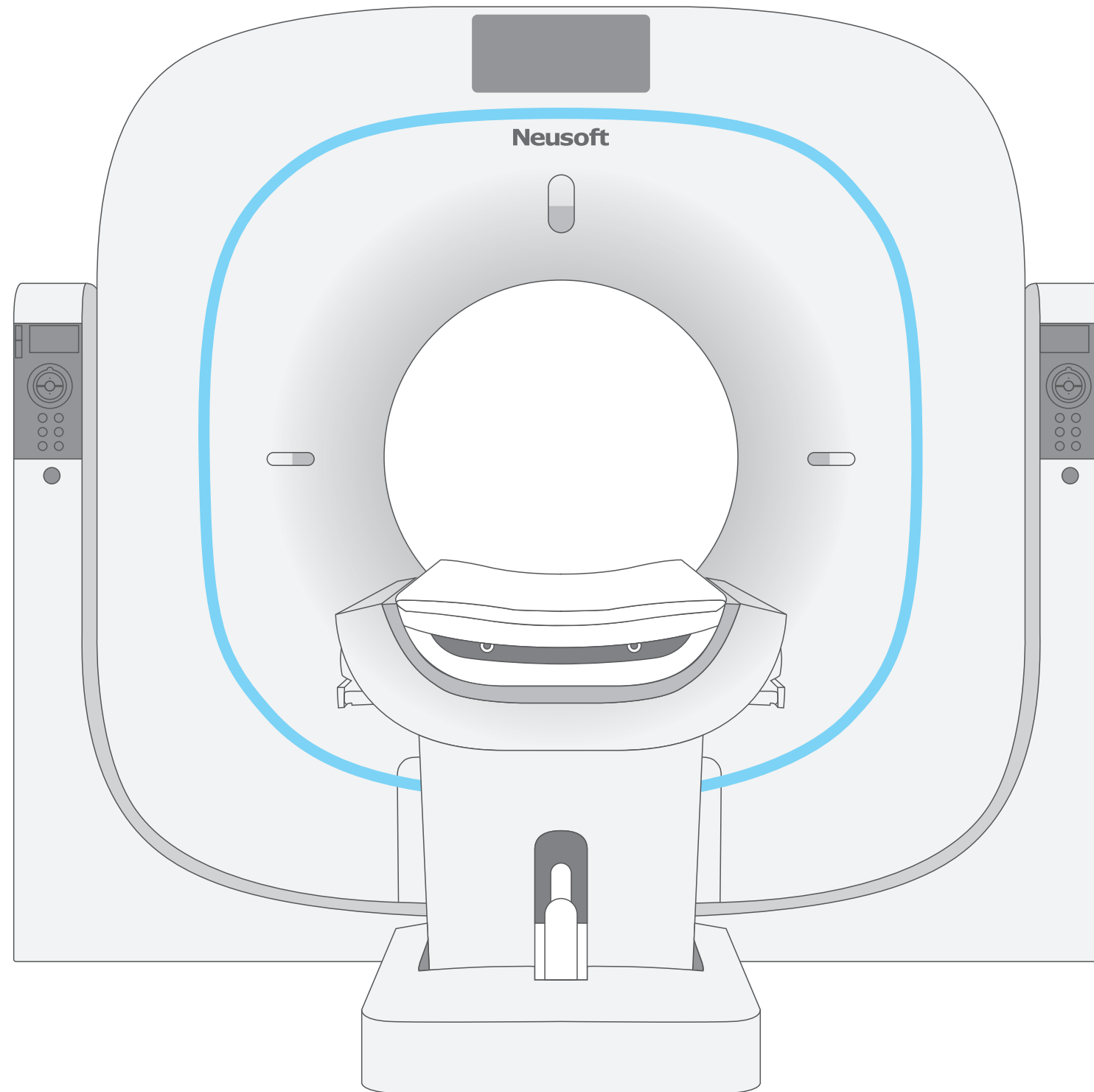
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Auto SFOV
Automatically changes SFOV based on target organ and scan protocols, requiring a lower radiation dose.

Auto

ClearView
Advanced Iterative Reconstruction Algorithm that reduces dose and maintains diagnostic quality.

Dose Check
With full implementation of "Dose Check", patient cannot be over radiated.

3D dose modulation
Tube current modulated based on the anatomy in the scan field, providing an anatomically optimized dose.

ECG dose modulation
Reduces tube current during non-imaging phases of cardiac cycle to minimize patient dose.
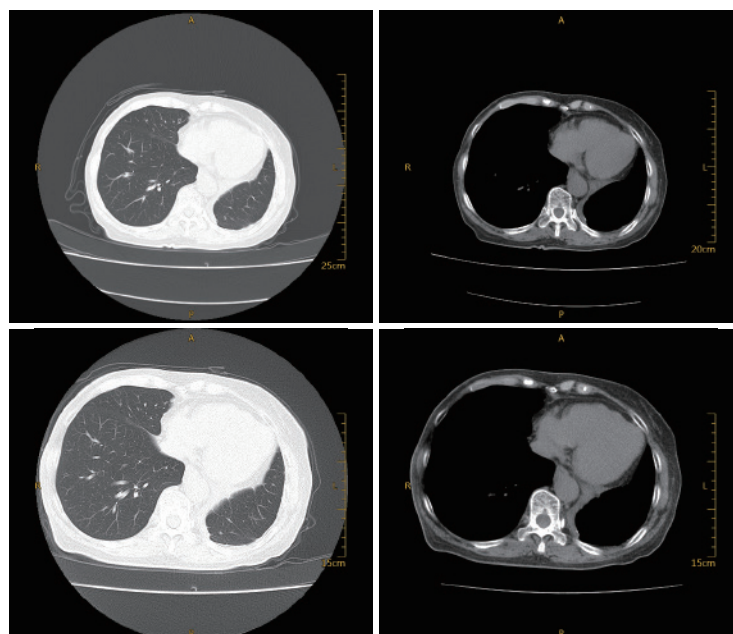
13

14

Low Dose Design

ClearView

By performing iterative image processing operations in both projection and image spaces, noise and artifact which often accompany low dose acquisition can be removed. This is done without reduction in image detail.
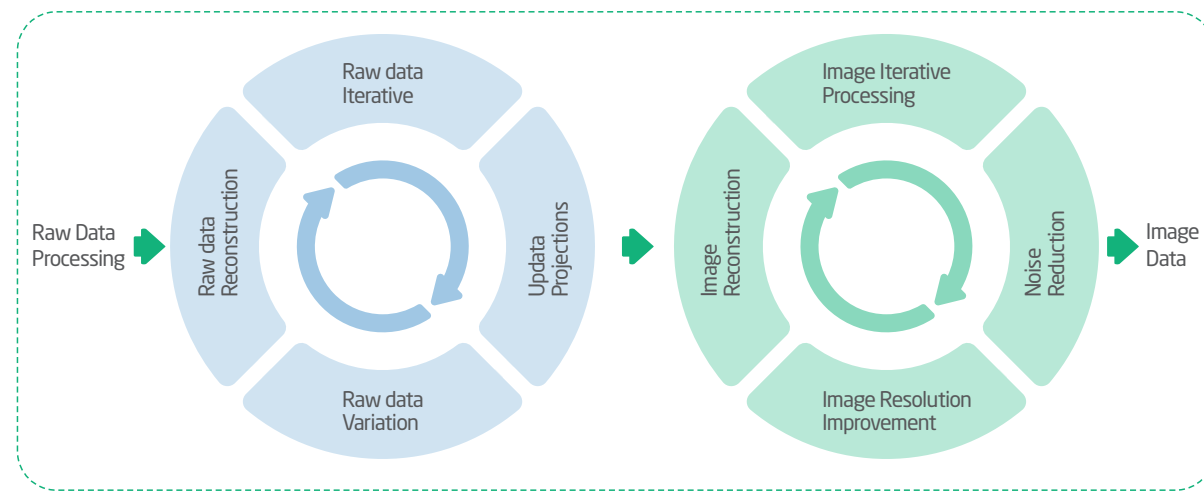
Auto SFOV

Automatically changes SFOV based on target organ and scan protocols, requiring a lower radiation dose.


Large SFOV
120kV 180mA
2.9mSv

Middle SFOV
100kV 160mA
1.7mSv

60kV Pediatric Image

60kV provides clinical breakthroughs on low dose scanning, with the advanced lung image reconstruction algorithm, lower radiation dose is achieved without compromising to image quality. It's significantly beneficial for pediatrics, lung cancer screening and renal failure patients.
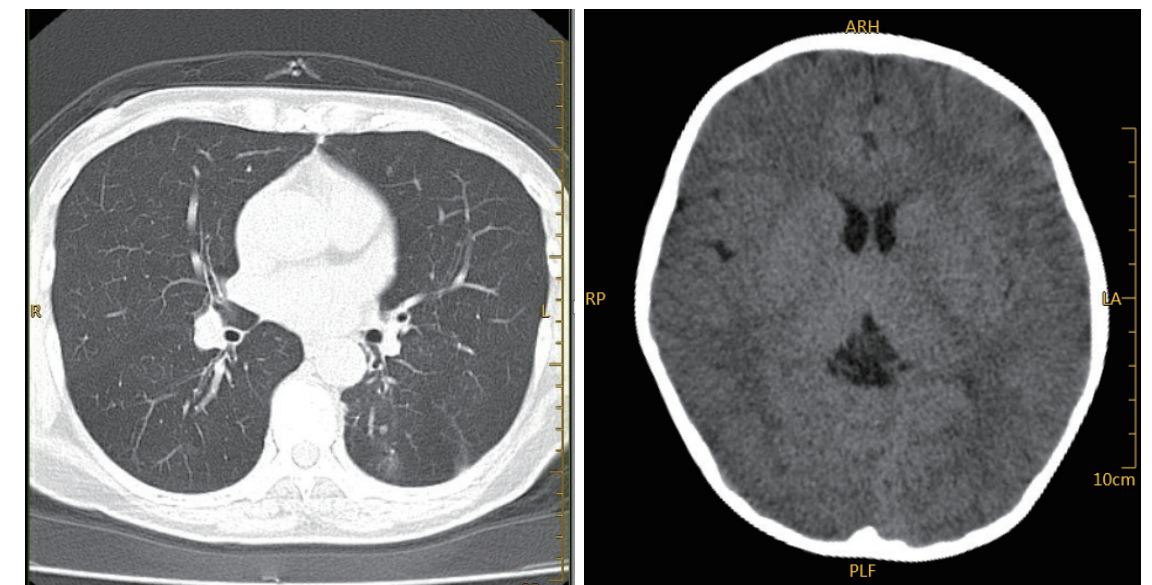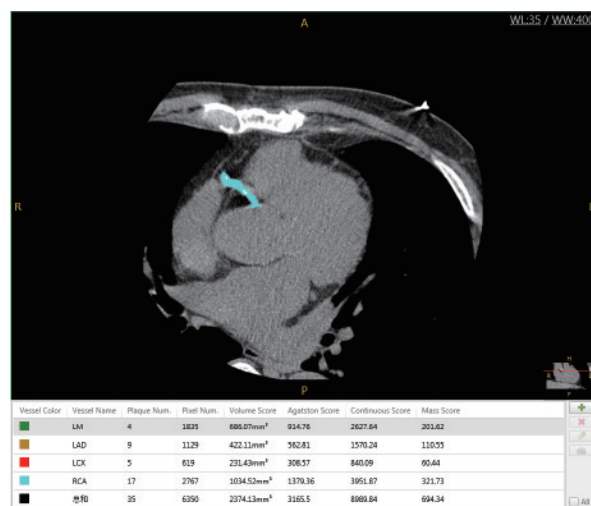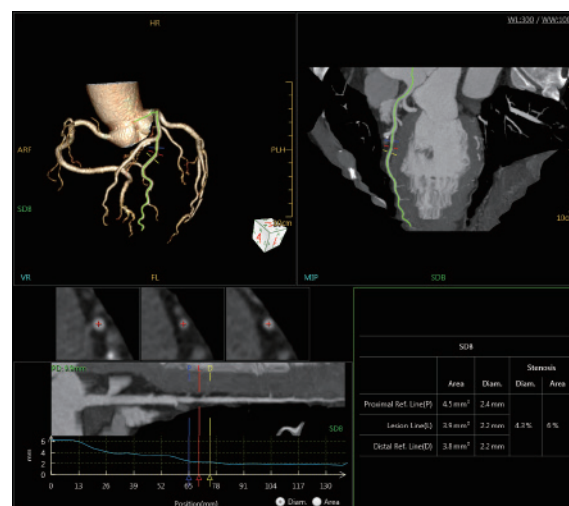

60kV

60kV
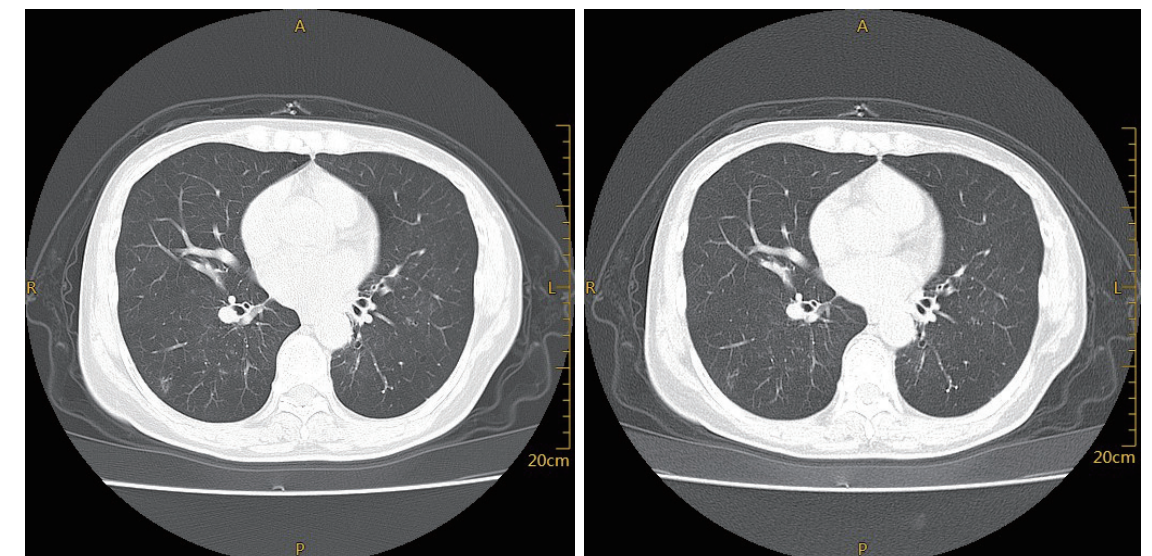
120kV

60kV

Full Range of Clinical Applications
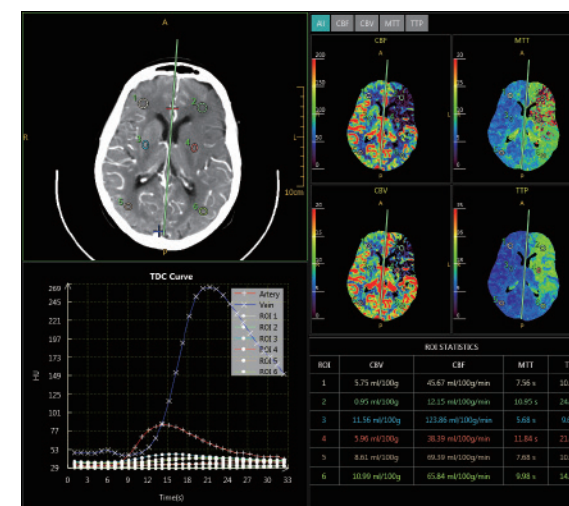
Cardiac Solutions

Cardiac Calcium Scoring

Coronary Analysis

Cardiac Function Analysis

Plaque Analysis

Perfusion Solutions
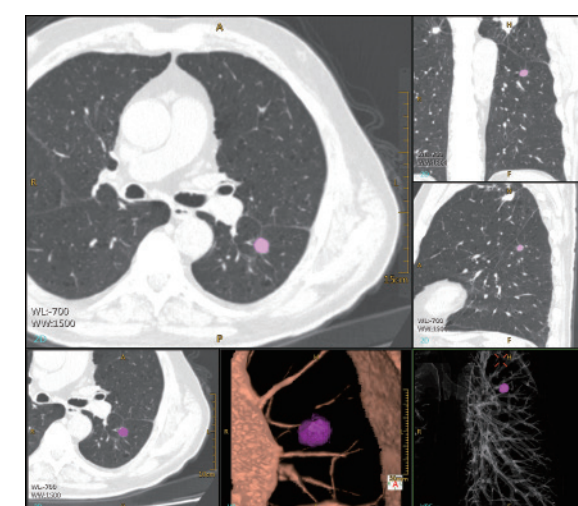

Brain Perfusion

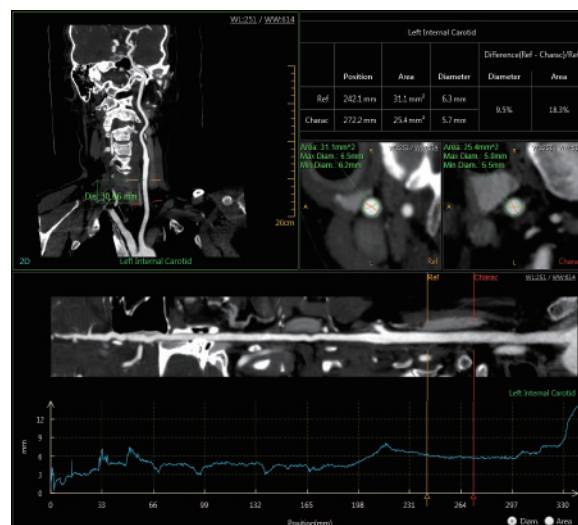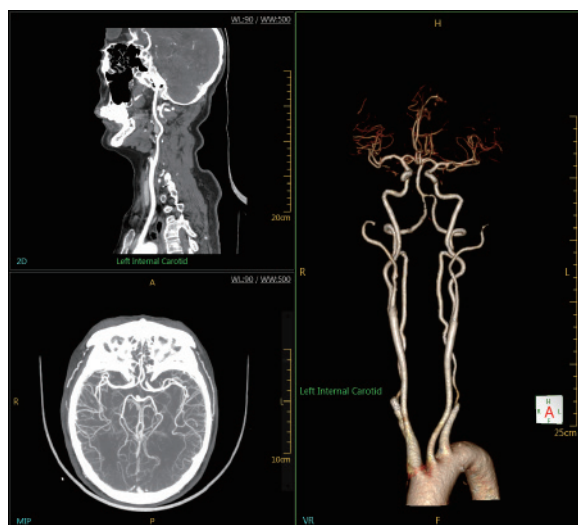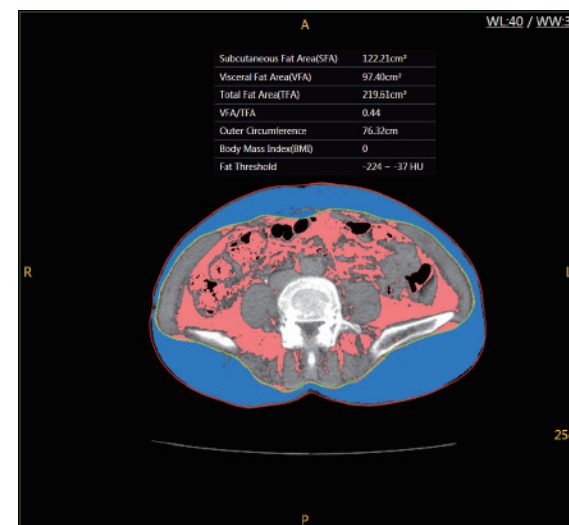Body Perfusion
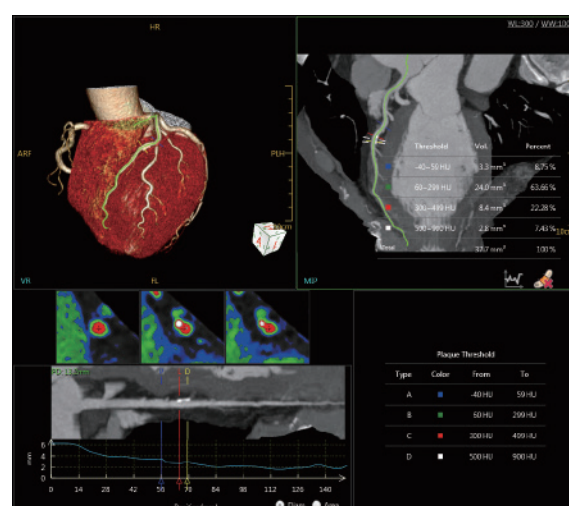
Lung Solutions
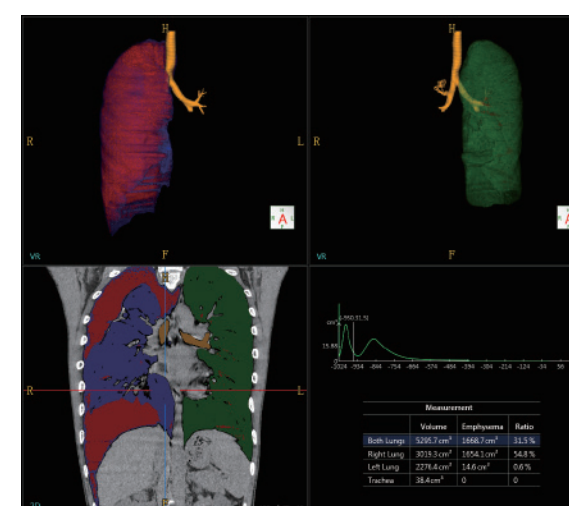
Lung Density

Lung Nodule Analysis

Full Range of Clinical Applications
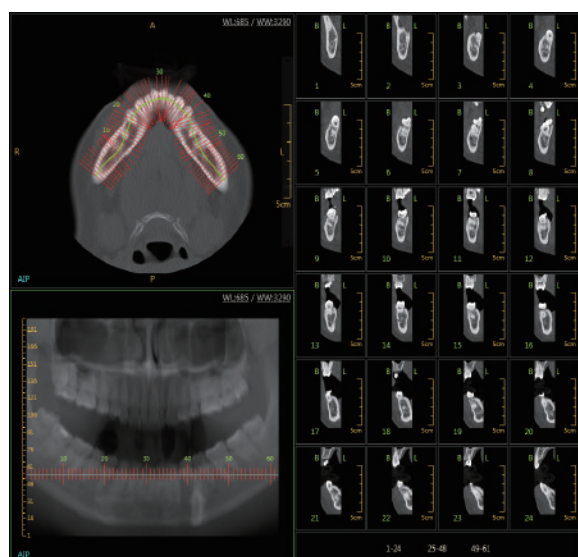
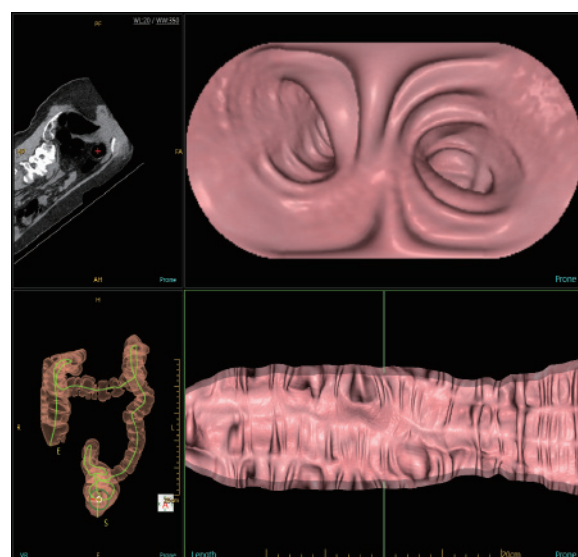## Advanced Vessel Analysis

Fat Analysis

CTU

Dental Analysis

Virtual Colonoscopy

Internal Fracture Fixation

Upgrable Spectral Imaging
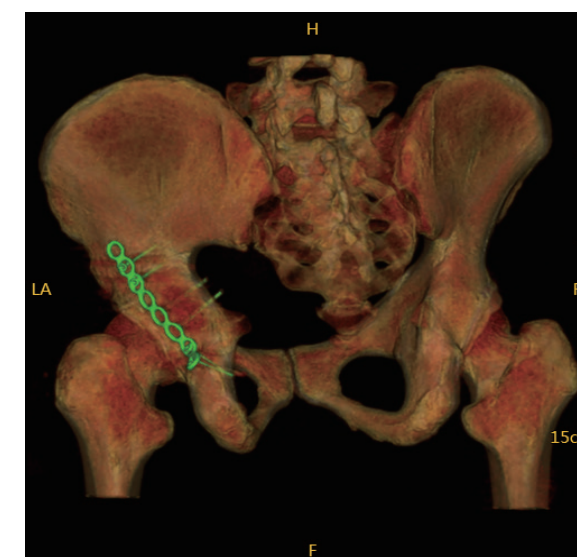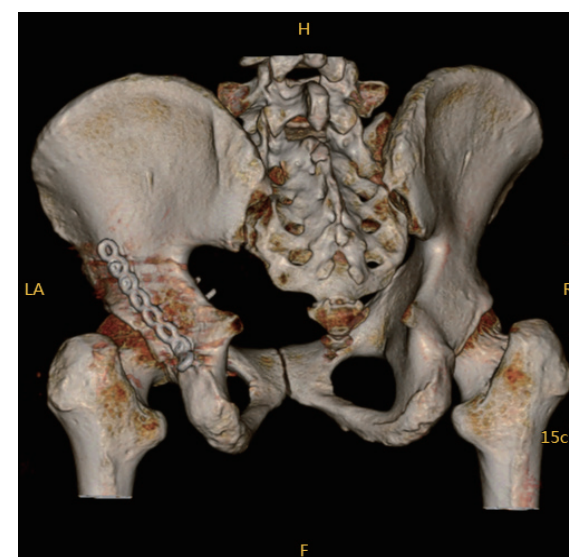
Spectral Imaging

The NeuViz Prime is designed to offer Spectral Imaging by kV switching, which can add tissue characterization to morphology based on different materials. Calcium, iodine and water can be separated easily. The benefits focus on diagnosis for cancer, gout, calcified plaque, etc.

80kV   140kV
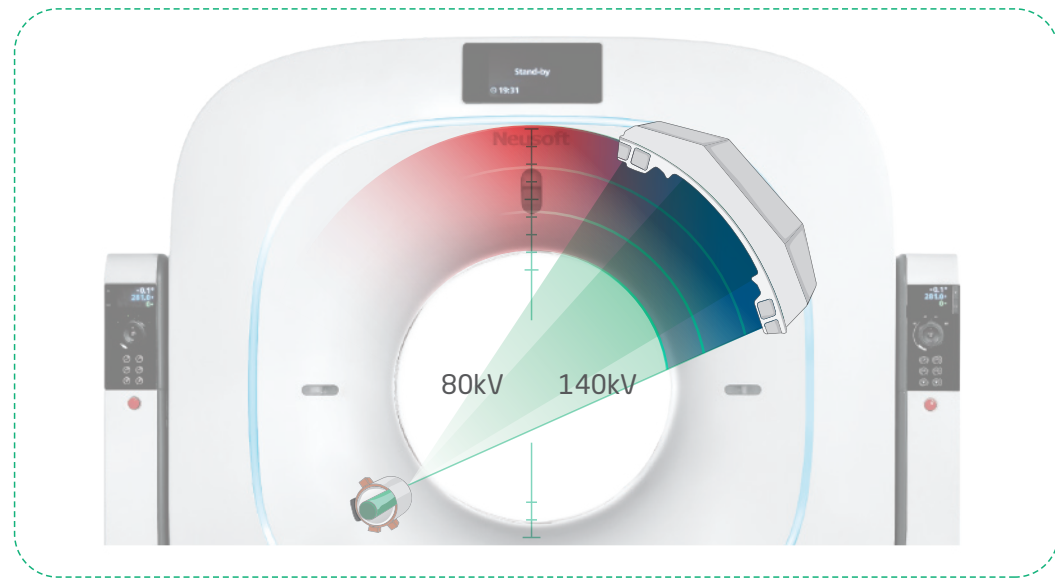
Homology Analysis
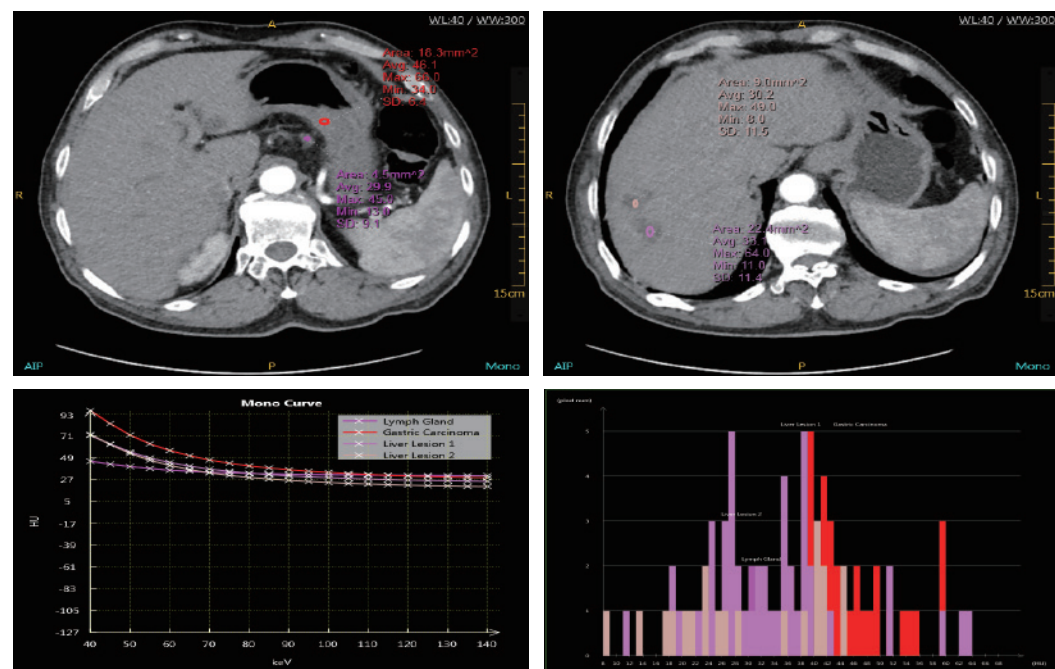
Automatically choosing Best CNR

CNR Curve   78keV
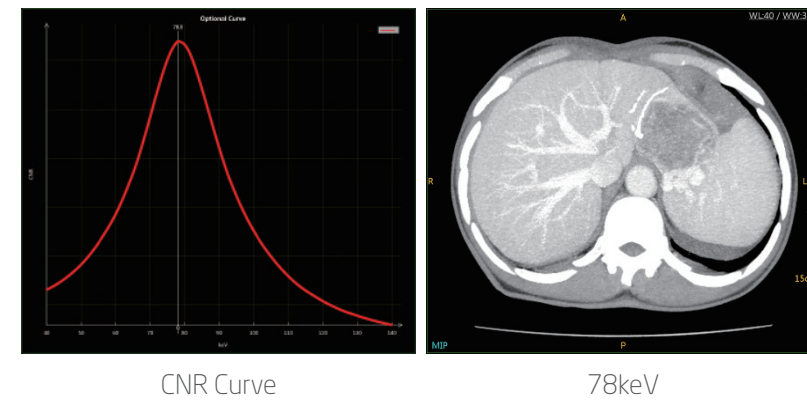
It automatically selects the best mono-energy image displaying ROI tissue, helping improve the small lesion detectability ratio and displaying arteries and veins. Disease diagnosis and surgical programs are more conveniently formulated.

Mono-energy rainbow images & curve

70keV   70keV   Mono Curve
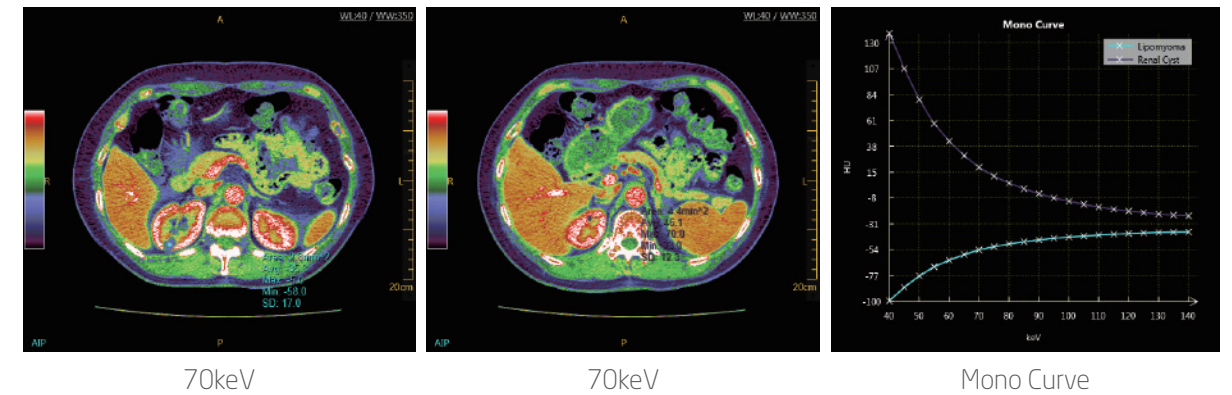
Multi-material separation & Z effective images

Iodine (Water) image quantitatively analyzes iodine uptake value

Iodine (Calcium) image erases calcification and precisely evaluates angiostenosis

Effective atomic number image further analyzes material composition

Easier Workflow
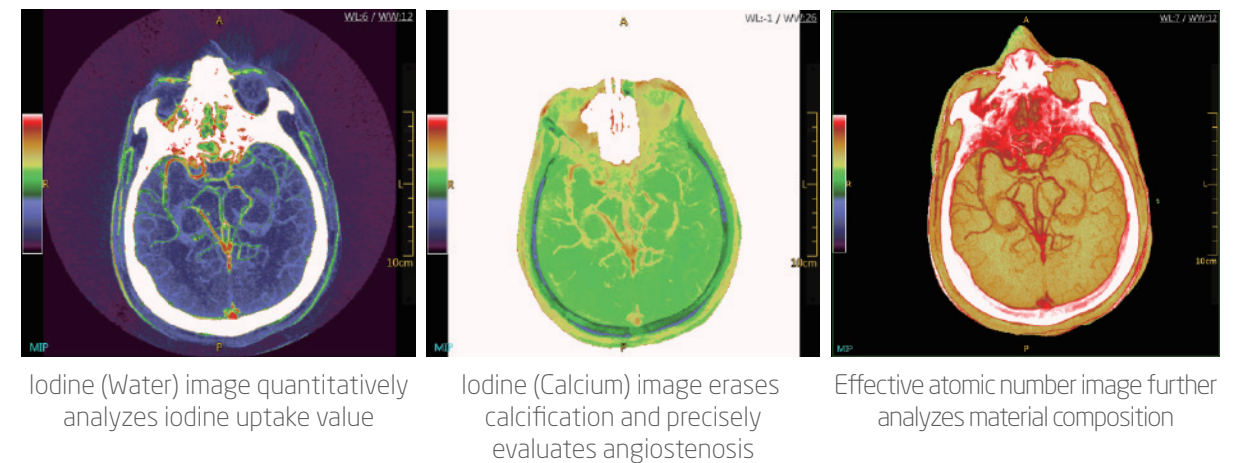
New Design

72cm gantry aperture
±30°gantry tilt
300kg patient table load as option

±30°

Φ72cm

Smart Protocol Selection

Intelligently learns from statistics and helps users select protocols with high using frequency.

Easy Using AVW Workstation

Post-processing is designed to save time. Key strokes are minimized and process steps are automated with streamlined workflow.

'One-click' bone removal can remove all bones, meanwhile automatically identifying and naming main vessels. 'One-click' segmentation can extract interest organs automatically, such as coronary arteries, lung, colon, etc.
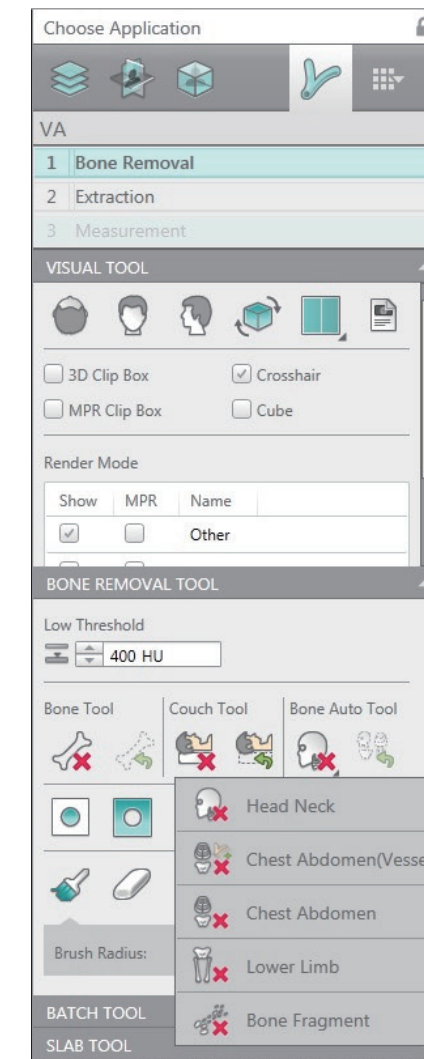
Server-Client Architecture

AVW.Cloud offers a new platform for efficient and automated workflow. It supports multi-terminal operation and multi-modality reading. It expands your clinical practice, lowers your daily costs and improves your work efficiency.

A new solution to enhance your teamwork, while caring more for your patients.

AVW server
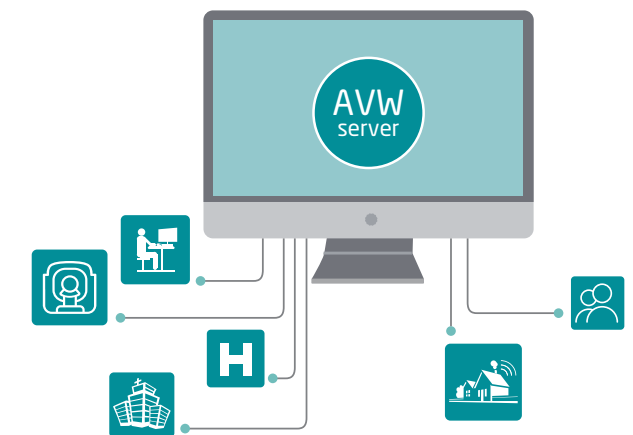
Service and Logistics Support

Neusoft Global Service & Logistics Network

Germany subsidiary
Russia subsidiary
Russia service center
Russia spare parts center
Germany spare parts center
France service center
Uzbekistan service center
Uzbekistan spare parts center
HQ China
CT global training center USA
USA service center
USA subsidiary
USA spare parts center
Korea Subsidiary
Tunisia spare parts center
Dubai spare parts center
Dubai service center
Thailand service center
Egypt service center
Vietnam office
Vietnam service center
Vietnam spare parts center
Kenya training center
Thailand Subsidiary
Nigeria service center
M.E. subsidiary
MENA subsidiary
Philippines service center
Philippines spare parts center
Kenya spare parts center
Kenya service center
Kenya subsidiary
Tanzania service center
Peru service center
Brazil subsidiary
Peru subsidiary
Brazil service center
Peru spare parts center
Brazil spare parts center

● HQ   ● Subsidiary   ● Service center   ● Spare parts center   ● Training center   ● Office

After-sales service and support

• Remote service capabilities bring Neusoft expertise to you IMMEDIATELY, no matter where you are!

• Identifying and correcting PROMPTLY and PROACTIVELY, minimizing downtime and patient inconvenience.

• Global logistics network enables fast response regarding parts and supplies.