

Caring for you

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 Neusoft Medical Systems

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NeuViz Prime V 22.08



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

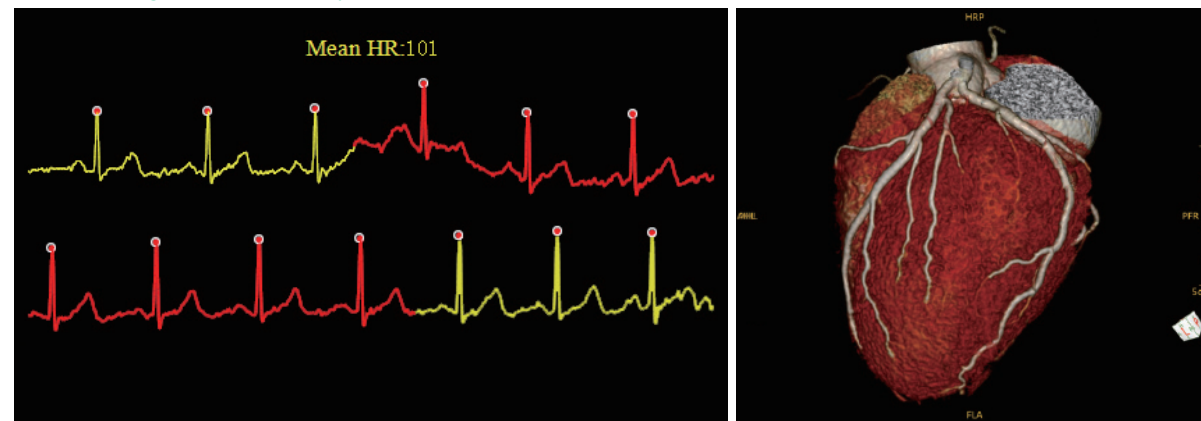


Acceleration
NEVER
ends

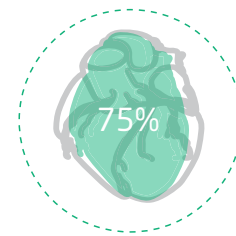
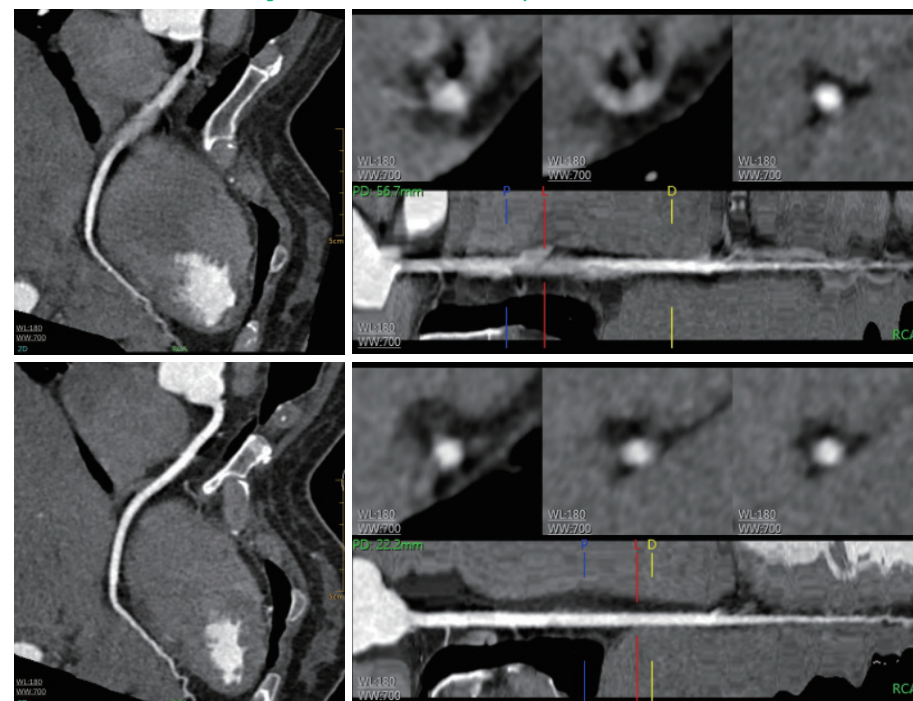
Uncompromised by Heart Rate

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



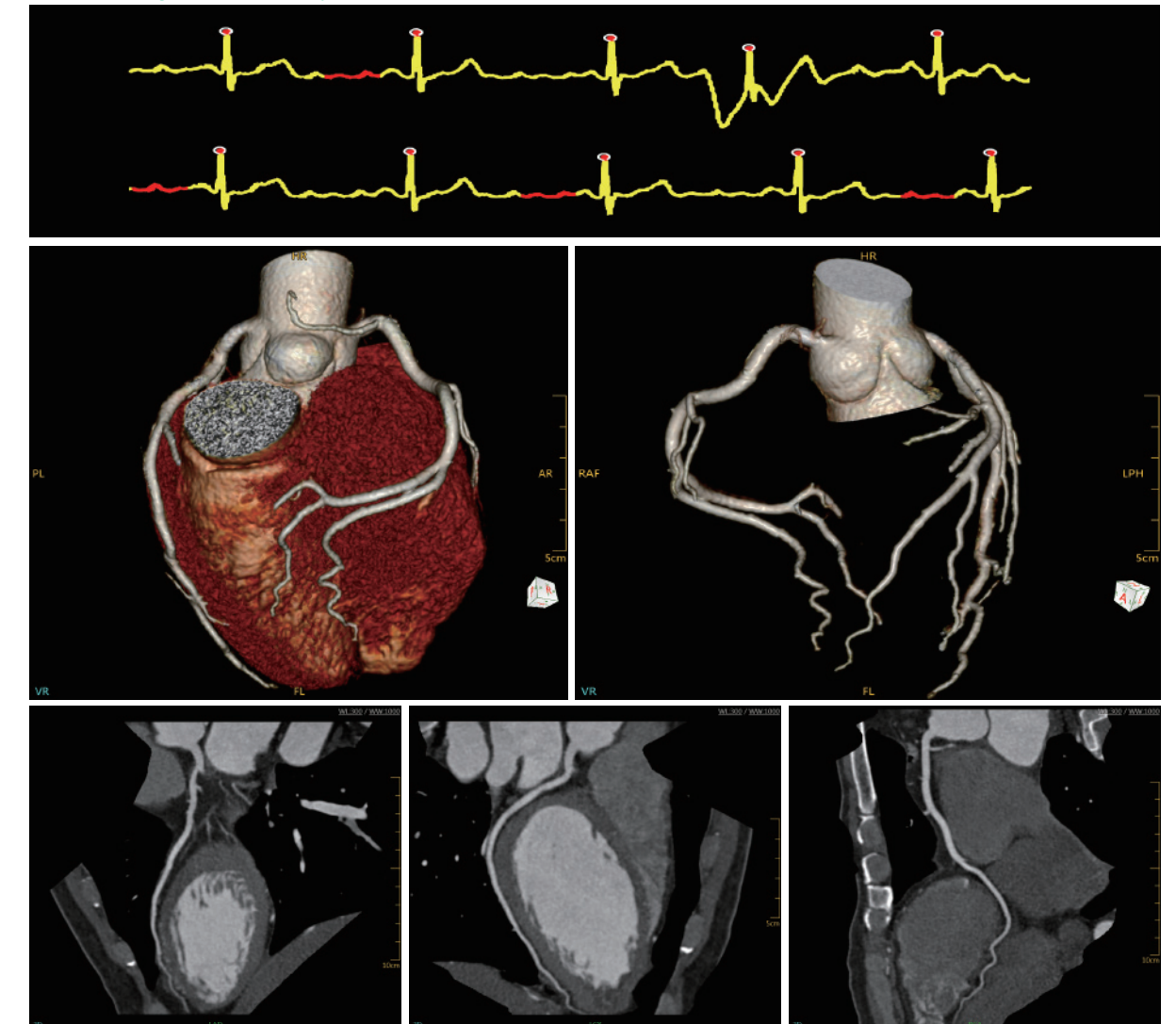
ECG edit, automatically selects best cardiac phase



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

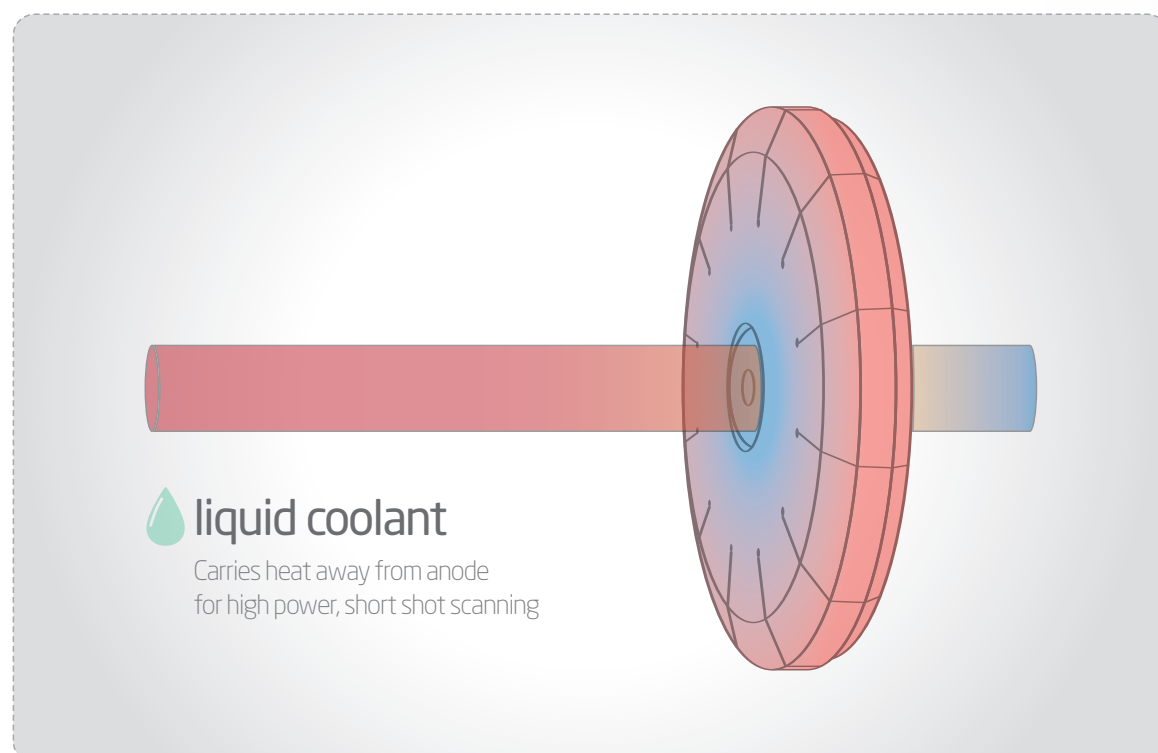


Unlimited X-Ray Tube Heat Capacity

(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.



No need to warm up
No need to wait for the X-Ray Tube to cool down
Emergency patients can be scanned immediately



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

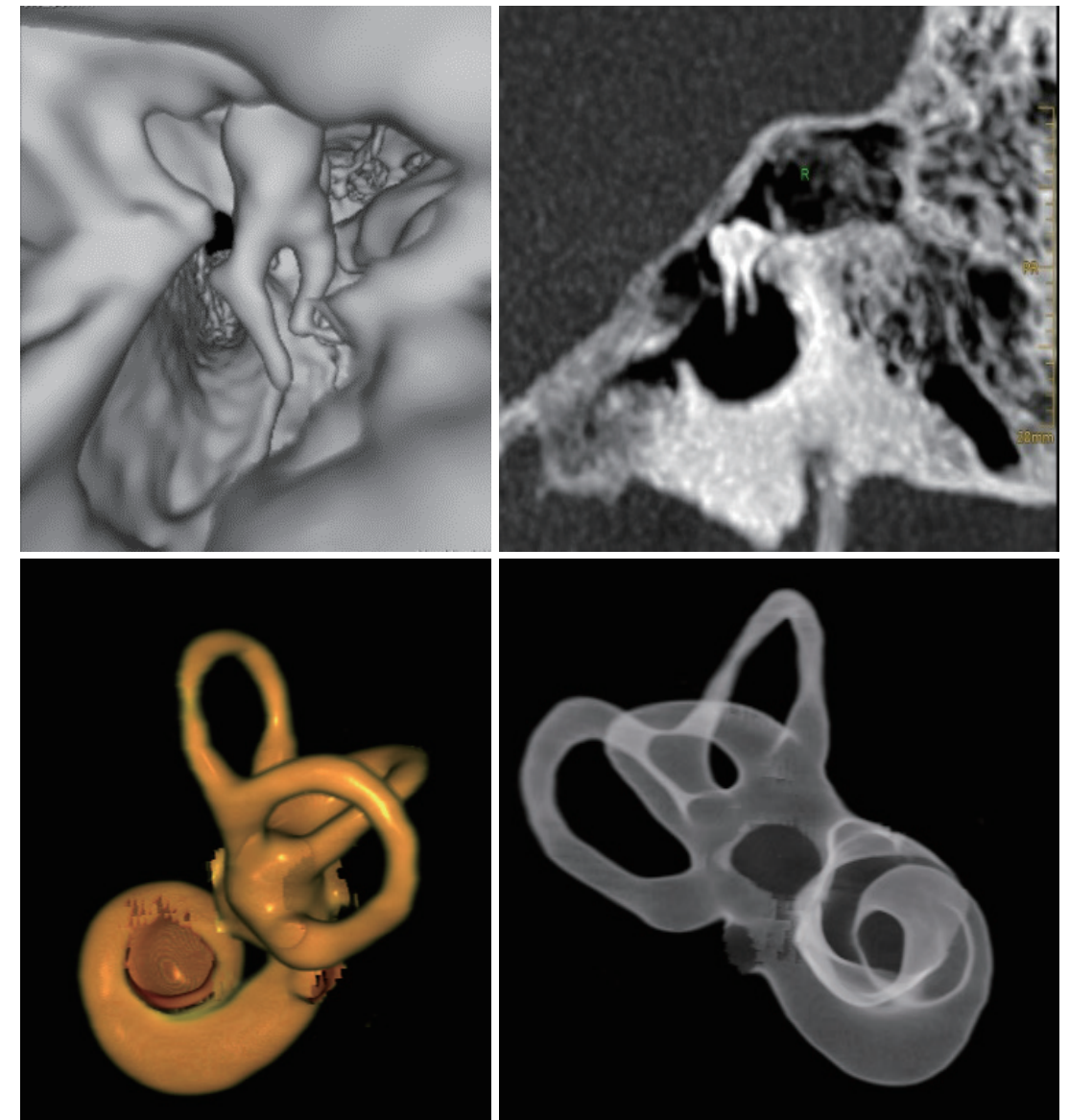
By dynamically moving the focal spot axially and longitudinally, sampling density is increased to 400%. This means improved resolution, reduced artifact and extended scanning range.

Quad-sampling

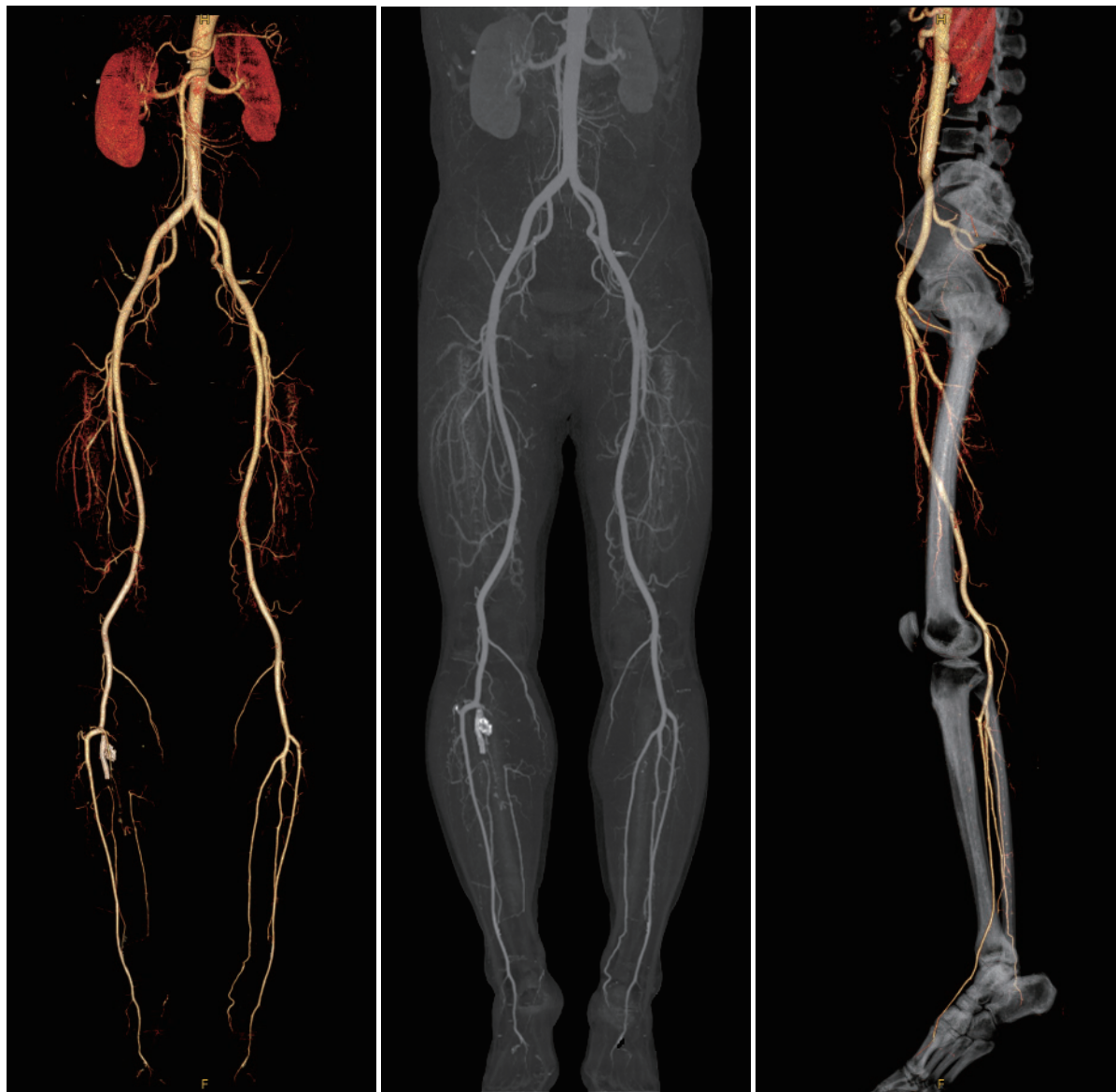
Compared with 512 matrix imaging, 1024 matrix imaging can provide 4 times more lesion information, which is necessary for lung nodule and inner ear studies.

1024 matrix

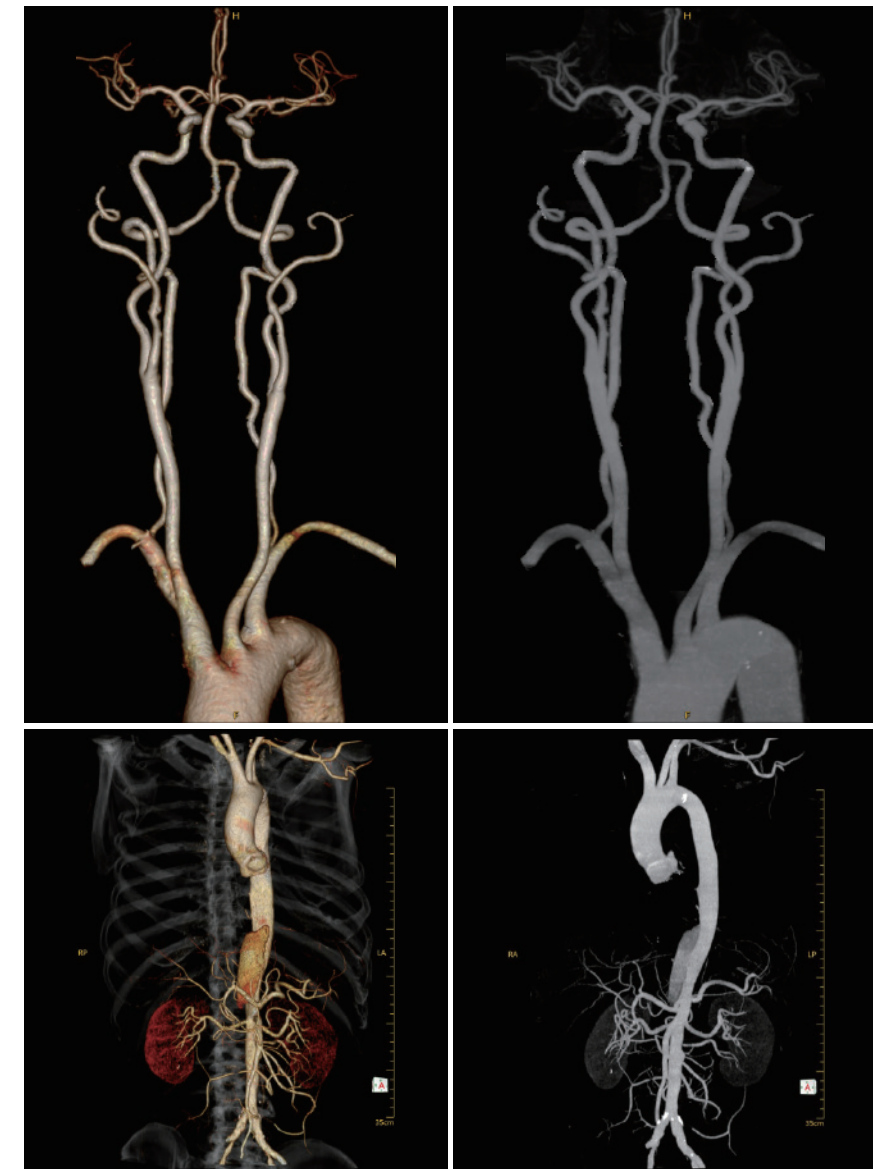
Inner Ear



CT Angiography

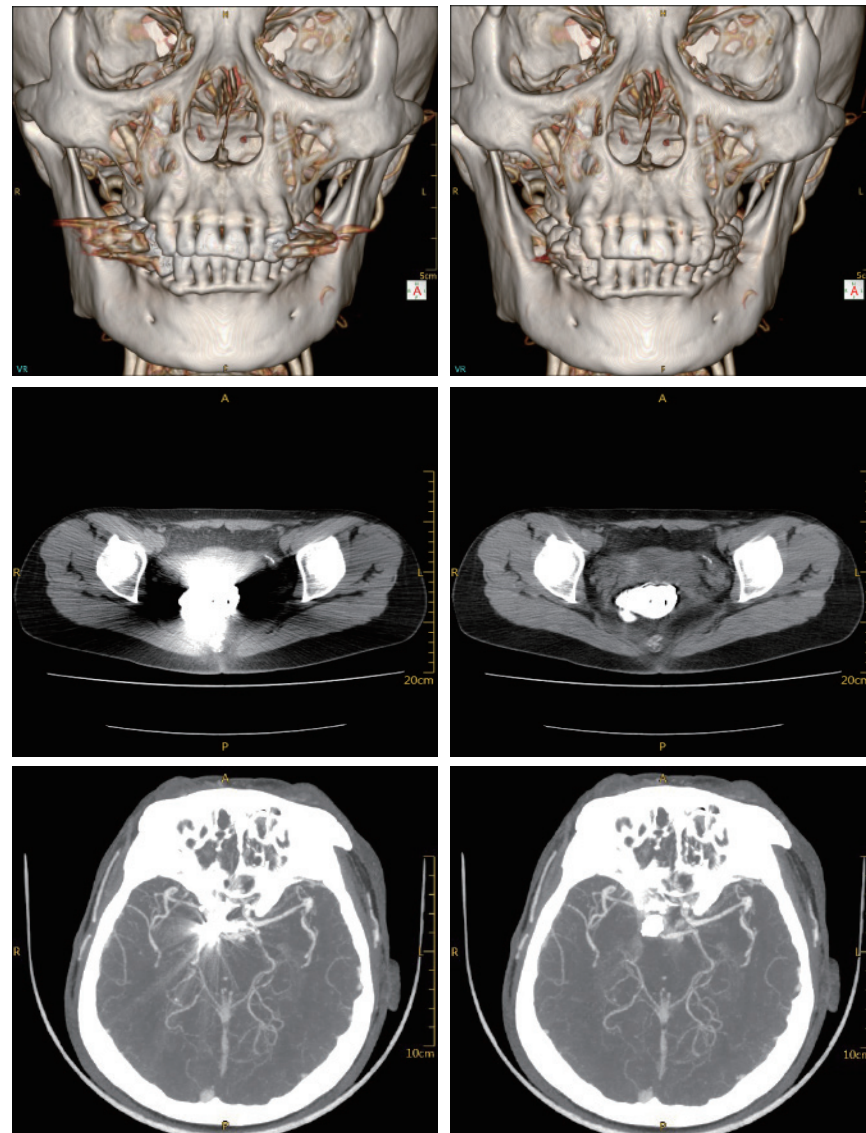


CT Angiography



MAR+

Automatically identifies 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

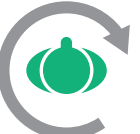
MAR+ ON





Low Dose Design


O-Dose Platform

- 

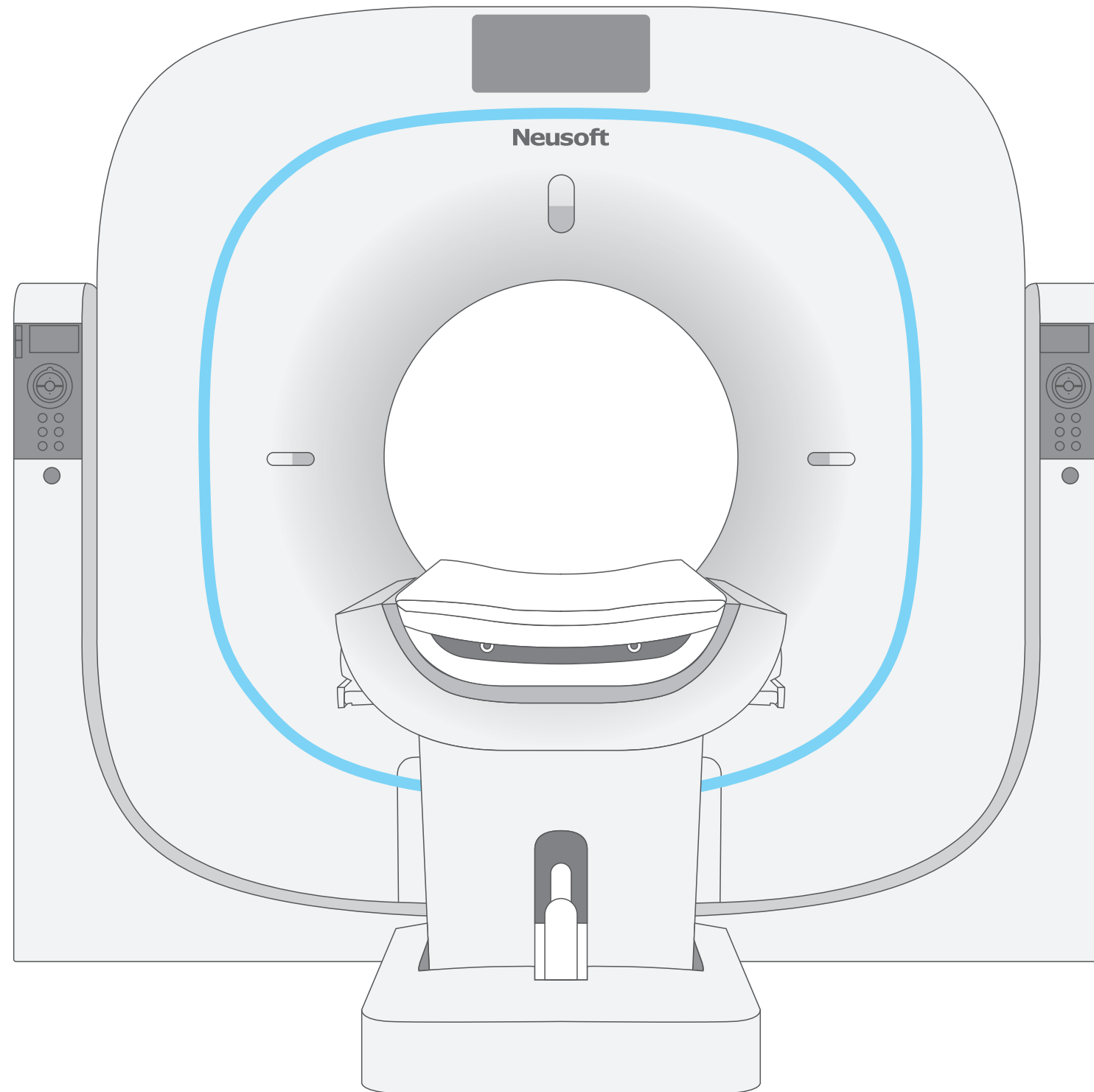
Unique 60kV scanning
Maintaining contrast concentration while reducing radiation dose.
- 

240° 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.
- 

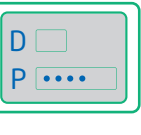
New detector design
Modular design delivers 99.99% X-Ray conversion efficiency, meaning that a lower dose is necessary to deliver excellent image quality.





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


- 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.

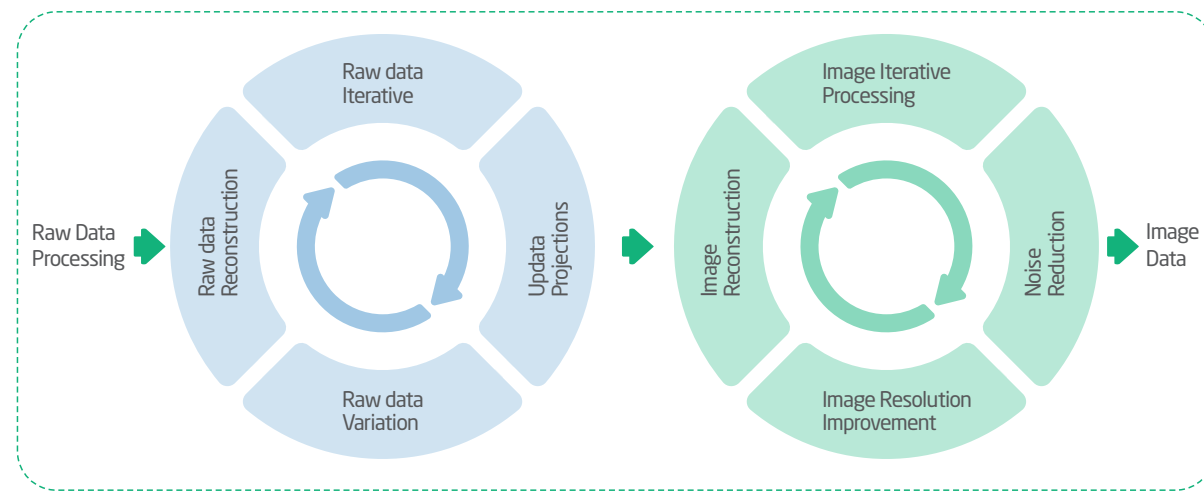

- 3D dose modulation**
Tube current modulated based on the anatomy in the scan field, providing an anatomically optimized dose.


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



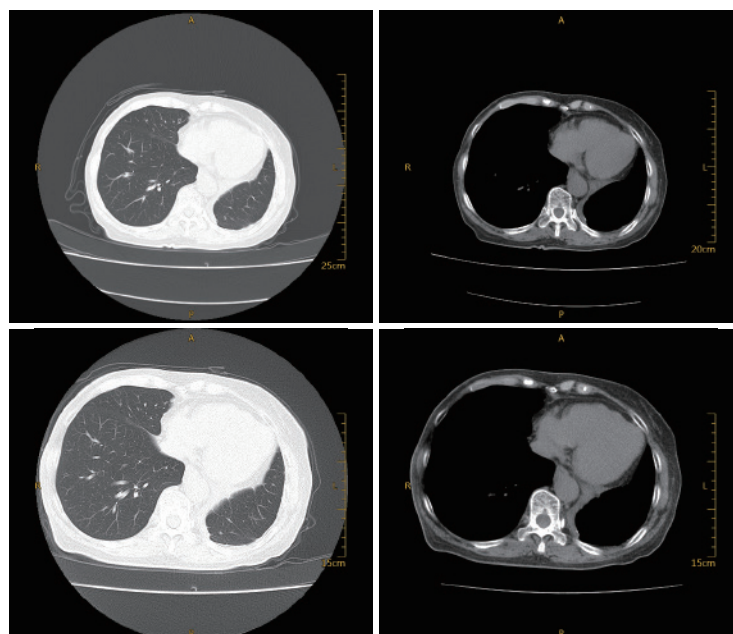
ClearView

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.

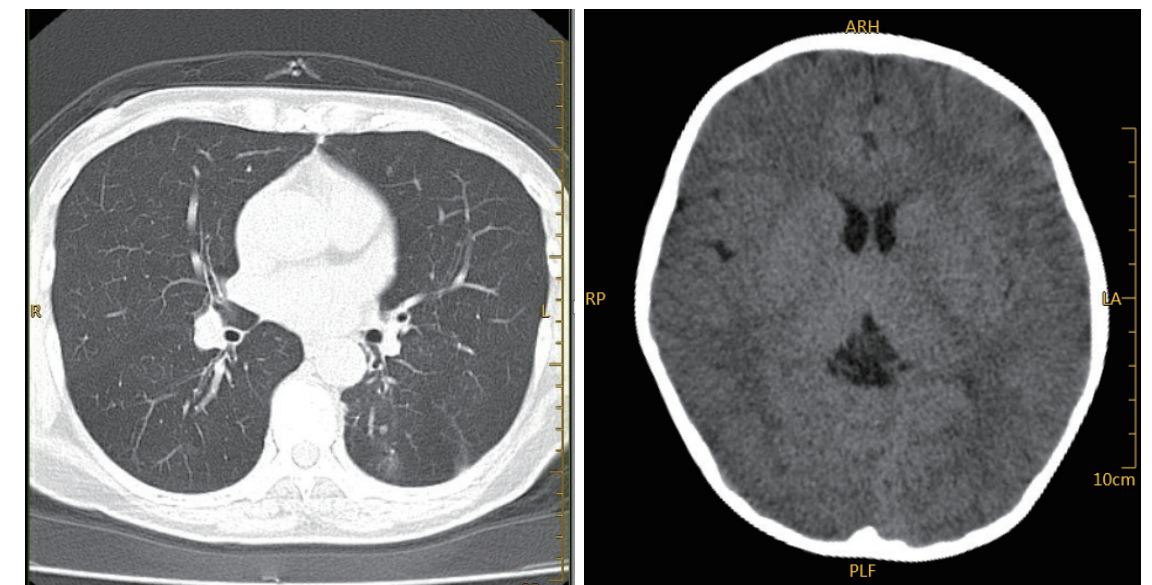


Large SFOV
120kV 180mA
2.9mSv

Middle SFOV
100kV 160mA
1.7mSv

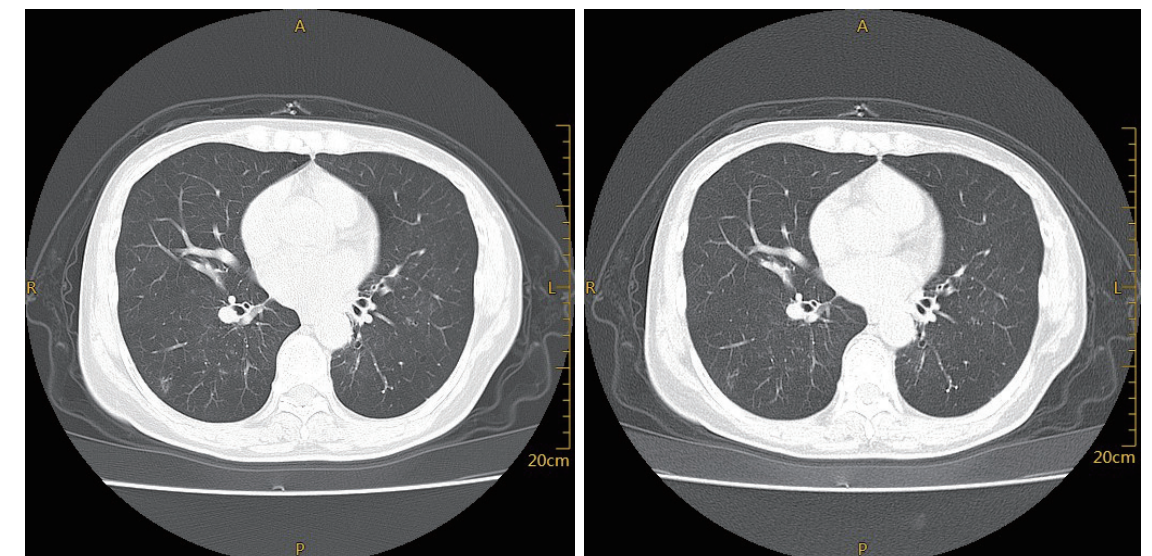
60kV Pediatric Image

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

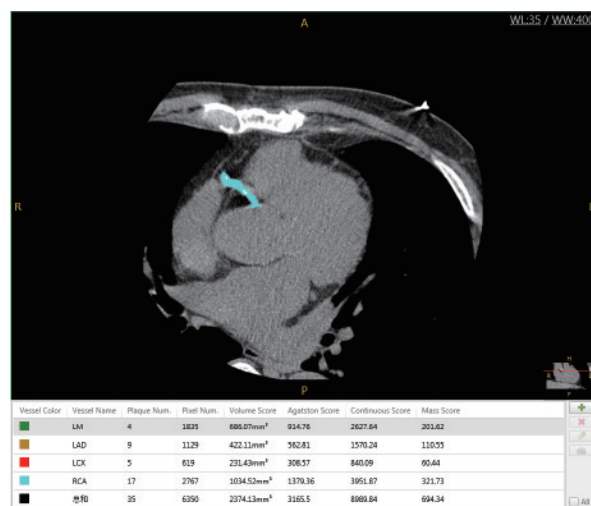


120kV

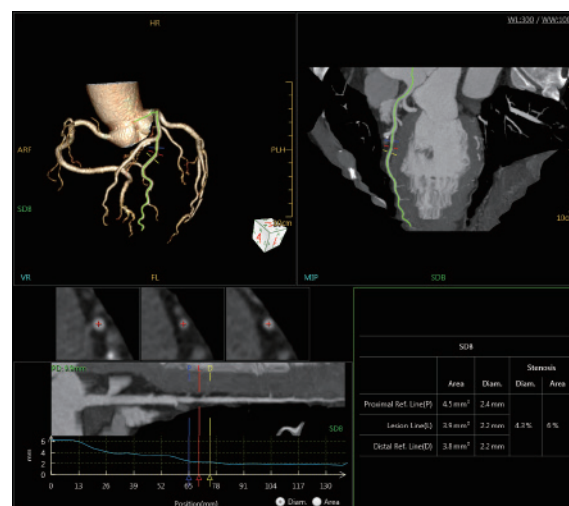
60kV

Full Range of Clinical Applications

Cardiac Solutions

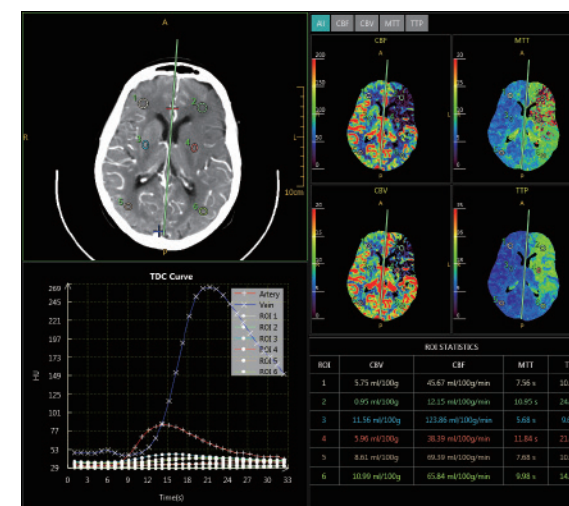


Cardiac Calcium Scoring



Coronary Analysis

Perfusion Solutions

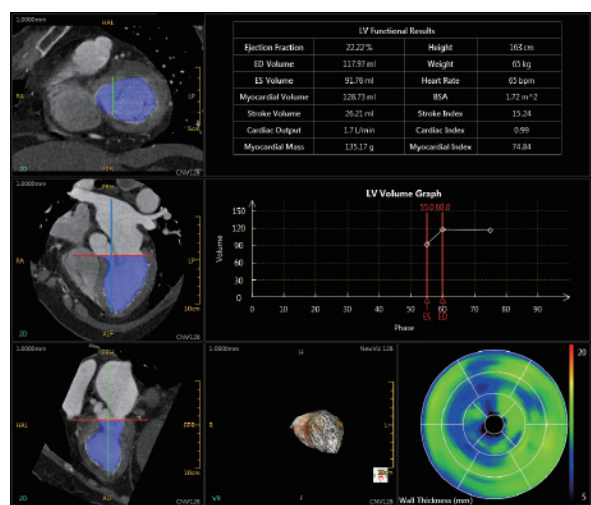


Brain Perfusion

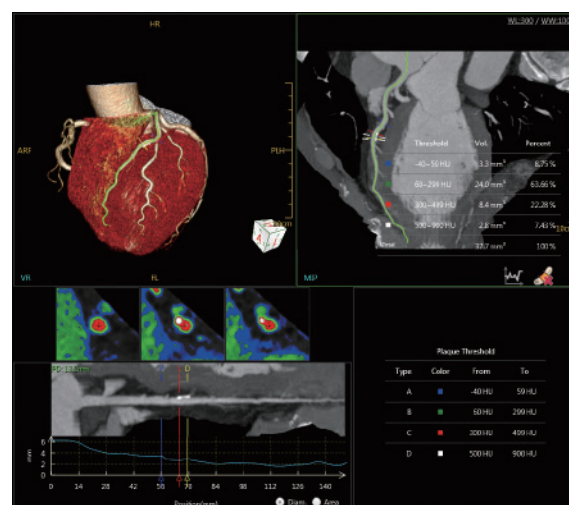


Body Perfusion

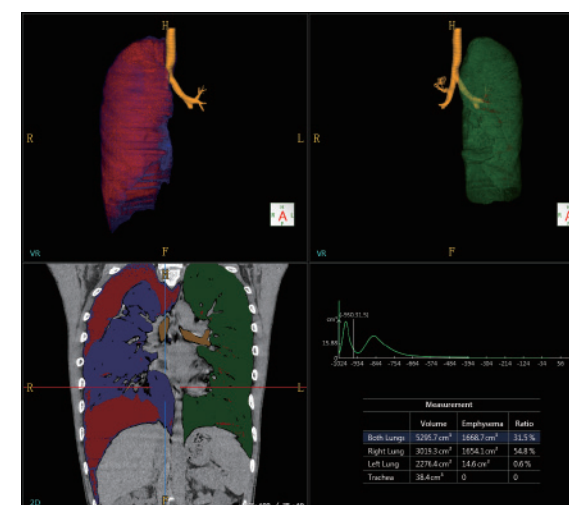
Lung Solutions



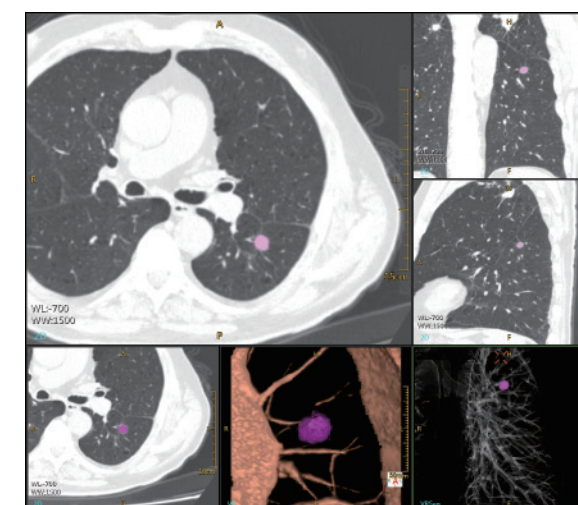
Cardiac Function Analysis



Plaque Analysis



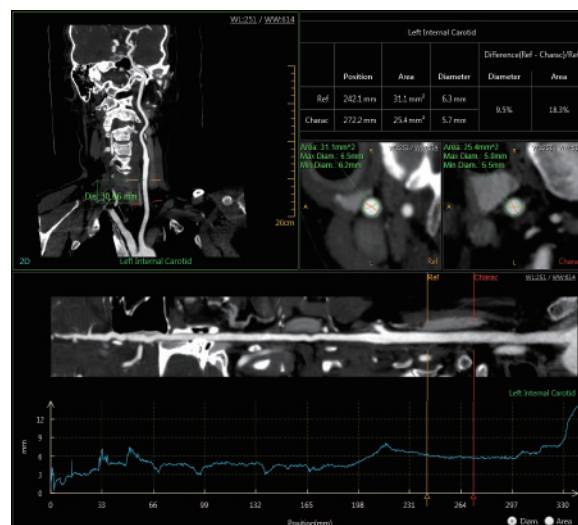
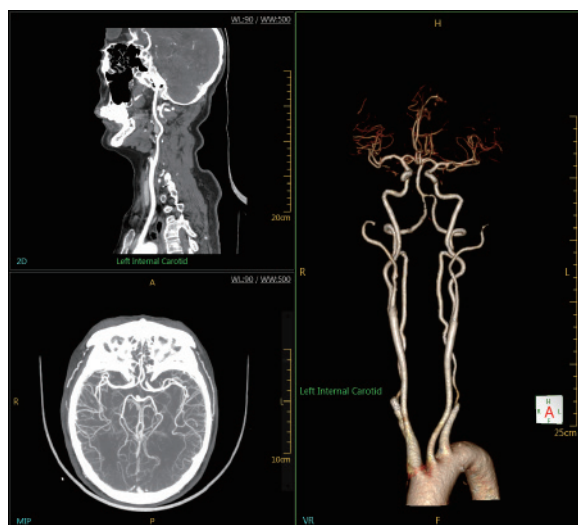
Lung Density



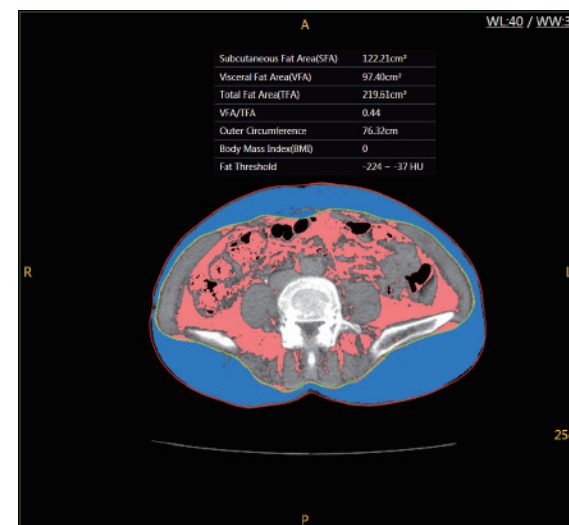
Lung Nodule Analysis

Full Range of Clinical Applications

Advanced Vessel Analysis



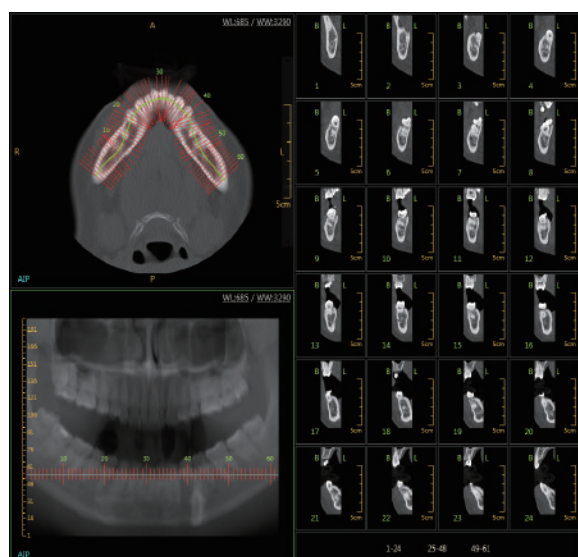
Fat Analysis



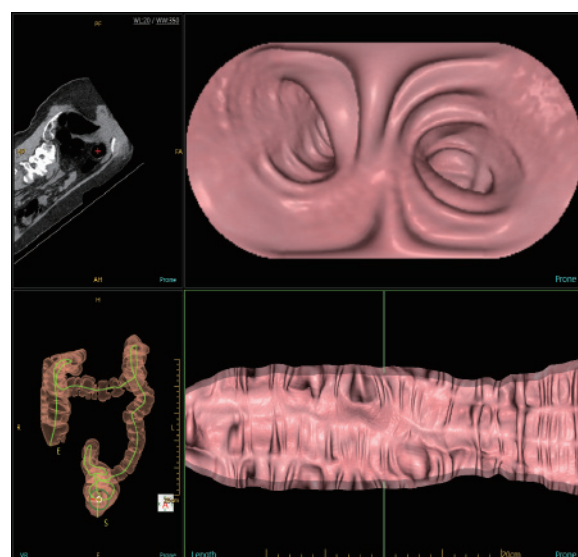
CTU



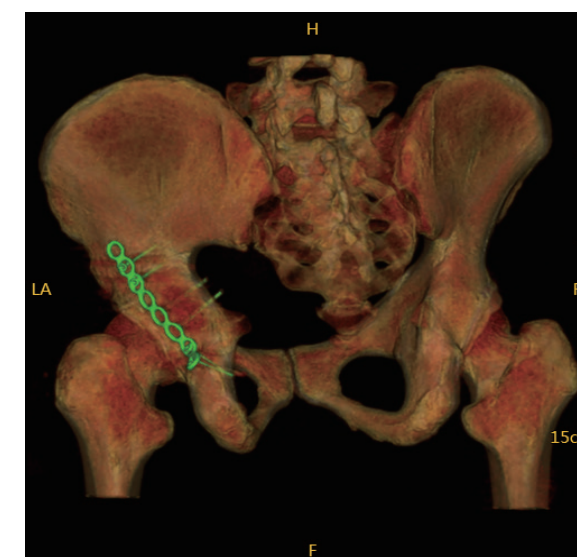
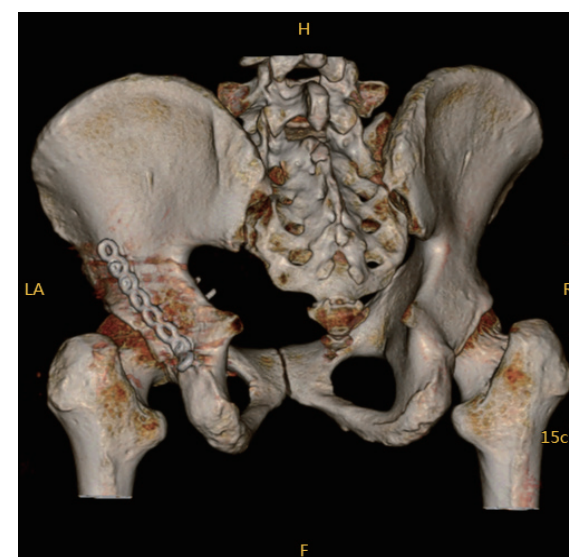
Dental Analysis



Virtual Colonoscopy



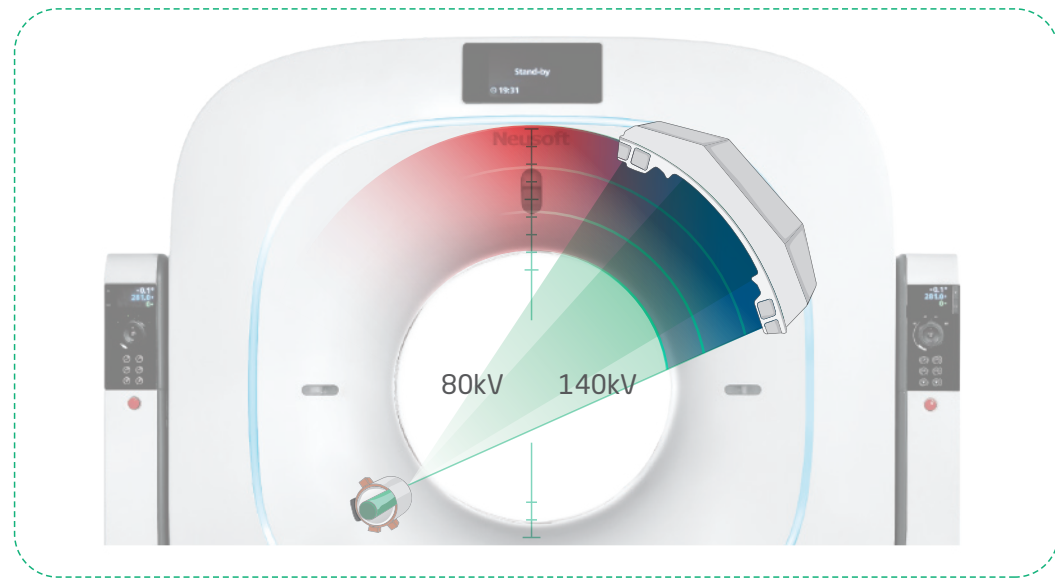
Internal Fracture Fixation



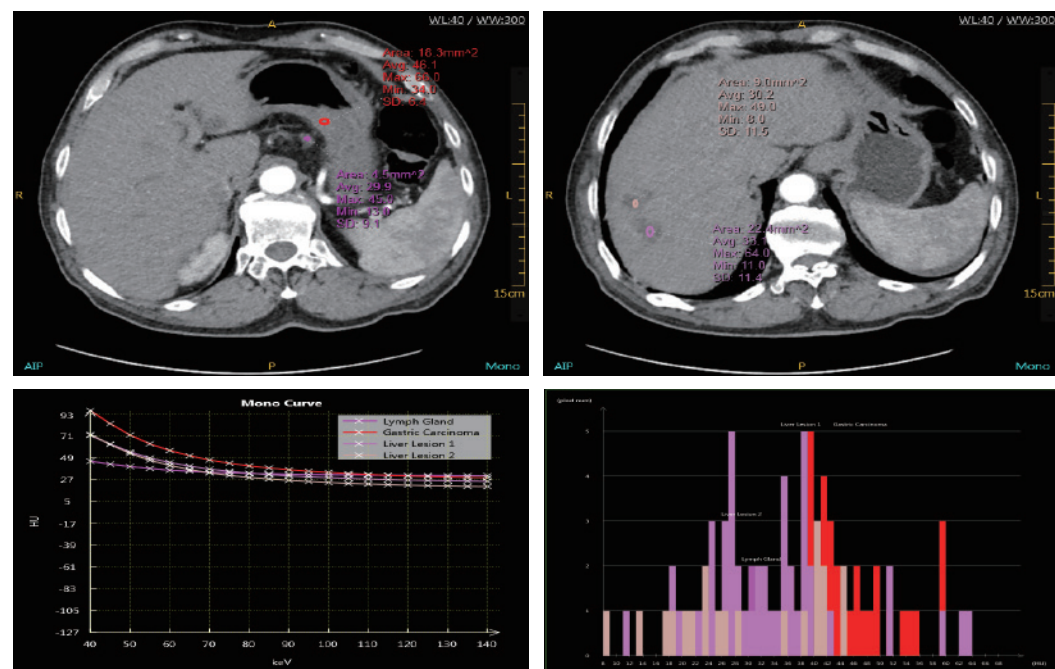
Upgrable Spectral Imaging

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.



Homology Analysis

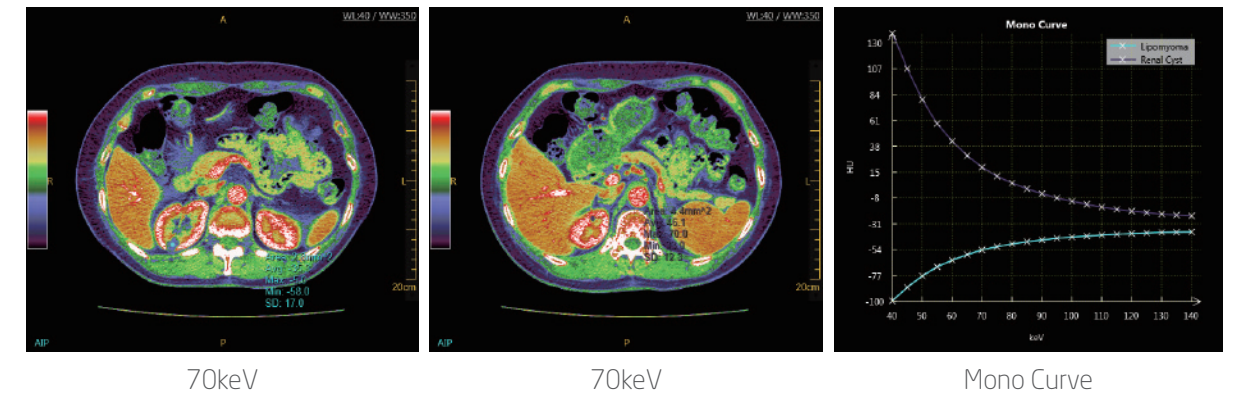


Automatically choosing Best CNR

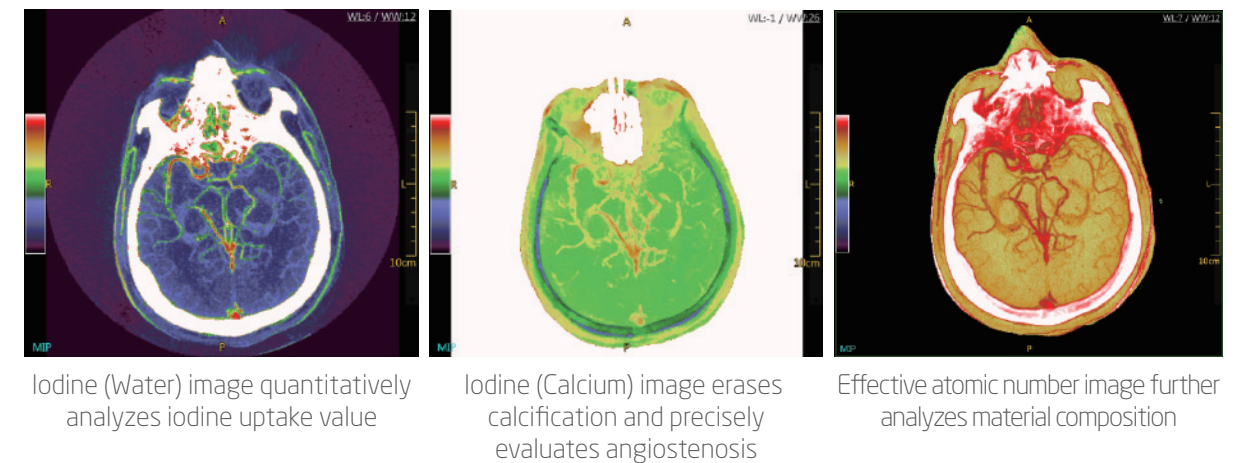


It automatically selects the best mono-energy image displaying ROI tissue, helping improve the small lesion detectability ratio and displaying arteries and veins. Disease diagnosis and surgical programs are more conveniently formulated.

Mono-energy rainbow images & curve



Multi-material separation & Z effective images



New Design

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



Smart Protocol Selection

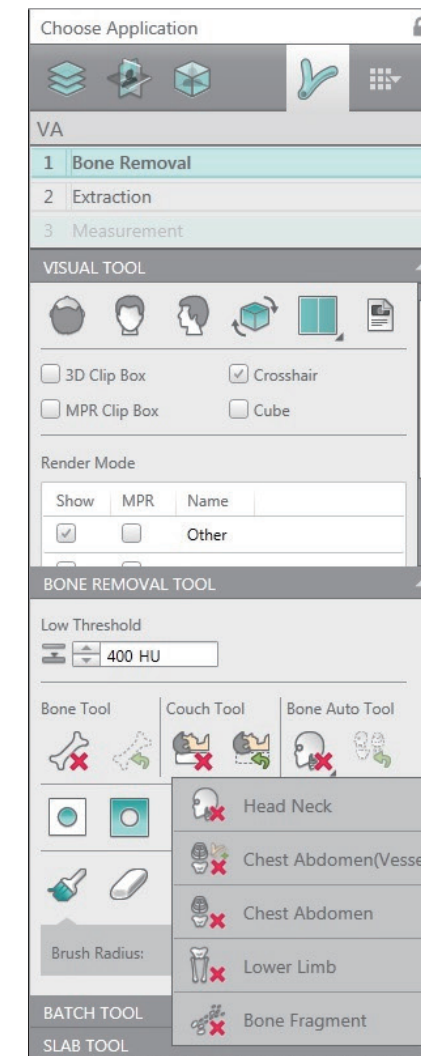
Intelligently learns from statistics and helps users select protocols with high using frequency.



Easy Using AVW Workstation

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

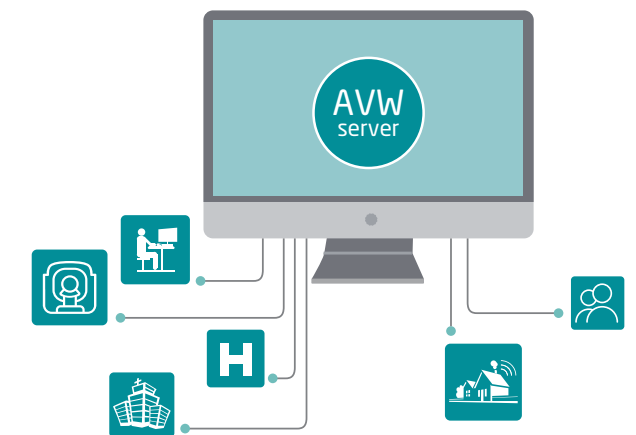
'One-click' bone removal can remove all bones, meanwhile automatically identifying and naming main vessels. 'One-click' segmentation can extract interest organs automatically, such as coronary arteries, lung, colon, etc.



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.



Service and Logistics Support



Neusoft Global Service & Logistics Network



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.

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