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uCT Orion Elite

**Intelligent Scans,
Elevated Insights**

ABOUT UIH

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uCT Orion Elite

Intelligent Scans, Elevated Insights

The uCT Orion Elite starts with an intelligent workflow that delivers comprehensive, patient-centered care. It also enhances efficiency throughout the scanning and diagnostic workflow, helping technologists and radiologists work with ease. AI sets a new benchmark in image quality, providing radiologists with clarity

images for confident interpretation. Built on robust and reliable hardware, uCT Orion Elite supports comprehensive clinical applications and handles complex examinations smoothly. uCT Orion Elite brings intelligent scans and elevated insights for every scan.



Maximizing Productivity Through Intelligent CT Workflows



Enhanced Patient-Centric Scanning Experience



AI-Driven Imaging for Advanced Clinical Insight



Unlocking Clinical Potential for Expanded Applications



Enhanced Patient-Centric Scanning Experience

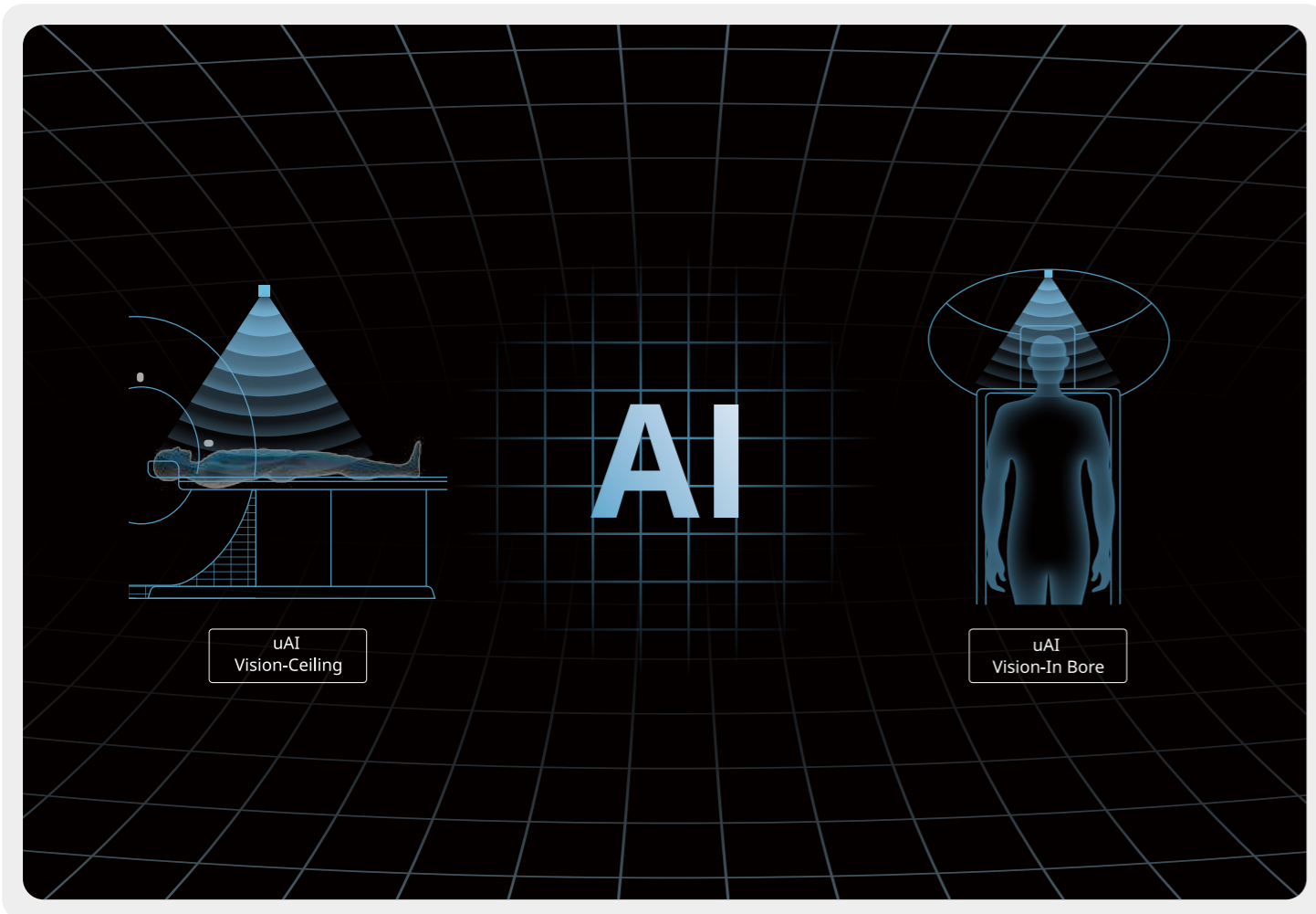
uCT Orion Elite is designed to bring a refreshing, patient - centric scanning experience to every patient. With uAI Vision and AI algorithms, the system is capable of real - time monitoring of patients' scanning status. Moreover, it reduces the chance of patients being called back for re - scans by conducting real

- time detection of factors impacting image quality. Furthermore, the AI - powered risk alerts help clinicians provide more timely care to patients. The uCT Orion Elite is leading the way to a new standard of care.

With uAI Vision's Dual Cameras, Patient-centered Scanning is Delivered to Every Patient

The uCT Orion Elite's uAI Vision features two cameras, enabling real-time patient monitoring from two distinct views: top-down and close-up. Furthermore, these cameras, powered by AI algorithms, serve as the operator's intelligent CT scan assistant in the scan room. The technology enables real-time monitoring

of the patient's scan status and assists in the early identification of scanning issues and potential risks, making the scan more efficient and smooth. uCT Orion Elite remains intelligent, adapts to clinical needs, and prioritizes patient care.



uCT Orion Elite Keeps Image Quality on Track

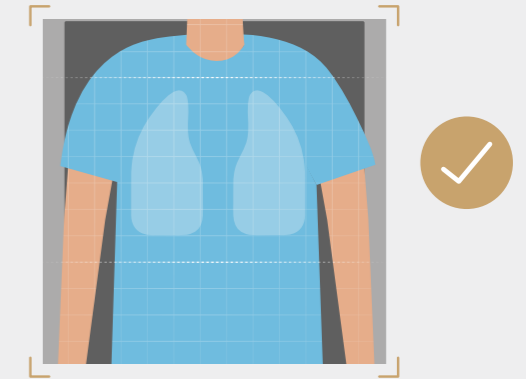
To achieve a high scanning success rate and reduce the likelihood of patients being recalled for re-examination, uCT Orion Elite employs AI algorithms to provide real-time prompts during scanning.

These prompts notify technologists of factors that may impact image quality, assist them in identifying possible scanning issues, and reduce the likelihood of patient recalls.



Quality Check for Chest

During chest scans, the AI-empowered quality check monitors the patient's breath-hold status. If the patient fails to hold the breath as required, the system triggers real-time prompts, which helps technologists efficiently confirm chest image quality and reduce patient recalls.



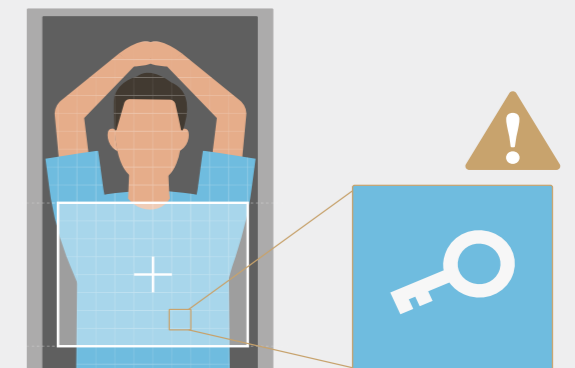
Quality Check for Motion

Based on AI technology, the uAI Vision in-bore detects patient movement. Once patient's motion is detected, it triggers real-time prompts, enabling technologists to stay vigilant about the patient's scanning status.



Quality Check for Metal

It automatically detects non-iatrogenic metal (such as belts, keys, necklaces, etc.) and accurately pinpoints their locations in the scout image. This can remind technologists to remove the metal objects, avoiding the generation of artifacts and enhancing image quality.



uCT Orion Elite Guards Every Patient

The uCT Orion Elite is equipped with uAI Vision to provide real-time patient monitoring throughout the entire scanning process, while its intelligent algorithms simultaneously detect patient-related risks and prompt operators to address potential

hazards or critical conditions at an early stage. With these capabilities, technologists can quickly recognize scan-related risks and swiftly implement immediate interventions, delivering comprehensive patient care for every individual.



uAI Vision-In Bore

With uAI Vision in Bore, operators can observe patients' scanning status during the scanning process, much like having an eye for close-up patient observation. This enables them to continuously monitor the patient's scanning status throughout the entire procedure and helps them quickly identify issues such as contrast extravasation or allergic reactions.



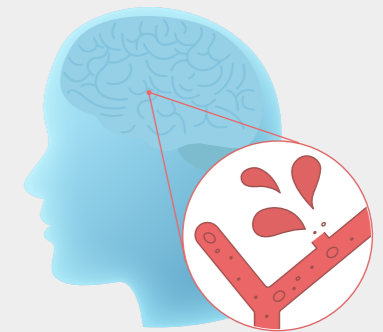
Patient-gantry Collision Check

By incorporating the patient body-contour data acquired from uAI Vision with the CT geometry, the system proactively identifies potential unsafe areas prone to collisions. Once a potential patient-table collision is detected, an anti-collision message will appear before table movement, thereby reducing the likelihood of collisions between the patient and the gantry.



AI-based Brain Hemorrhage Detection[※]

EHT – Cerebral Hemorrhage is designed for intracerebral hemorrhage (ICH) detection. It provides technologists signals when potential ICH is detected, enabling fast triage of such patient and preserving valuable time for patient assessment.



※ Independent of CT, separate CE certification



Maximizing Productivity Through Intelligent CT Workflows

Maximizing hospital productivity requires not only efficient scanning and streamlined workflows, but also high-quality imaging, cost-effective operation, and timely system support. The uCT Orion Elite meets all these needs: AI-powered intelligent workflows simplify each step for technologists during scanning;

for radiologists, fewer manual tasks improve efficiency while maintaining consistent, high-quality images for confident diagnoses. Intelligent uEco Mode reduces daily power consumption, helping control operating costs, and remote service ensures timely support to minimize downtime and maintain stable operation.

uCT Orion Elite Streamlines Every CT Scan Step

uCT Orion Elite streamlines the entire CT scanning process by integrating advanced technologies at each stage. It achieves efficient patient positioning from the start, applies intelligent dose control to personalize exposure without compromising image

quality, and accelerates diagnosis through a range of intelligent post-processing tools. Overall, these step-by-step optimizations contribute to enhanced scanning efficiency.

AI-based Automatic Patient Positioning

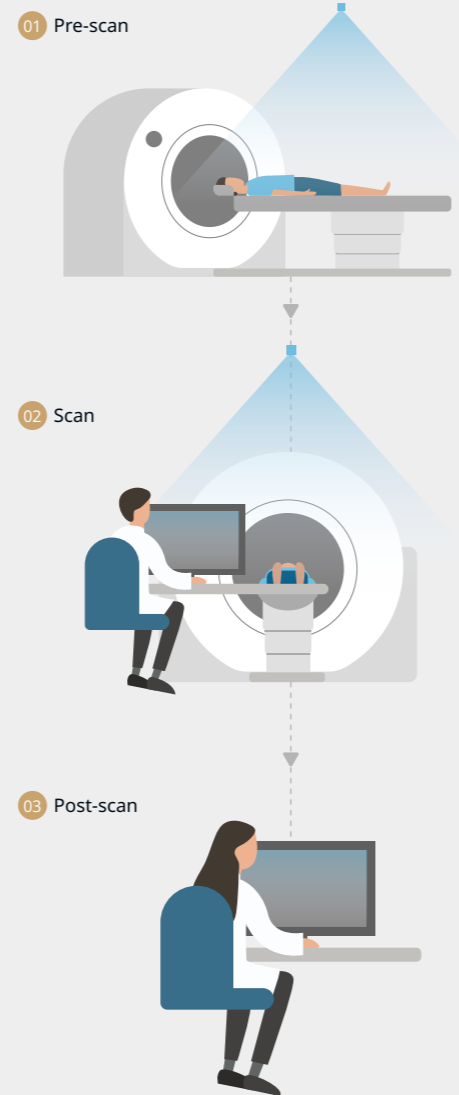
Based on the selected protocol, uCT Orion Elite automatically determines the scan range and accomplishes the patient positioning with one click.

Intelligent Dose Control in CT Imaging

uCT Orion Elite helps you determine the appropriate scan settings, so you can achieve optimized dose and image quality for every patient, every scan.

A Full Suite of Efficient Post-Processing Applications

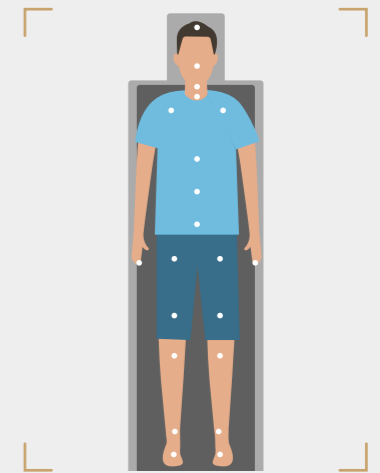
uCT Orion Elite helps you transform the originally time-consuming post-processing analysis into a quick and easy process.



AI-based Automatic Patient Positioning

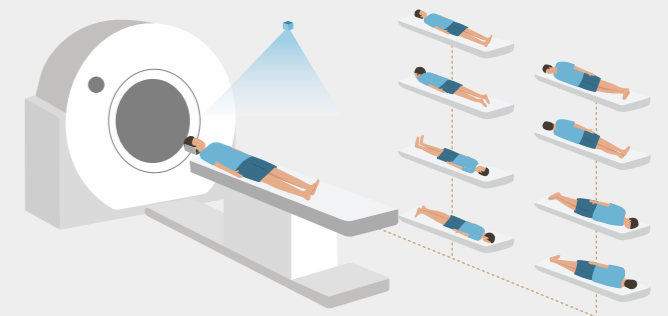
AI depicts the shape of patients

Based on uAI Vision's automated detection of 21 anatomical landmarks, uCT Orion Elite enables the depiction of patient anatomy and the automatic determination of the optimal scan range. This function applies to all scan protocols.



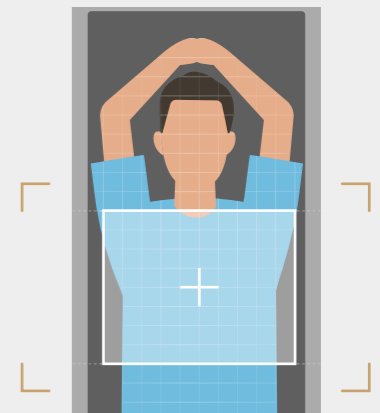
AI identifies the patient's pose

With advanced algorithms and sensors, uAI Vision automatically detects patient orientation by identifying 8 patient poses, helping to reduce medical errors.



AI enables dynamic adjustments

The uAI Vision offers real-time patient movement tracking. This feature enables automatic adjustment of the scan start line and range, enhancing imaging accuracy and minimizing the impact of patient movement before scanning.

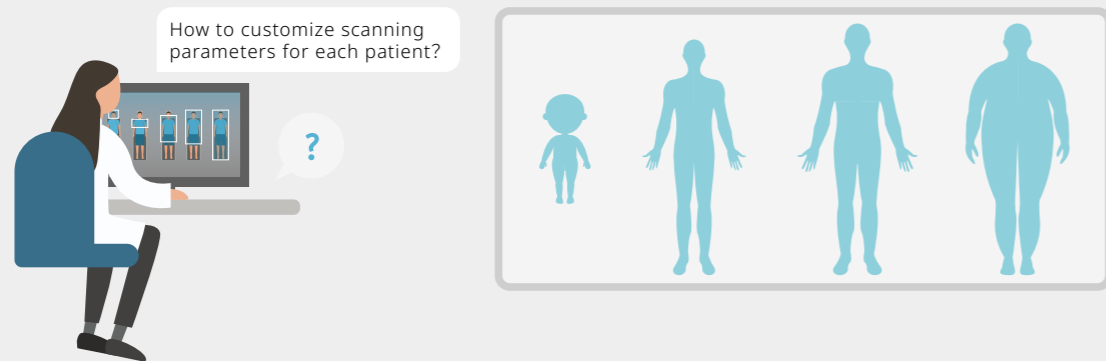


Intelligent Dose Control in CT Imaging

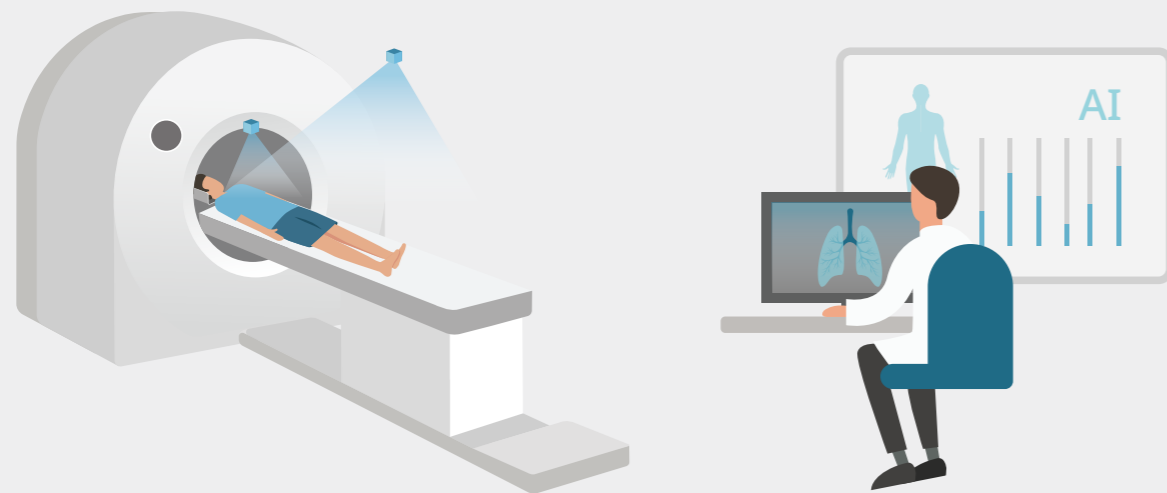
Radiation doses in CT examinations vary considerably with patient size and scan type. Reducing unnecessary radiation dose requires the individualization of scanning protocols for each patient. The uCT Orion Elite reduces radiation not only through

advanced hardware but also by leveraging software optimization and AI-driven algorithms, which tailor patient-specific scanning parameters to each clinical scenario, effectively lowering dose while preserving high-quality imaging.

Challenges in planning scanning parameters



Intelligent parameter planning and adjustment



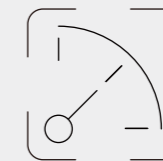
EasyRange

Powered by AI algorithms, EasyRange pinpoints patients' target anatomical location's upper and lower margins according to the selected scanning protocol. Thus, it can automatically plan the start and end lines of the scan range. This helps achieve full coverage of the target anatomy while reducing unnecessary radiation exposure.



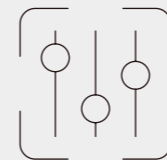
Auto kV

Based on anatomical information from the topogram and the specific requirements of the selected scan type, Auto kV automatically calculates and recommends the tube kV to optimize radiation dose while achieving high-quality images.



Auto ALARA mA

Auto ALARA mA adjusts the mA based on attenuation information from different regions. This intelligent, region-specific modulation helps achieve optimal image quality throughout the scan while improving both dose efficiency and minimizing unnecessary radiation.



Organ-Based Auto ALARA mA

The organ-based auto ALARA mA automatically recognizes the coordinate regions of the chest and abdomen to optimize dose modulation parameters for different organs. When compared to using a single protocol for chest and abdomen imaging, this technology delivers higher image quality while maintaining a reasonable dose.



A Full Suite of Efficient Post-Processing Applications ✧

uCT Orion Elite offers a comprehensive suite of console-integrated post-processing applications designed to address diverse diagnostic needs across clinical scenarios. These intelligent tools streamline routine workflow by reducing repetitive manual steps, enabling users to complete post-processing

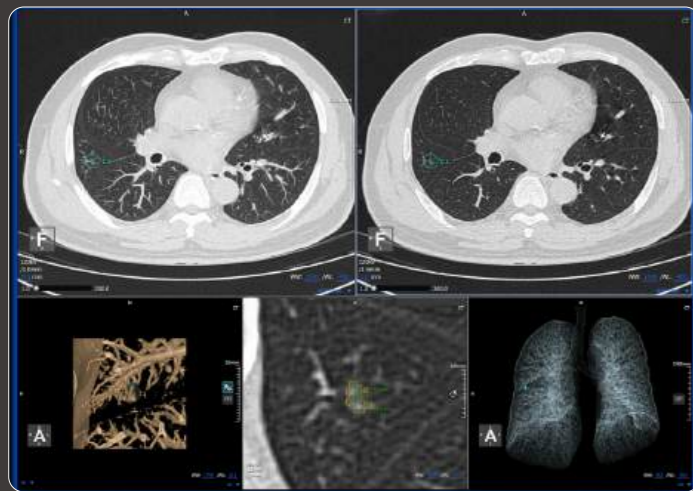
more efficiently. Key features such as one-click bone removal, automatic vessel extraction, intelligent vertebral identification, and lung nodule screening help accelerate workflow and enhance diagnostic efficiency.



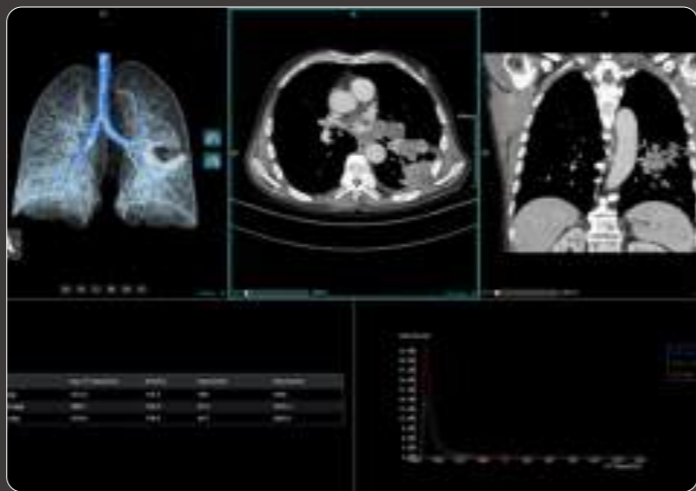
One-click Bone Removal



Vessel Analysis



Lung Nodule Analysis



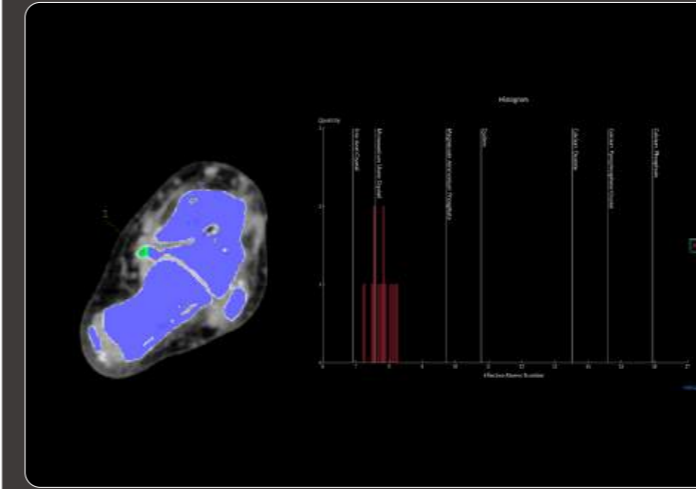
Lung Density Analysis



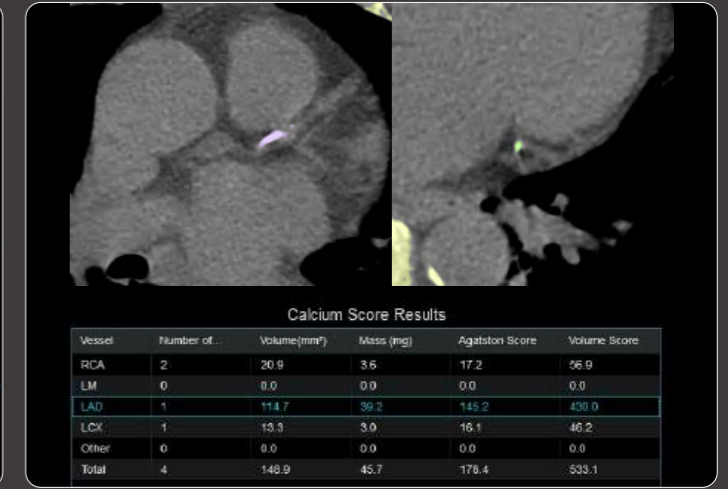
Opti-Reformat Spine



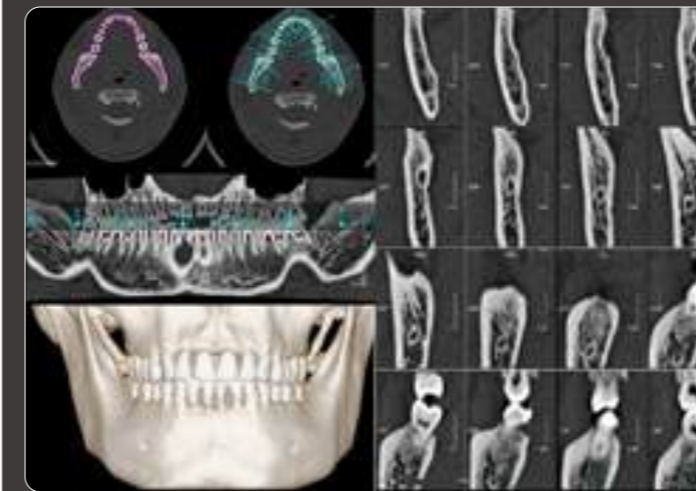
Bone Structure Analysis



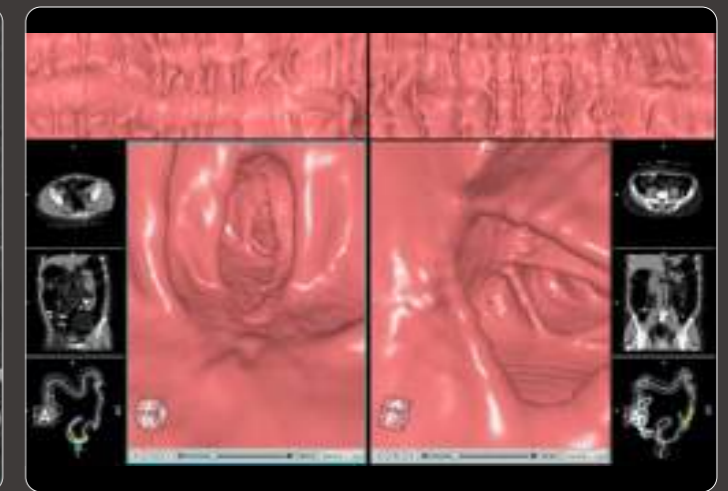
Dual Energy Analysis ✧✧



Calcium Scoring Analysis ✧✧



Dental Analysis



Colon Analysis

✧ Independent of CT, separate CE certification

✧✧ Optional

Save More with uEco Mode

During idle scanning, such as at night or on weekends, the user can enter uECO mode with one click. The uECO mode effectively reduces power consumption by partially powering down hardware components while maintaining essential functionality to ensure optimal system performance. In uECO

mode, the detector remains fully operational, ensuring that its internal components are in an active and stable state. This allows the machine to quickly reach the scanning state when resumed from uECO mode, thus maintaining high-quality image quality.

Daily power consumption**

24.8kWh

uEco Mode reduces power consumption by***

23%



** According to COCIR low power-scenario test
*** Compared to standard mode

Remote Service Keeps Running Smoothly

The uCT Orion Elite offers Remote-related functionalities. When unexpected issues arise, users can instantly connect with service engineers for timely support. Users can also perform remote

software updates, keeping the system performance optimized, enhancing operational efficiency, and unlocking the full potential of the CT.

uRemote Assistance

With uRemote Assistance, users can quickly connect with service engineers, who can remotely view the user interface and access the service interface to identify the cause of errors, providing guidance and timely support to reduce system downtime.



Remote Update

With Remote Update, users can perform regular software updates remotely without affecting daily scanning. Users can choose the installation time independently, keeping the system always up to date.



The background of the top half of the page is a futuristic, blue-toned digital landscape. It features glowing white and blue lines that resemble circuitry or data paths, set against a blurred background of light trails and bokeh effects. In the center-right of this area, the letters 'AI' are prominently displayed in a large, white, sans-serif font. The overall aesthetic is clean, modern, and high-tech.

AI-Driven Imaging for Advanced Clinical Insight

Driven by cutting-edge deep learning, AI is revolutionizing CT imaging. By enhancing spatial resolution, improving tissue contrast, and reducing various artifacts, these intelligent algorithms push

the boundaries of what CT can reveal. The resulting advances expand diagnostic insights, increase clinical confidence, and deliver reliable results that improve patient outcomes.

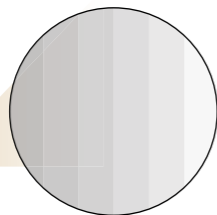
DELTA ✱ Deep Learning Trained Algorithm

DELTA is an advanced reconstruction algorithm powered by deep learning. In contrast to conventional methods such as Filtered Back-Projection (FBP) and Model-Based Iterative Reconstruction (MBIR), DELTA attains a balance among high image quality, low radiation dose, and fast reconstruction speed - a balance that has long been deemed challenging to

achieve. With this achievement, DELTA sets a new benchmark in CT imaging. Moreover, DELTA produces images with a more natural appearance compared to MBIR, making them more familiar and comfortable for radiologists to interpret. This provides radiologists with greater diagnostic confidence, while also potentially improving reading efficiency.

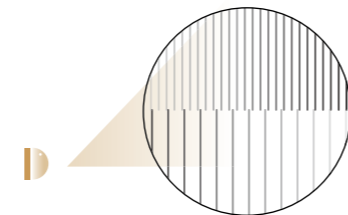
163%^{**}

Up to 163% low contrast detectability improvement



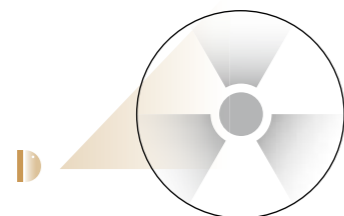
74%^{**}

Up to 74% spatial resolution improvement



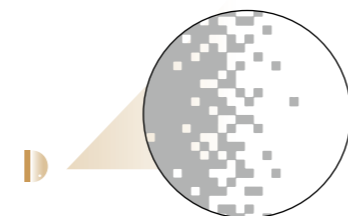
80%^{**}

Up to 80% dose reduction



98%^{**}

Up to 98% noise reduction

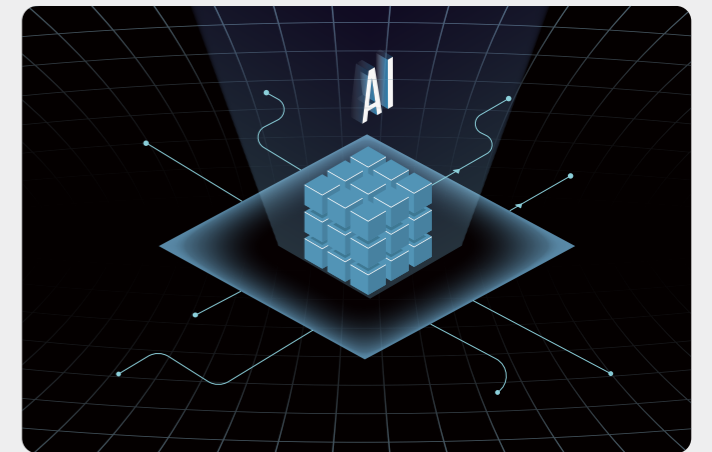


✱ Optional
✱✱ DELTA images compared with FBP based on phantom tests. Data on file.

Neural Networks as the Foundation of DELTA

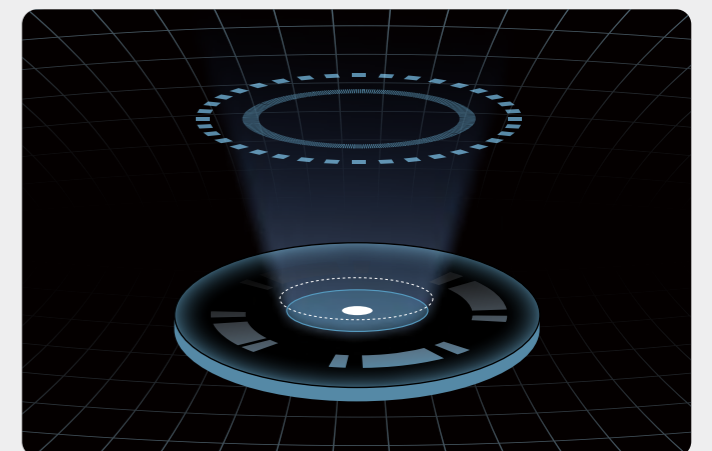
Specialized 3D network design

Unlike conventional 2D networks that process only one image at a time, 3D neural networks can handle volumetric data inputs. This capability preserves data continuity and enhances reconstruction speed, accuracy and reliability.



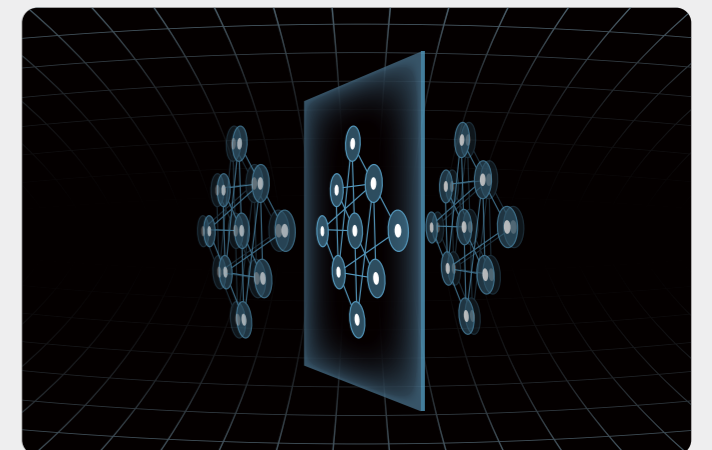
Millions-scale datasets for training

The network learns by comparing noisy inputs with higher-quality references. Trained on over one million cases from diverse clinical scenarios, it identifies and suppress noise while preserving anatomical detail.



Promote reliability and robustness

The network is pushed beyond routine — tested with rare, and extreme cases that mirror real-world clinical complexity.

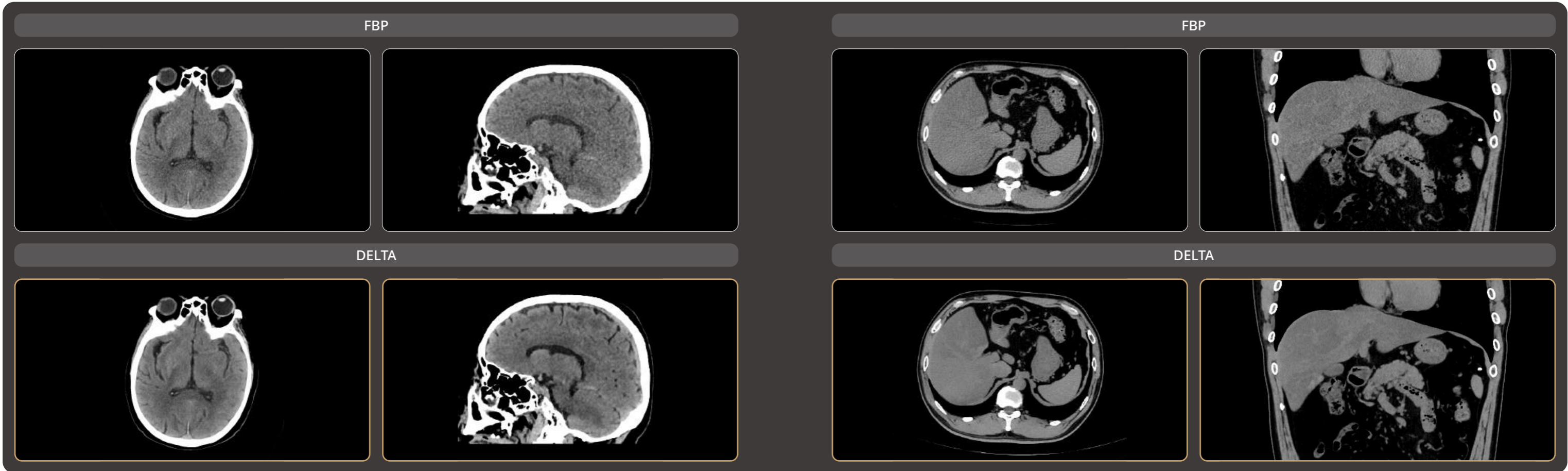


DELTA Reduces Image Noise and Enhances Low Contrast Detectability

The DELTA reconstruction algorithm provides distinct advantages in non-contrast brain CT, including mitigation of skull base artifacts, improved gray-white

matter differentiation, and overall enhancement of image quality.

The DELTA algorithm is capable of identifying and suppressing image noise, resulting in sharper, cleaner images that improve visualization of abdominal structures.

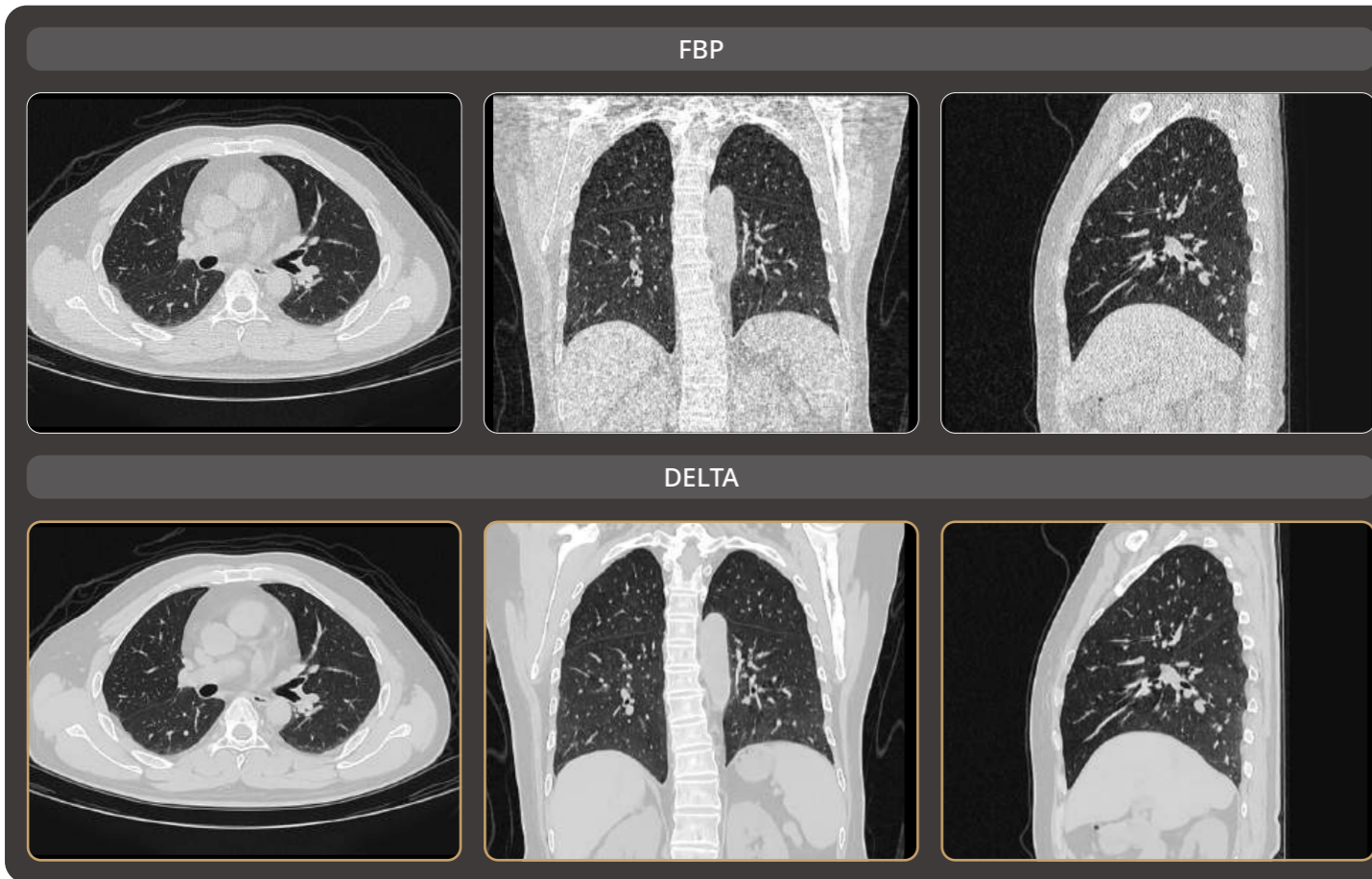


Scan Parameter	Recon Parameter	Contrast
kV: 120 mAs: 190 CTDIvol: 30.6 mGy Eff.Dose: 1.12 mSv	Matrix: 512 x 512 Slice: 1.0 x 0.8 mm HIR: H_SOFT_B DL-Denoise level : 3 WW/WL: 80/40	—

Scan Parameter	Recon Parameter	Contrast
kV: 120 mAs: 101 Scan length: 452 mm CTDIvol: 8.8 mGy Eff.Dose: 6.3 mSv	Matrix: 512 x 512 Slice: 1.0 x 0.8 mm HIR: B_VSOFT_B DL-Denoise level : 3 WW/WL: 300/40	—

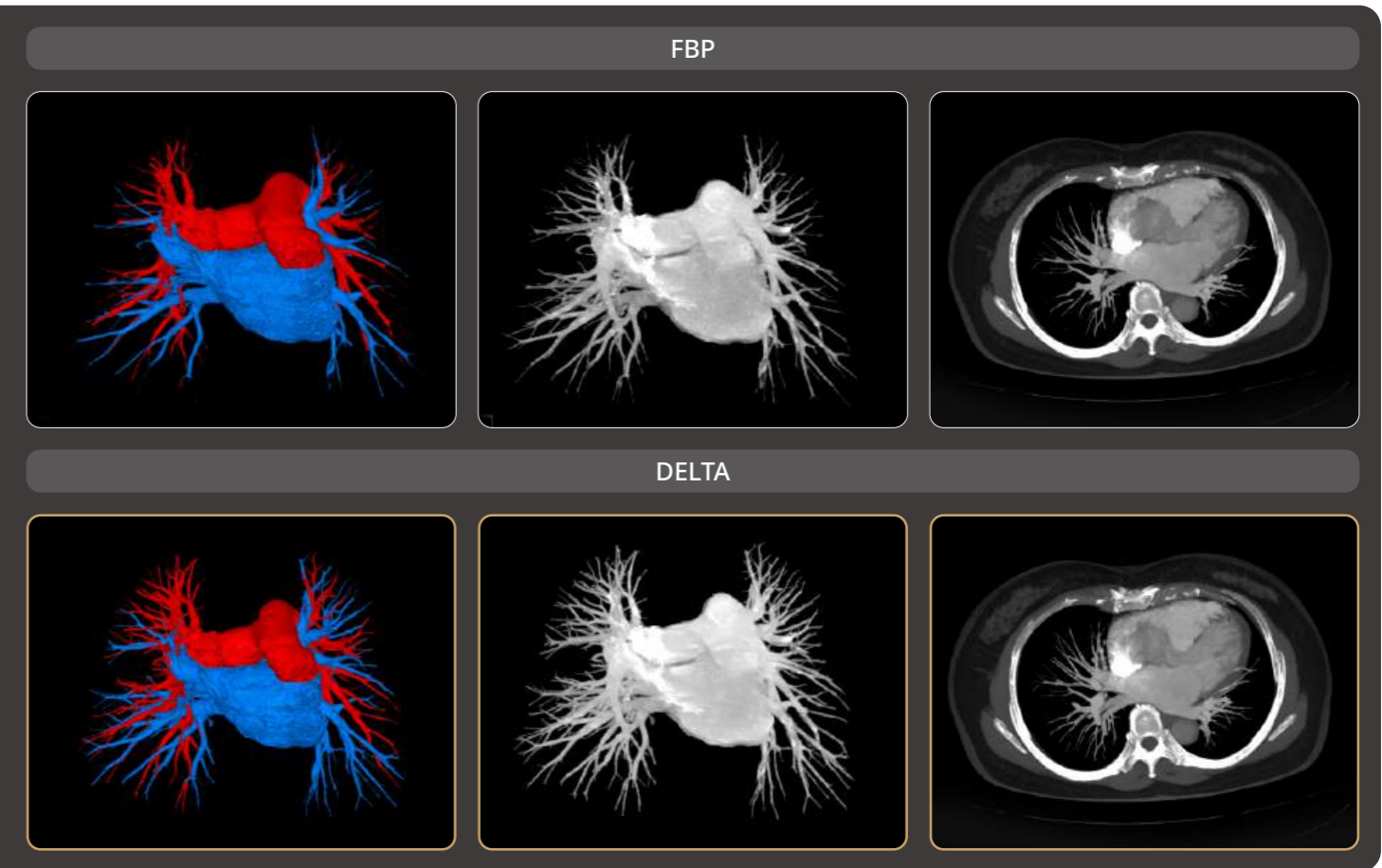
DELTA Improves Lung Texture Visualization in Low-Dose Scans

DELTA suppresses image noise and mitigates shoulder artifacts, enabling high-quality lung imaging even at low-dose scanning conditions.



DELTA Improves Visualization of Pulmonary Vessels

DELTA reconstruction enhances distal vessel visualization compared with conventional algorithms. In this case, both pulmonary arteries and veins are clearly visualized, facilitating subsequent vascular analysis.



Scan Parameter	Recon Parameter	Contrast
kV: 120 mAs: 10 Scan length: 277mm CTDIvol: 0.9 mGy Eff.Dose: 0.4 mSv	Matrix: 512 x 512 Slice: 1.0 x 0.8 mm HIR: B_SOFT_B DL-Denoise level : 3 WW/WL: 1400/-400	—

Scan Parameter	Recon Parameter	Contrast
kV: 120 mAs: 70 Scan length: 249 mm CTDIvol: 6.1 mGy Eff.Dose: 2.4 mSv	Matrix: 512 x 512 Slice: 1.0 x 0.8 mm HIR: B_VSOFT_B DL-Denoise level : 3 WW/WL: 300/40	350 mgI/ml 60 ml 4.6ml/s

DELTA Reduces Dose without Compromising Image Quality

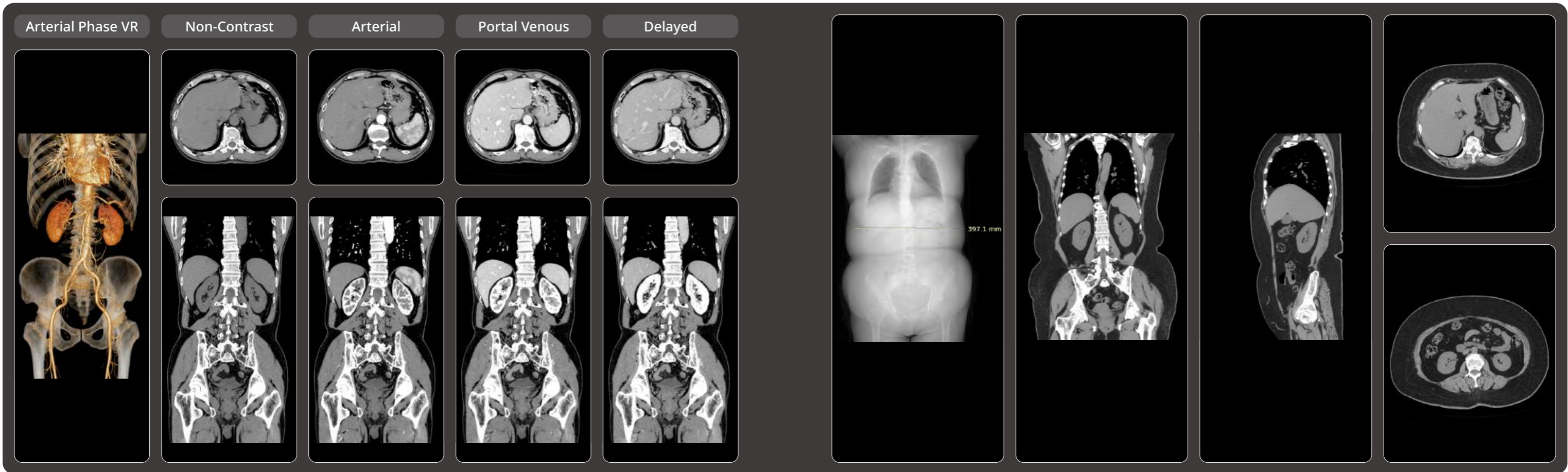
DELTA delivers low radiation doses while maintaining high image quality. In this multiphase chest-abdomen examination, the CTDIvol was 4.7 mGy, allowing

visualization of sub-centimeter cystic structures and liver enhancement patterns.

DELTA Optimizes CT Imaging for Patients with High BMI

The uCT Orion Elite combines high-power scanning with the DELTA reconstruction algorithm. In this case, with a patient BMI of 31.2, the system delivers

ultra-low noise images and exceptional low-contrast resolution, supporting confident diagnosis even in challenging scenarios.



Scan Parameter	Recon Parameter	Contrast
kV: 100 mAs: 90 Scan length: 581 mm CTDIvol: 4.7 mGy Eff.Dose: 4.2 mSv	Matrix: 512 x 512 Slice: 1.0 x 0.8 mm HIR: B_VSOFT_B DL-Denoise level : 3 WW/WL: 300/40	350 mg/ml 70 ml 3.0 ml/s

Scan Parameter	Recon Parameter	Contrast
kV: 120 mAs: 121 Scan length: 618 mm CTDIvol: 10.6 mGy Eff.Dose: 9.5 mSv	Matrix: 512 x 512 Slice: 1.0 x 0.5 mm HIR: B_VSOFT_B DL-Denoise level : 3 WW/WL: 300/40	—

Head Motion Artifacts Pose a Challenge in Medical Imaging

Head motion artifacts are patient-based artifacts caused by voluntary or involuntary movement during image acquisition. These artifacts, such as blurring, streaking, or shading, lead to misregistration that can compromise diagnostic accuracy^[1]. In head scanning,

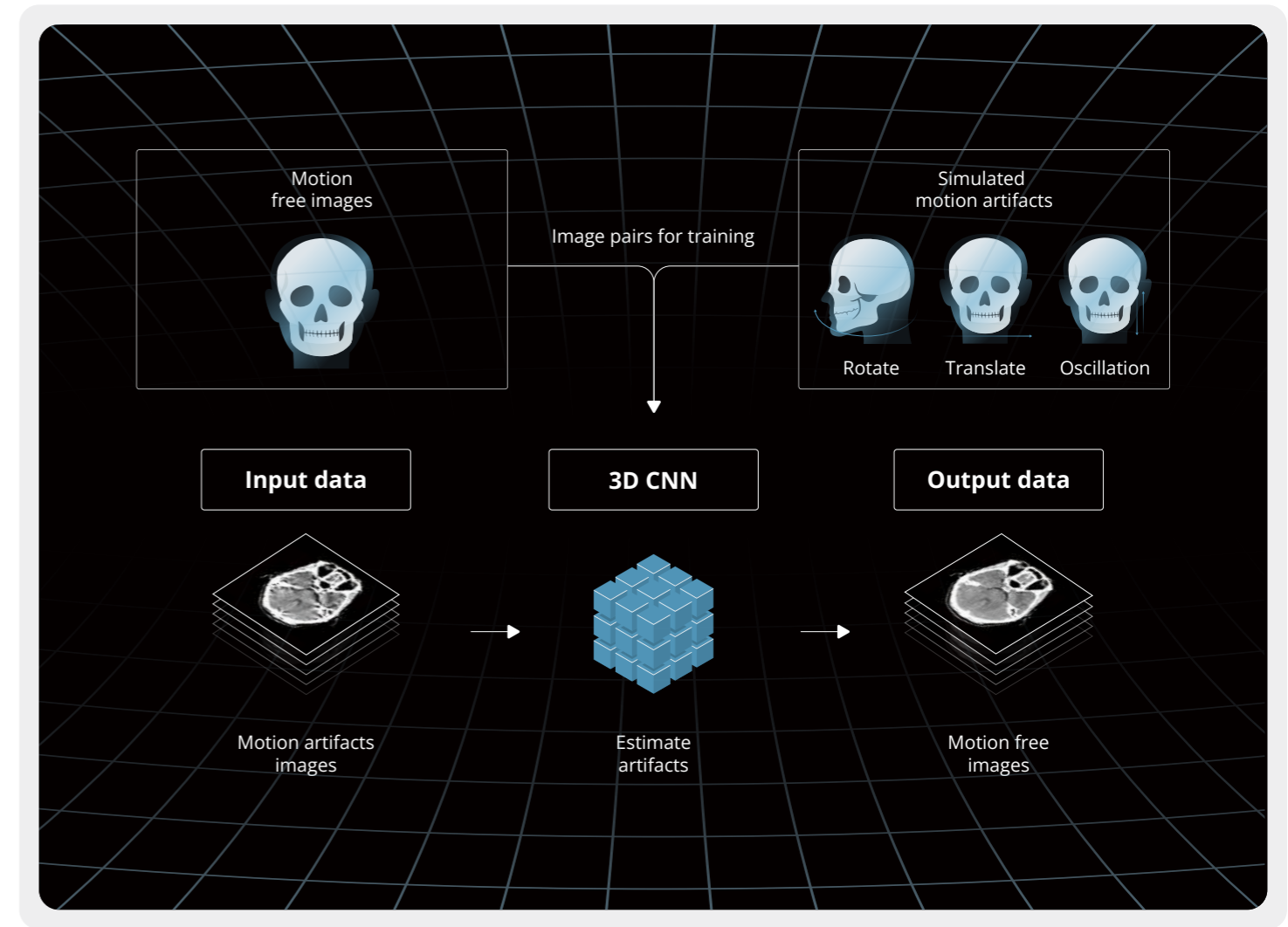
nearly 21% of patients experience head movements that cause perceptible motion artifacts, leading to data discontinuities and significantly degrading image quality^[2].



Motion Freeze AI for Suppression of Head Motion Artifacts

Patient head movement typically involves multiple motion patterns, which makes it challenging to obtain large datasets of head motion artifacts for training deep learning algorithms. To construct the training dataset, the Motion Freeze algorithm generates simulated artifacts on gold-standard images

along the X, Y, and Z axes, encompassing rotation, translation, oscillation, and mixed motion patterns. By introducing diverse motion artifacts, this approach enables the trained network model to handle a broad spectrum of motion conditions.



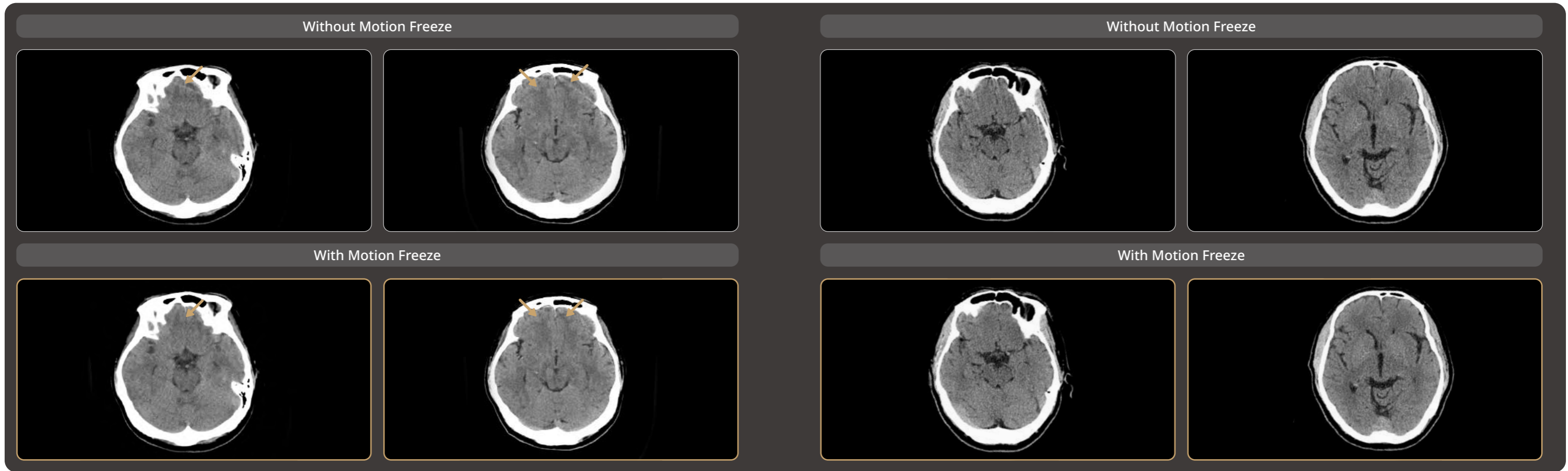
[1] Barrett JF, Keat N. Artifacts in CT: recognition and avoidance. Radiographics. 2004;24 (6): 1679-91. doi:10.1148/rg.246045065 - Pubmed citation

[2] Hernandez, D., Eldib, M. E., Hegazy, M. A., Cho, M. H., Cho, M. H., & Lee, S. Y. (2018). A head motion estimation algorithm for motion artifact correction in dental CT imaging. Physics in Medicine & Biology, 63(6), 065014.

Head Motion Artifacts Suppression

Motion Freeze effectively suppresses head motion artifacts, providing a clear view of brain structures without obscuring lesions. By minimizing the need for

repeated scans, it saves time, conserves resources, and avoids unnecessary radiation exposure for patients.



Head Axial	Recon Parameter	Contrast
kV: 120 mAs: 299 CTDIvol: 55.4 mGy Eff.Dose: 1.7 mSv	Matrix: 512 x 512 Slice: 5.5 x 5.5 mm HIR: H_SOFT_B WW/WL: 80/35	—

Head Axial	Recon Parameter	Contrast
kV: 120 mAs: 277 CTDIvol: 38.447mGy Eff.Dose: 1.13mSv	Matrix: 512 x 512 Slice: 5.5x5.5 mm HIR: H_SOFT_B WW/WL: 80/35	—



Unlocking Clinical Potential for Expanded Applications

Robust and reliable hardware forms the backbone of the uCT Orion Elite. Its stable performance streamlines routine examinations, while the high-performance system handles complex scanning scenarios with ease. In addition, the uCT Orion Elite meets a broader range of diagnostic requirements and provides sustained clinical value.

uCT Orion Elite Delivers Greater Clinical Value

Handle routine scans with ease

The high-performance hardware provides robust support for routine scanning. Utilizing the 80 slices Z-Detector's 0.55mm slice thickness and high sampling rate, the system produces high-quality images with sharp detail visualization. The advanced tube cooling design is well-suited for high-throughput scanning.



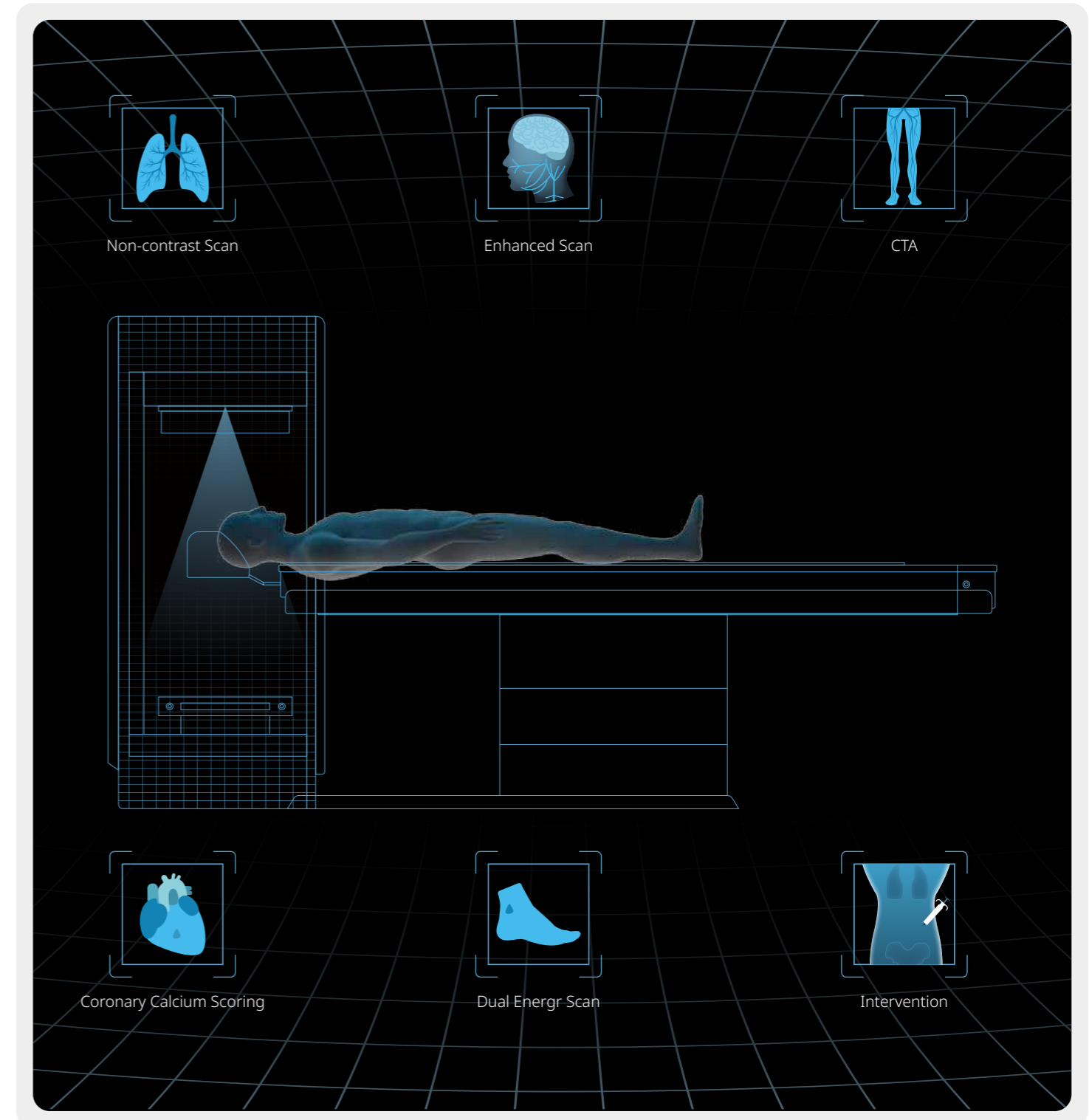
Turn challenging into routine

High tube heat dissipation enables the tube to sustain prolonged exposure during large-range scans, preventing interruptions from heat accumulation. With a maximum tube input power of 48 kW, the system delivers high-quality imaging even in demanding clinical scenarios, such as examinations of obese patients.



Release more clinical potential

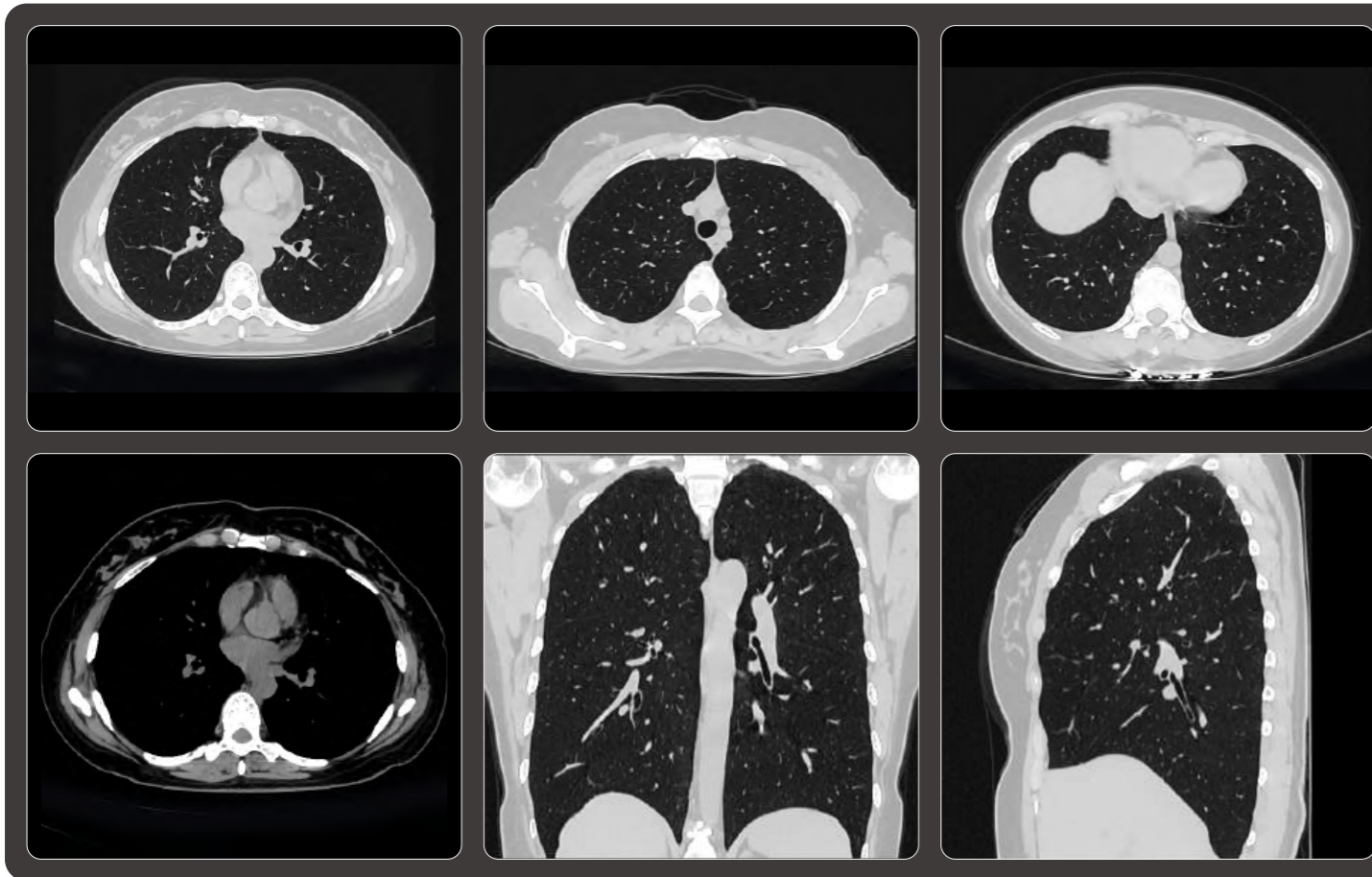
uCT Orion Elite unlocks greater clinical potential. It supports ECG-gated coronary artery calcium score^{**} for early heart disease assessment and enables dual-energy scanning^{**} for visualization and compositional analysis of gout tophi. In addition, it offers four scan modes for interventional^{**} imaging.



※ Optional

60kV Low Dose Chest Scan Images

The tube supports a minimum of 60 kV scanning, effectively reducing radiation dose for slender or pediatric patients without compromising image quality.



Scan Parameter

0.71 sec/rotation
 kV: 60 mAs: 140
 Scan length: 282 mm
 CTDIvol: 1.067 mGy
 Eff.Dose: 0.46 mSv

Recon Parameter

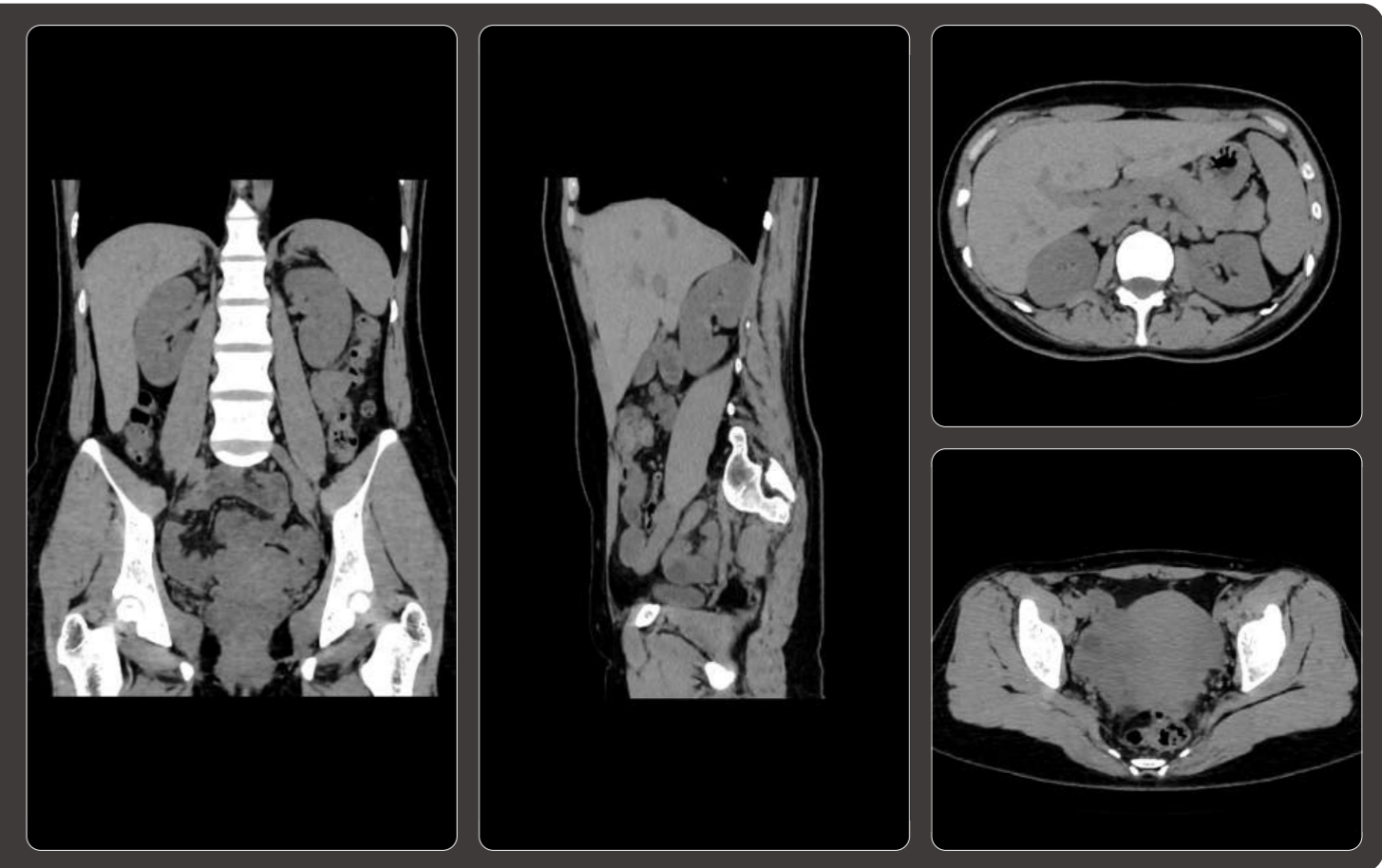
Matrix: 512 x 512
 Slice: 1.0x 0.8 mm
 HIR: B_SHARP+
 DL-Denoise: 3
 WW/WL: 400/40

Contrast

—

Low-Noise Abdomen Images

The low-noise Z-Detector, combined with deep learning algorithms, reduces image noise and enhances soft-tissue contrast, improving visualization of abdominal structures and supporting confident diagnoses.



Scan Parameter

0.71 sec/rotation
 kV: 120 mAs: 40
 Scan length: 368 mm
 CTDIvol: 3.5 mGy
 Eff.Dose: 2.1 mSv

Recon Parameter

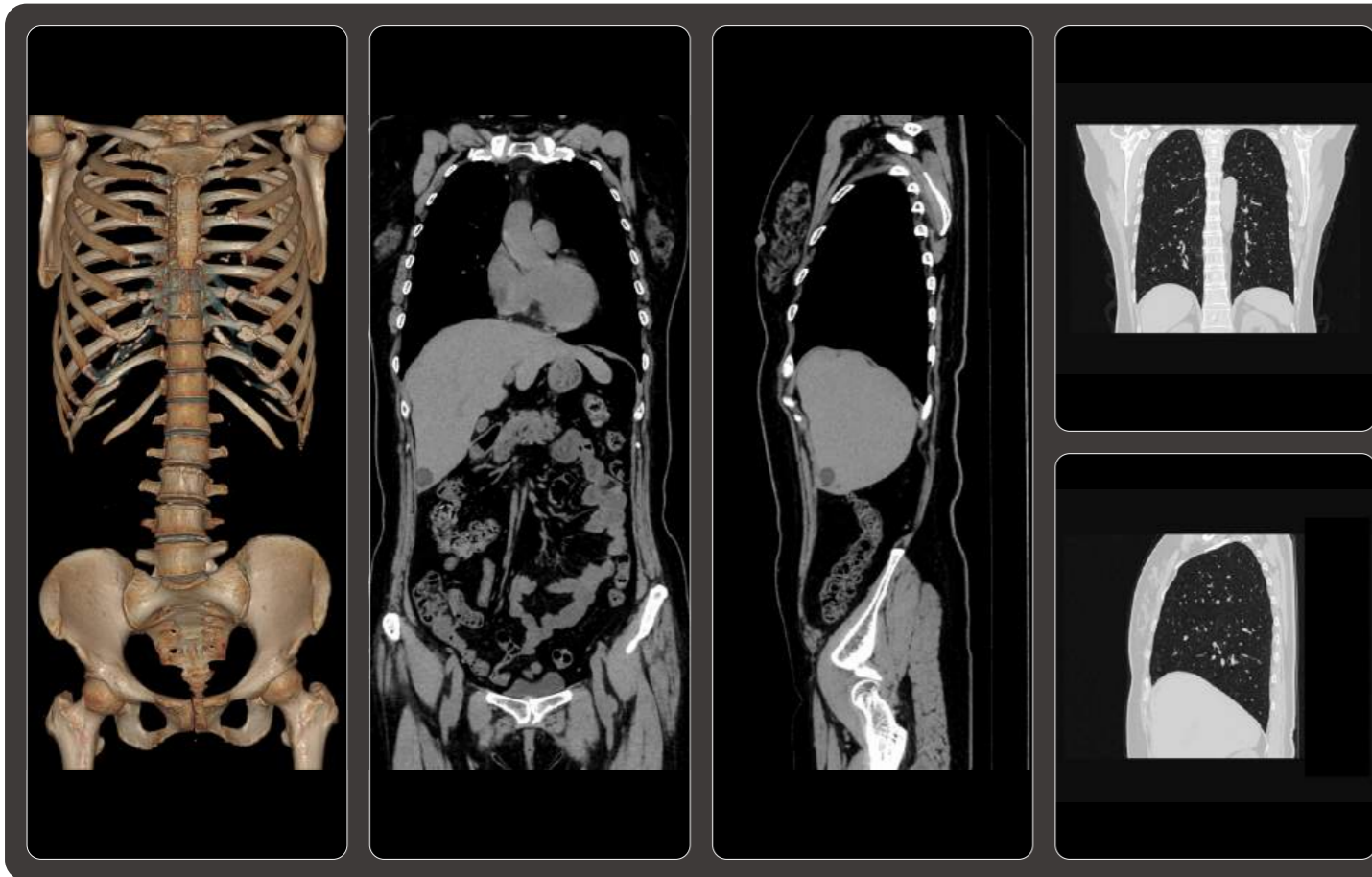
Matrix: 512 x 512
 Slice: 1.0 x 0.8 mm
 HIR: B_VSOFT_B
 DL-Denoise: 3
 WW/WL: 300/40

Contrast

—

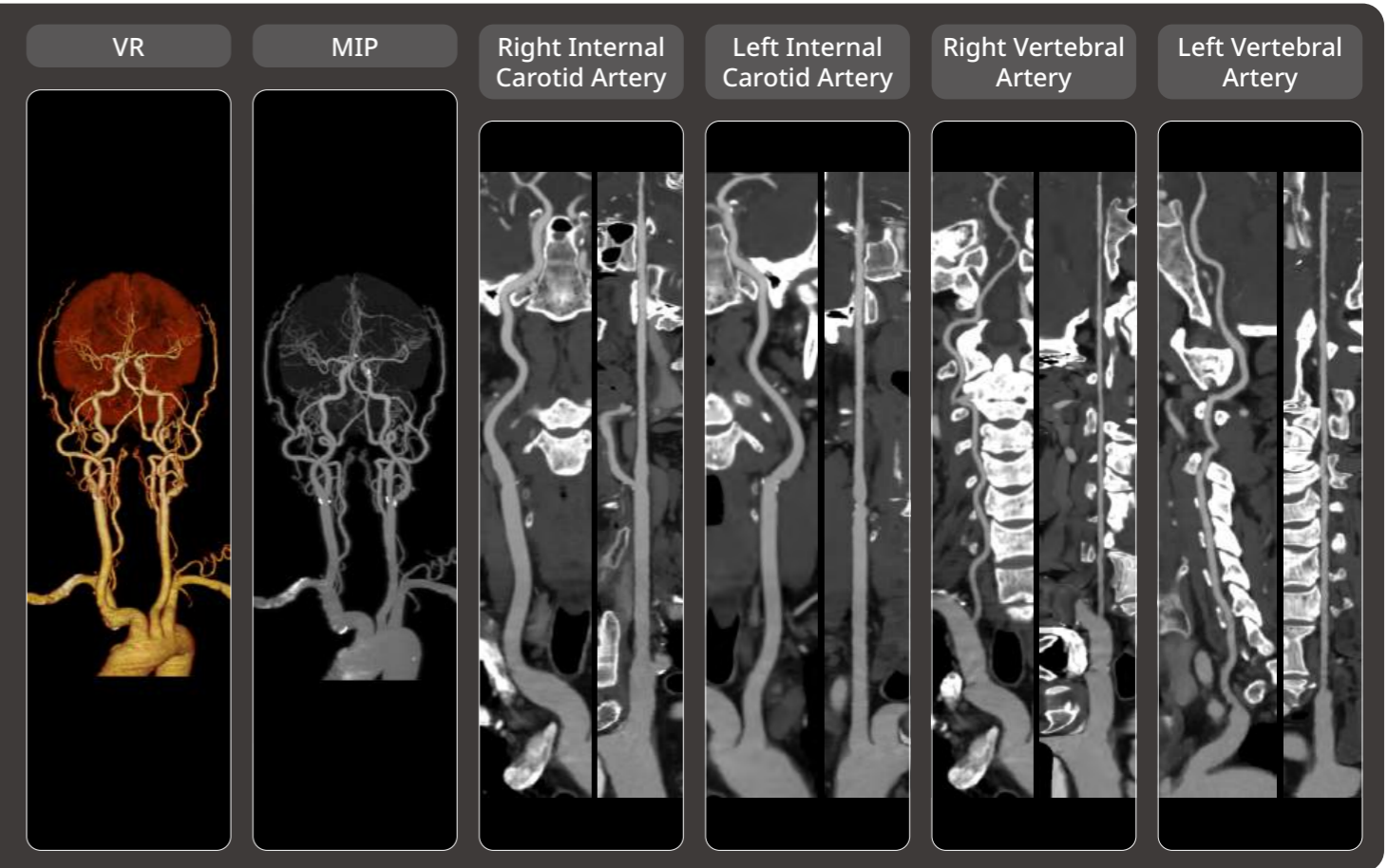
Chest–Abdomen Combined Scan Images

For large-range chest and abdomen scans, the X-ray tube’s efficient heat dissipation supports prolonged exposure, while the Organ-base Auto ARLARA mA function delivers high-quality images for both regions.



Head & Neck CTA Images

The uCT Orion Elite, equipped with a Z - detector and combined with DELTA algorithm, it substantially improves image sharpness, offering clear visualization of blood vessels to facilitate vessel evaluation.



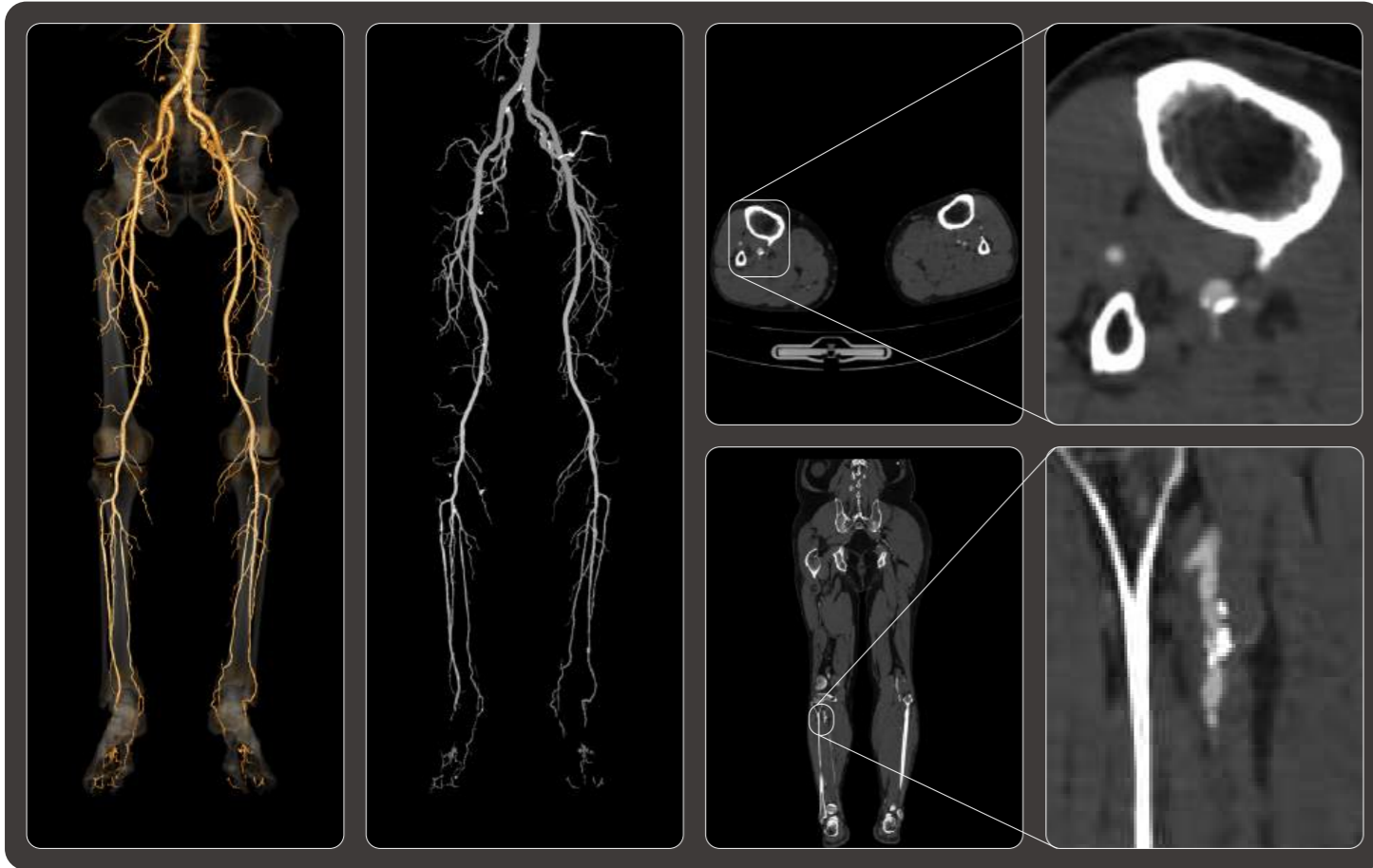
Scan Parameter	Recon Parameter	Contrast
0.71 sec/rotation kV: 120 mAs: 94 Scan length: 636 mm CTDIvol: 8.2 mGy Eff.Dose: 7.6 mSv	Matrix: 512 x 512 Slice: 1.0 x 0.5 mm HIR: B_SOFT0B_SHARP+ DL-Denoise: 3 WW/WL: 1400/-400, 300/40	—

Scan Parameter	Recon Parameter	Contrast
0.71 sec/rotation kV: 100 mAs: 176 Scan length: 360 mm CTDIvol: 9.1 mGy Eff.Dose: 0.7 mSv	Matrix: 512 x 512 Slice: 1.0 x 0.5 mm HIR: H_SOFT+ DL-Denoise: 3 WW/WL: 300/45	350 mg/ml 55 ml 4.5 ml/s

Lower Extremity CTA Images

Large-range lower extremity CTA scans pose a significant challenge for CT. With its X-ray tube's high heat dissipation and the coverage of its 80-slice

detector, the uCT Orion Elite efficiently performs these scans while maintaining excellent image quality.



Scan Parameter

0.71 sec/rotation
 kV: 100 mAs: 94
 Scan length: 1165 mm
 CTDivol: 4.9 mGy
 Eff.Dose: 8.7 mSv

Recon Parameter

Matrix: 512 x 512
 Slice: 1.0 x 0.5 mm
 HIR: B_SOFT
 DL-Denoise: 3
 WW/WL: 300/45

Contrast

350 mg/ml
 95 ml
 4ml/s



Pulmonary CTA Images

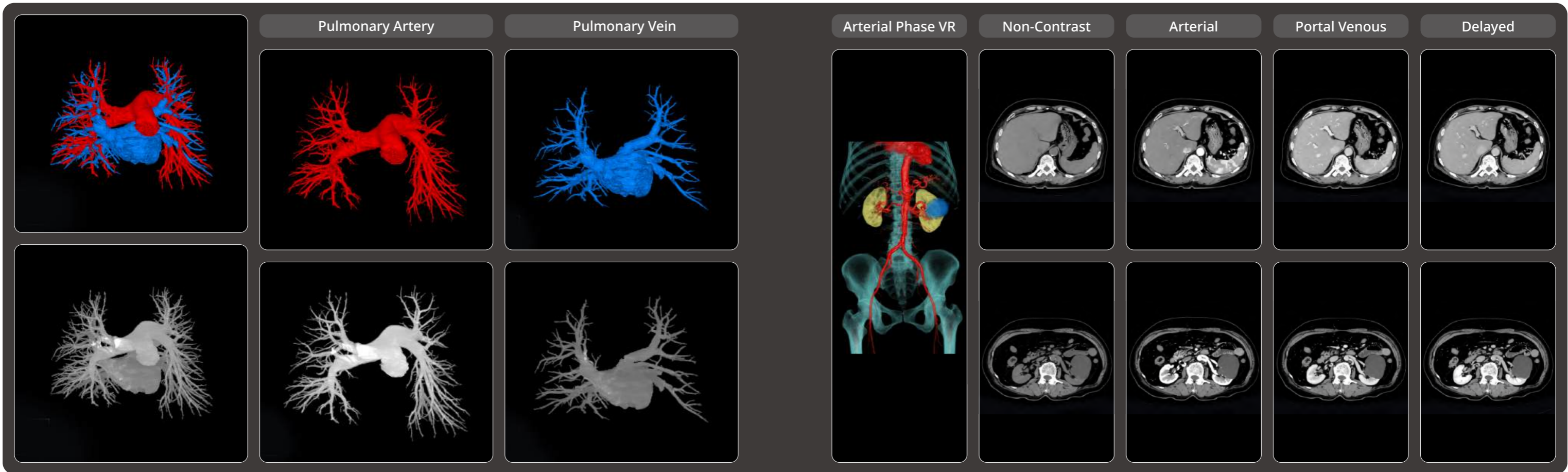
Pulmonary arteriovenous CTA impose high demands on scanning speed and system stability. The uCT Orion Elite efficiently performs these scans, clearly

visualizing distal pulmonary vessels to support straightforward and efficient assessment.

Abdominal Multiphase Contrast-Enhanced Images

The X-ray tube of the uCT Orion Elite supports long exposure, enabling smooth completion of four-phase abdominal contrast-enhanced scans. Combined with

DELTA, it reduces radiation dose for the four-phase scan while maintaining high image quality.



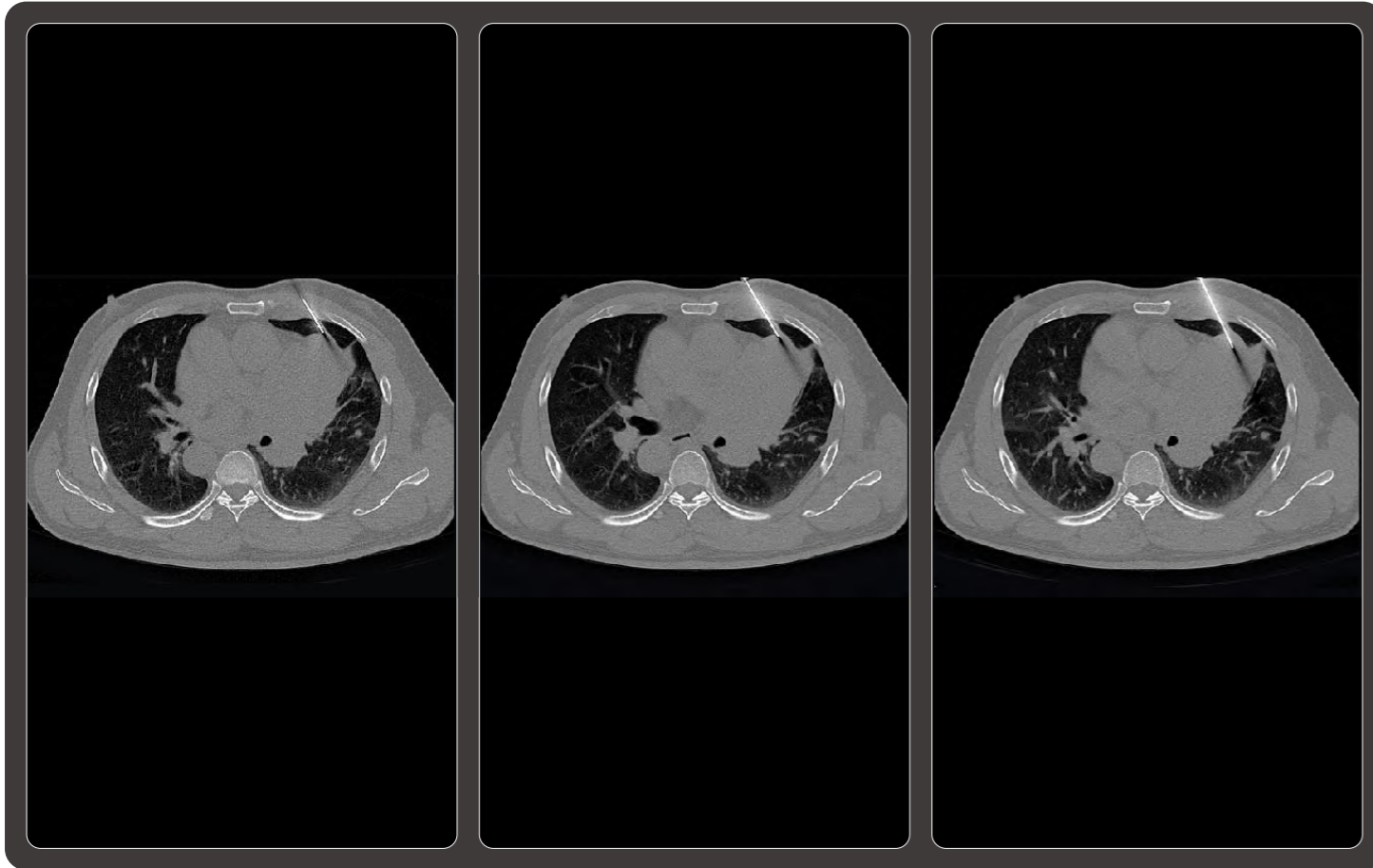
Scan Parameter	Recon Parameter	Contrast
0.71 sec/rotation kV: 70 mAs: 214 Scan length:298 mm CTDIvol: 3.2 mGy Eff.Dose: 1.43 mSv	Matrix: 512 x 512 Slice: 1.0 x 0.5 mm HIR: B_SOFT DL-Denoise: 3 WW/WL: 400/40	350 mg/ml 45 ml 4.0 ml/s

Scan Parameter	Recon Parameter	Contrast
0.71 sec/rotation kV: 100 mAs: 120 Scan length:514 mm CTDIvol: 6.3 mGy Eff.Dose: 5.1 mSv	Matrix: 512 x 512 Slice: 1.0 x 0.8 mm HIR: B_SOFT DL-Denoise: 3 WW/WL: 300/40	350 mg/ml 65 ml 3.5 ml/s

CT-guided Intervention ✖

The uCT Orion Elite is equipped with four interventional scanning modes that adapt to the requirements of a wide range of clinical procedures.

In this example, the images were acquired using the single axial scanning mode.



Scan Parameter

Scan Mode: Single Axial
 kV: 120 mAs: 29
 CTDIvol: 13.47 mGy
 Eff.Dose: 0.187 mSv

Recon Parameter

Matrix: 512 x 512
 Slice: 2.75 x 2.75 mm
 HIR: B_SHARP_C
 WW/WL: 2026/56

Contrast

—



Dual-Energy Scan Images ✖

The uCT Orion Elite offers dual-energy scanning and is equipped with spectral analysis applications, enabling the detection of gout stones in bones and joints.

Uric Acid-Calcium Base Material Pair image

Calcium Images Uric Acid Images L: 6.5 mm W: 3.5mm

Uric Acid
Calcium

Histogram

Query

Uric Acid-Calcium
Monochromal Uric Acid
Monochromal Calcium
Uric Acid
Calcium
Uric Acid-Calcium
Uric Acid-Calcium
Uric Acid-Calcium

Uric Acid-Calcium Number

Scan Parameter

0.71 sec/rotation
kV: 140&80 mAs: 40&156
Scan length:210 mm
CTDIvol: 9.0 mGy
Eff.Dose: 3.2 mSv

Recon Parameter

Matrix: 512 x 512
Slice: 1.0 x 1.0 mm
HIR: B_SOFT_B&B_SHARP_AA
WW/WL: 2600/800, 300/45

Contrast

—

Coronary Artery Calcium Score ✖

The uCT Orion Elite provides gated calcium scoring, delivering low-dose, high-quality cardiac images while segmenting calcified voxels and quantifying calcium volume, calcium mass, and Agatston score.

LAD calcification spot LCX calcification spot

Calcium Score Results

Vessel	Number of ...	Volume(mm ³)	Mass (mg)	Agatston Score	Volume Score
RCA	2	20.9	3.6	17.2	56.9
LM	0	0.0	0.0	0.0	0.0
LAD	1	114.7	39.2	145.2	430.0
LCX	1	13.3	3.0	16.1	46.2
Other	0	0.0	0.0	0.0	0.0
Total	4	148.9	45.7	178.4	533.1

Scan Parameter

0.71 sec/rotation
kV: 120 mAs: 30
Scan length:150 mm
CTDIvol: 3.718 mGy
Eff.Dose: 0.79 mSv

Recon Parameter

Matrix: 512 x 512
Slice: 2.2 x 2.2 mm
HIR: C_SOFT_B
WW/WL: 600/60

Contrast

—

uCT Orion Elite

3.8 MHU Tube

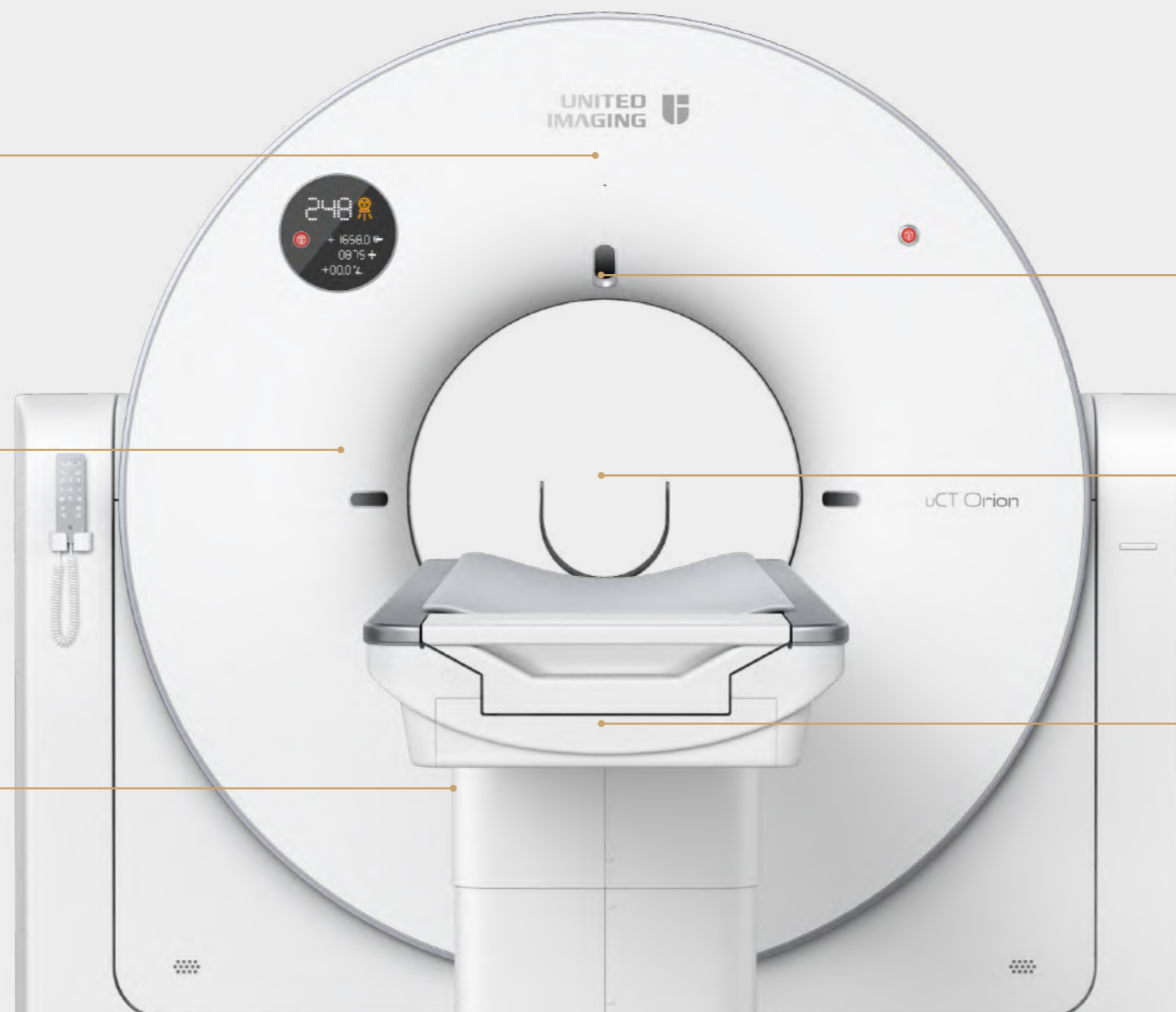
The maximum tube heat dissipation up to 746 kHU/min

48kW High Voltage Generator

Supports high-power exposure

80-Slice Z-detector

Z-detector with 0.55 mm pixel size and up to 4800 views per rotation



uAI Vision

AI to improve scan efficiency and enable real-time patient monitoring

Gantry

70 cm bore size

Patient Table

The maximum table load 250 kg

DELTA[※]

Deep learning trained algorithm that enhances diagnostic confidence without compromise.

Motion Freeze

AI for suppressing head motion artifacts, reducing the need for head repeated scans.

Dual Energy[※]

Supports dual-energy scanning and analysis to provide more diagnostic information.

Coronary Artery Calcium Score[※]

Supports cardiac calcium scoring and analysis.

Intervention[※]

Supports selection of intervention-related software and corresponding hardware.

User in Mind Design

Focusing on user experience, our system combines precision with a lightweight and artistic design, providing patients with a sense of ease and comfort during their medical procedures. With uCT Orion Elite, we're committed to delivering trusted medical care that respects the patient's needs and preferences.



User-friendly Design

The product design delivers comfort, safety, efficiency and ease-of-use. By applying ergonomic principles, uCT Orion Elite combines innovative design with optimal functionality in order to provide the best possible user experience and optimize patient comfort during the examination.



Sophisticated Craftsmanship

Driven by the principles of precision design, we meticulously refine every aspect of our technology.



Pleasing Aesthetics

Our design scheme integrates modern aesthetics with minimalism, presenting a seamless fusion of traditional and modern styling.