
PHILIPS
Computed Tomography
6000 iCT
At the heart of advanced imaging
Computed Tomography 6000 iCT

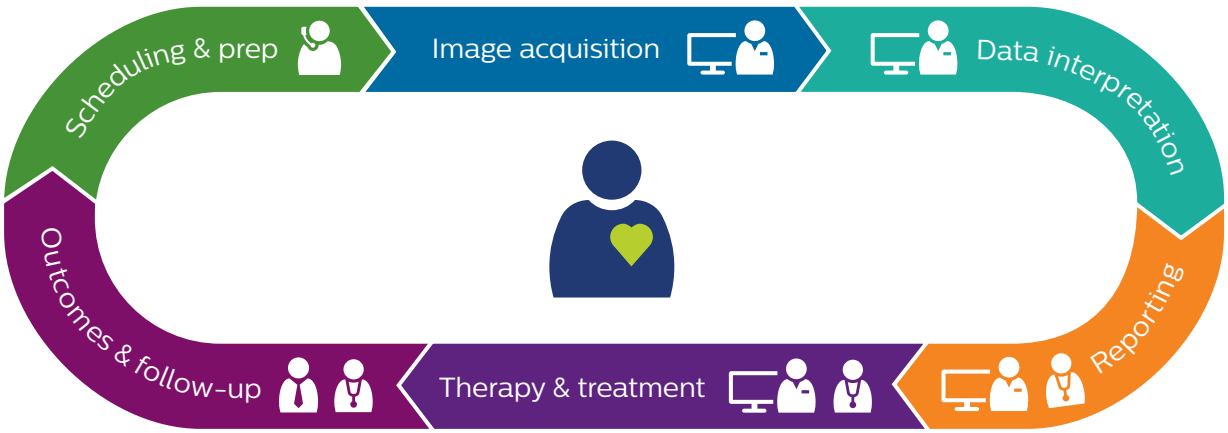
At Philips, we believe in working together to break down boundaries, remove complexity and deliver a seamless approach to healthcare. In imaging, that means seamlessly connecting data, technology and people. Our integrated imaging solutions for diagnosis and treatment are enabling more connected care and more confident clinical decision-making. Because today, health knows no bounds and neither should healthcare.

Connecting data and technology to empower the people behind the image

Imaging is all about providing accurate information to guide better patient care. But in order to create more value for patients, the elements that form the imaging enterprise have to work together better.

We see imaging as an integrated system in which data and technology must connect intuitively and automatically to empower the people who rely on them. By focusing on the specific needs of the people behind the image, we can address the most pressing needs of imaging today: to team up for data-driven practice management; create a better experience for patients and staff; lower costs for administrators and health systems; and above all, increase diagnostic confidence for improved patient care.

A systems view



Creating a seamless care environment requires meeting the needs of the people behind the image – patients, technologists, radiologists and administrators – with meaningful solutions to address their biggest challenges.

Gain critical clinical insights

Achieve diagnostic confidence through comprehensive cardiovascular capabilities for high-quality cardiac imaging at low dose across a wide range of cardiac patient types and exams.

Stay at the forefront of performance

Enhance patient-focused care with advanced solutions for workflow, visualization and analysis.

Make the most of your investment

Enable continuous improvement and manage operational costs, while easily keeping your technology up to date.

Your cardiovascular challenges, answered

Cardiac exams present complexities like no other. The Philips Computed Tomography (CT) 6000 iCT solution enhances your patient care with comprehensive capabilities and advanced tools for high-quality, low-dose cardiovascular imaging, enhancing diagnostic confidence and helping you to optimize value for your investment.

Overcome challenges in cardiac imaging

With comprehensive cardiovascular capabilities, CT 6000 iCT helps you uncover critical cardiovascular insights at low dose for even the most challenging of patients and conditions.

Achieve up to 80% lower dose with Step & Shoot Cardiac*

iCT allows for up to 80% lower dose in prospective cardiac scanning with Step & Shoot Cardiac*

Low contrast volume and low dose

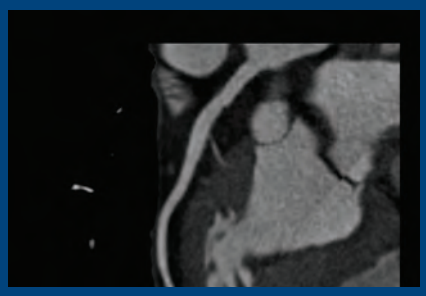
Scan coronary arteries to accurately aid in detecting stenosis

* The dose reduction is the mean effective dose compared to the background radiation dose using standard reconstruction techniques.

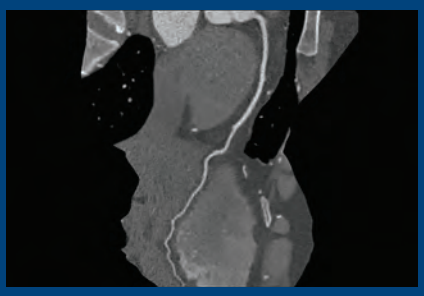
Step & Shoot Cardiac imaging

Philips Step & Shoot Cardiac imaging is a prospective, ECG-gated axial scanning mode in which X-rays are turned on only during the physiologic phase of interest to allow for low-dose, high-quality cardiac scanning.

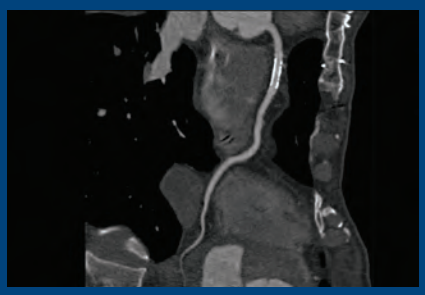
Low dose and high quality across a range of patient types



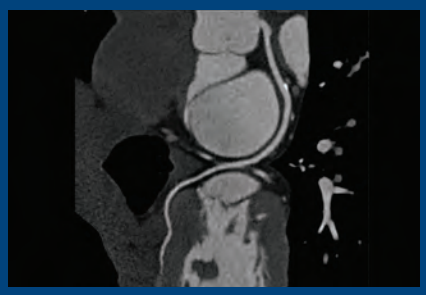
High heart rates



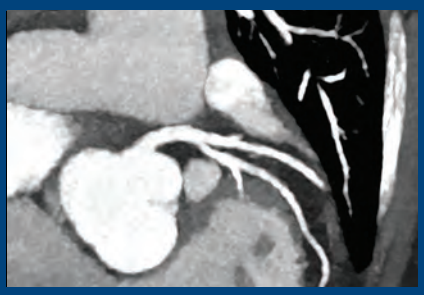
Irregular heart rates



Coronary stents



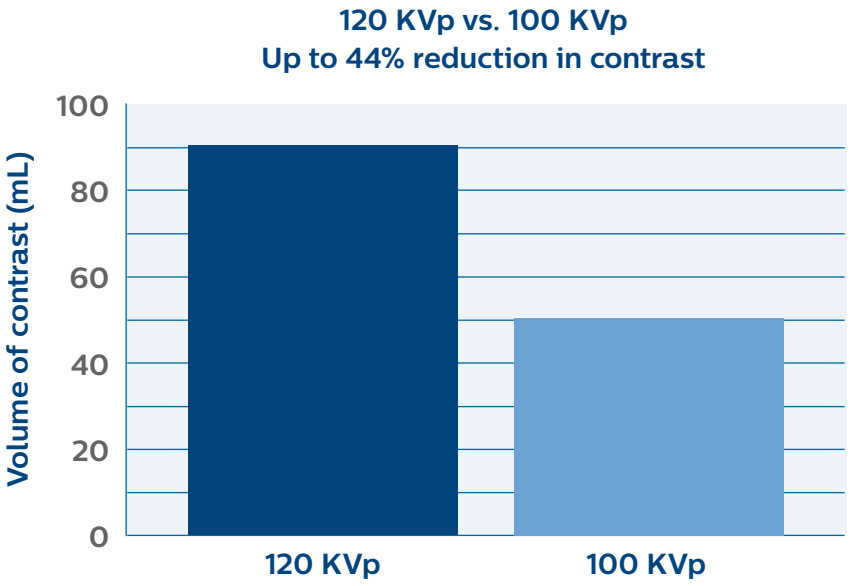
Calcium blooming



Bariatric patients

In a study at Cleveland Clinic using the CT 6000 iCT, researchers were able to reduce the volume of contrast used for cardiac assessment by up to 44%* with significantly higher image attenuation and similar image noise.

Case study: 44% reduction in contrast volume



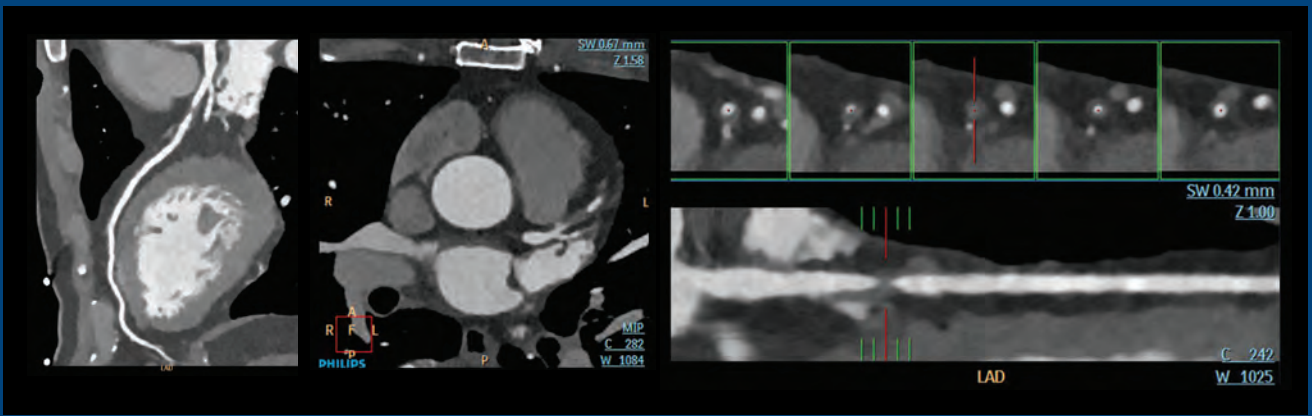
	100 KVp (n=56) mean (±SD)	**120 KVp (n=27)** mean (±SD)	**P**
Attenuation, HU	399 (±61)	281 (±48)	<0.0001*
Image noise, HU	28 (±4)	26 (±3)	0.13
SNR	15 (±3)	11 (±2)	<0.0001*

*Comparison was done using 100 KVp protocol versus 120 KVp protocol.

The combination of anatomical and functional data in one scan allows for comprehensive cardiovascular assessment.

Gain critical insights

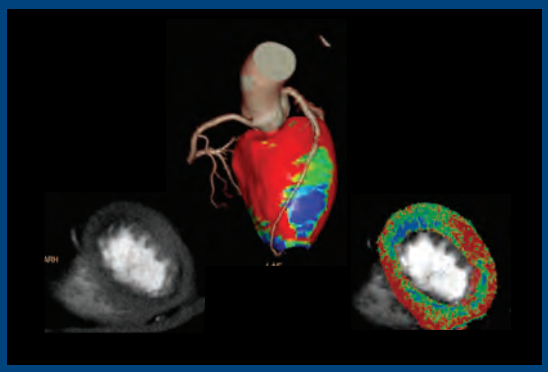
Cardiac assessment helped the clinician to identify a lesion in LAD at a low dose of 0.9 mSv



Scan parameters: 100 kVp, 110 mAs, heart rate: 59 BPM, $CTDI_{vol}$: 5.2 mGy, DLP: 67.1 mGy*cm, effective dose: 0.9 mSv (k=0.014)[1]

Images courtesy of AMAKUSA Medical Center, Japan.

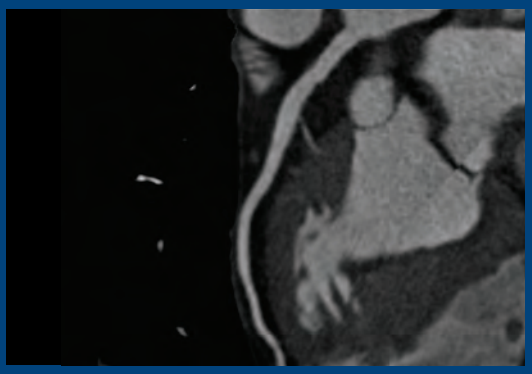
Enable myocardial perfusion defect assessment with diagnostic sensitivity similar to MR



Scan parameters: 120 kVp, 300 mAs, $CTDI_{vol}$: 25.6 mGy, DLP: 320 mGy*cm, effective dose: 4.5 mSv (k=0.014)[1]

Images courtesy of SE Kardiologia, Semmelweis University, Hungary.

Step & Shoot Cardiac imaging offers the ability to scan patients with high heart rates without compromising coronary anatomy



Scan parameters: 120 kVp, 360 mAs, $CTDI_{vol}$: 29.9 mGy, DLP: 382.7 mGy*cm, 109 BPM, effective dose: 5.3 mSv (k=0.014)[1]

Images courtesy of SE Kardiologia, Semmelweis University, Hungary.

CT 6000 iCT offers diagnostic confidence through advanced imaging capabilities

Achieve diagnostic confidence and streamline workflow to maintain scan-to-scan consistency with advanced visualization and analysis solutions.

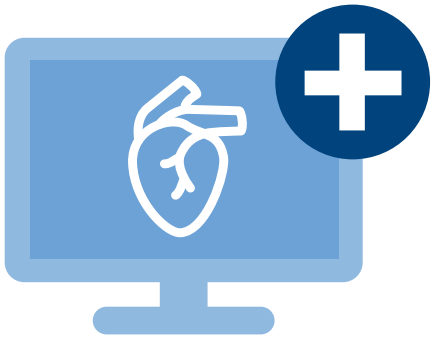
The forefront of performance

The confidence of IMR

Iterative Model Reconstruction (IMR) allows you to increase image quality and lower dose – simultaneously.* IMR lets you combine virtually noise-free images and industry-leading low-contrast resolution with significantly lower doses.

IMR provides significant improvements in low-contrast detectability, giving you confidence through enhanced visualization of fine detail and improved accuracy in detecting small, subtle structures. With innovations in hardware and the reconstruction algorithm, IMR enables fast reconstruction speeds – allowing model-based benefits to be achieved in even the most demanding applications.

IMR is the first knowledge-based solution that can be used in advanced gated acquisitions.



IMR results in

Up to 80% Dose reduction*

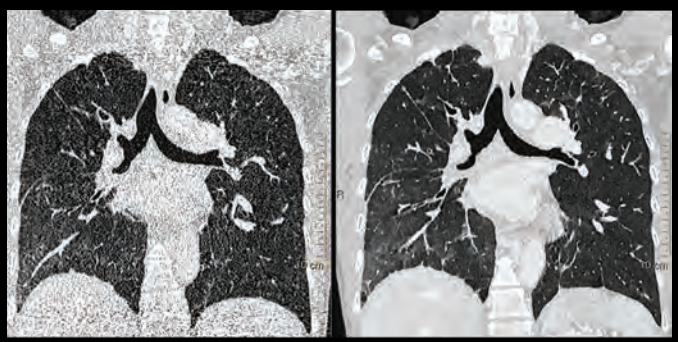
+

73–90% Noise reduction*

+

43–80% Improved low-contrast detectability*

IMR enables improved image quality with low dose, low noise and improved contrast resolution



Scan parameters: 100 kVp, 46 mAs, $CTDI_{vol}$ 2 mGy, DLP 78.5 mGy*cm

Image courtesy of Kantonsspital Winterthur, Zurich, Switzerland

**In clinical practice, the use of IMR 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. Lower image noise, improved spatial resolution, improved low-contrast detectability, and/or dose reduction, were tested using reference body protocols. All metrics were tested on phantoms. Dose reduction assessments were performed using 0.8 mm slices, and tested on the MITA CT IQ Phantom (CCT183, The Phantom Laboratory), using human observers. Data on file.

Quantify and diagnose quickly

Powered by iPatient

An advanced platform that puts you in control of your workflow, iPatient drives scan-to-scan consistency and allows you to plan the results, not the acquisition. Patient-specific methods facilitate optimal* management of image quality and radiation dose. iPatient helps to increase working speed and efficiency, as well as functionality at the point of care.

Get to results faster

The power of iPatient offers

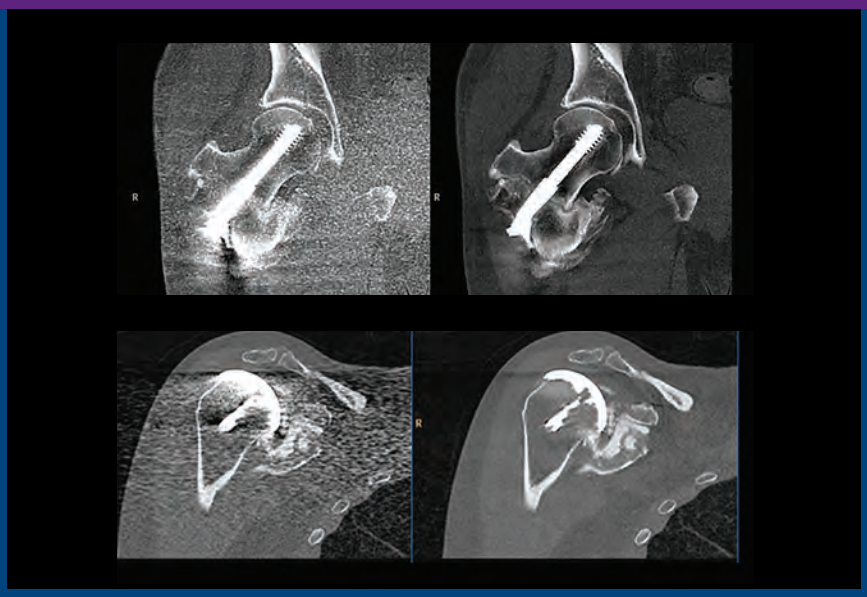
24% faster time-to-results

with 66% fewer clicks**

Leading technologies to improve image quality

The iDose^4 Premium Package

The iDose^4 Premium Package includes two leading technologies that can improve image quality: iDose^4 and metal artifact reduction for large orthopedic implants (O-MAR).



*"Optimal" refers to the use of strategies and techniques that facilitate the management and control of both image quality and dose.

** In a study done using multiphasic liver CT exams, the iPatient software platform reduced time-to-results by 24% and clicks per exam by 66%.

IntelliSpace Portal

Philips IntelliSpace Portal turns virtually any PC into an advanced multimodality imaging systems workspace, with rich clinical applications to help you quickly quantify and diagnose.

Work on advanced visualization in your preferred environment, using patient data without worrying about the modality of origin or moving to a specialized workstation.

Enhanced

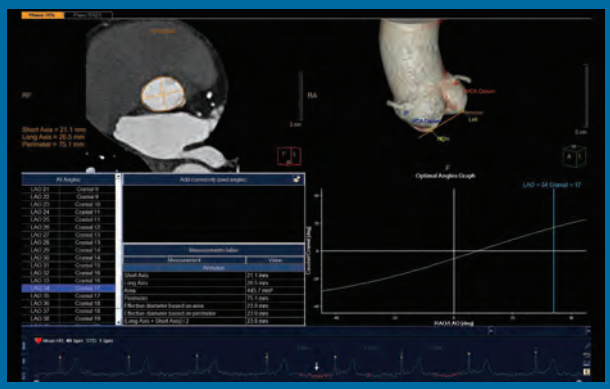
ZeroClick preprocessing

accelerates multimodality imaging analysis for increased diagnostic confidence.

IntelliSpace Portal can:

- Allow detailed assessment and measurement of relevant heart structure for TAVI-device sizing[2]
- Help modify the implantation strategy of aortic valves[3]

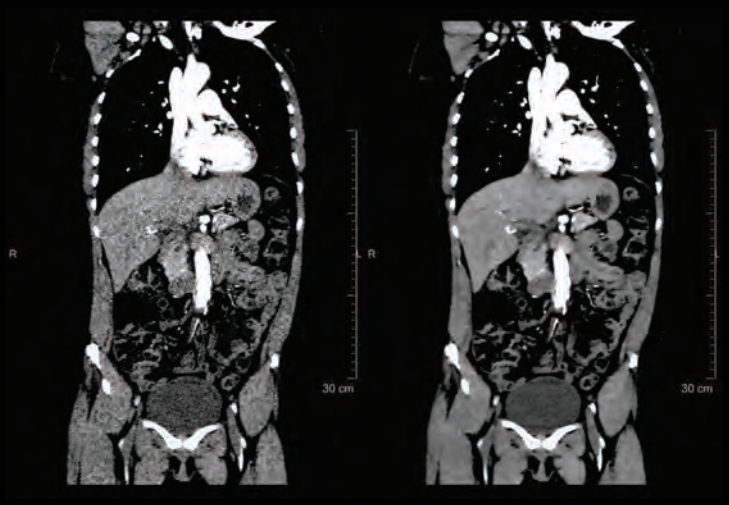
TAVI Planning



Comprehensive cardiac analysis

Clinical confidence

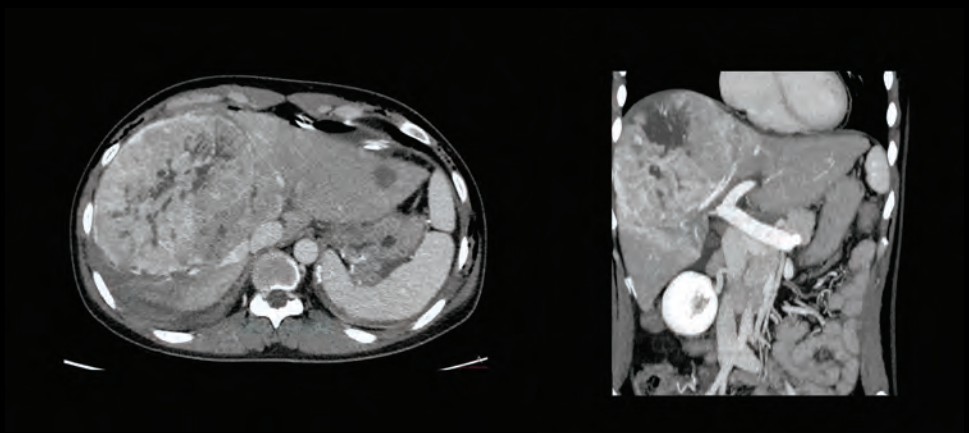
Chest, abdomen and pelvis scanned at 100 kVp using IMR for improved contrast resolution at low dose



Scan parameters: 100 kVp, 117 mAs, $CTDI_{vol}$: 4.8 mGy, DLP: 349.2 mGy*cm, effective dose: 5.2 mSv (k=0.015)[1]

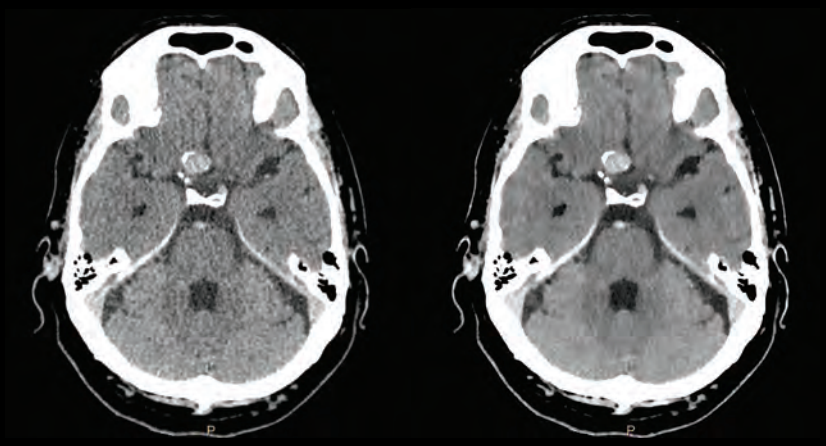
Images courtesy of Einstein Medical Center, Philadelphia, PA, USA

Abdomen – Liver lesion



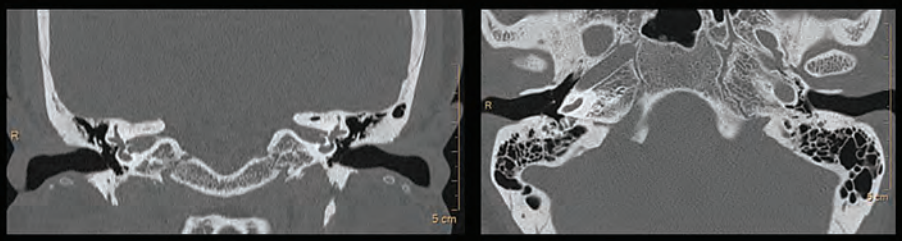
Scan parameters: 100 kVp, 250 mAs, $CTDI_{vol}$ 10.1 mGy, DlP 454.5 mGy*cm

Improved image quality with IMR



Scan parameters: 120 kVp, 371 mAs, $CTDI_{vol}$ 58 mGy, DLP 929 mGy*cm
Image courtesy of Waikato Hospital, Hamilton, New Zealand

Ultra-high resolution IAC



Scan parameters: 140 kVp, 350 mAs, $CTDI_{vol}$ 88.7 mGy, DLP 824.9 mGy*cm, 768x768 matrix

Make the most of your investment

Philips offers total solutions of innovative technologies, as well as service and support to help you deliver patient-focused care and reduce operational costs.

CT 6000 iCT puts you at the forefront of advanced imaging, while making it easy and cost-effective to keep your technology up to date.

Stay ready for the future

Technology Maximizer allows for technology migration to ensure you are using the most up-to-date hardware and software, while reducing the costs of managing obsolescence. Receive the latest available software and hardware technology releases for a fraction of the cost of purchasing them individually. It's a cost-effective way to manage ongoing technology upgrades through your operational budget.

Maximize uptime

With **24/7 proactive monitoring,** Philips helps you solve problems before they can impact your day-to-day operations. In the event an issue arises, **Remote services** can get you back up and running quickly, resolving 31% of issues without the need for on-site service.* If on-site engagement is necessary, Philips has a CT first-time-fix rate of 74%,* which means your site can be back up quickly without the need for multiple visits.

Focus on continuous improvement

This integrated portfolio of services and solutions enables continuous organizational performance improvements. Long-term, subscription-based offerings include defined services, easy-to-access data in one common platform, and personal expert support. **PerformanceBridge** helps you prioritize improvement on assets, uptime, utilization, people, compliance and practice.

Gain actionable insights

DoseWise Portal is a streamlined and vendor-agnostic web-based dose-monitoring solution. It collects, measures, analyzes and reports patient and staff radiation exposure, assisting you to take control of quality of care, efficiency, and patient and staff safety.

Enhanced cybersecurity and OS

Philips is committed to proactively addressing the security concerns of our customers and has improved the **cybersecurity** of its systems. CT 6000 iCT features Windows 10.

*Data collected across Philips portfolio scanners using remote services.

Seamless imaging for better healthcare

Meaningful innovation today lies in enabling seamless processes that deliver repeatable and reproducible outcomes with the power to touch more lives, at a faster rate, more cost-effectively. By focusing on what matters most to the imaging community – your clinical, operational, and financial challenges – we can streamline the path to a confident diagnosis and provide the greatest value to patients, providers and health systems. That's innovation at its best.

There's always a way to make life better.

About Philips imaging

Philips is a global provider of integrated imaging solutions for diagnosis and treatment. Our portfolio of imaging products – in MR, CT, molecular imaging, X-ray, fluoroscopy, IGT and ultrasound – is connected through the enterprise-wide IntelliSpace informatics platform for PACS, RIS, cardiology and advanced visualization. Focused on seamlessly connecting data, technology and people, Philips is pioneering design-driven solutions for patient comfort, smart systems to improve image acquisition, adaptive intelligence to boost diagnostic confidence, analytics and tools for operational improvement, and enterprise partnership models to address the challenges of value-based care. .

For more information, visit **philips.com/CT6000-iCT**

References

1. AAPM Technical Report 96.
2. Ben-Dor I, et al. Utility of Radiologic Review for Noncardiac Findings on Multislice Computed Tomography in Patients with Severe Aortic Stenosis Evaluated for Transcatheter Aortic Valve Implantation. The American Journal of Cardiology, 2010.
3. Korosoglou, G, et al. Objective Quantification of Aortic Valvular Structures by Cardiac Computed Tomography Angiography in Patients Considered for Transcatheter Aortic Valve Implantation. Catheterization and Cardiovascular Interventions. 2013;81:148-159.

The iCT is a computed tomography X-ray system intended to produce cross-sectional images of the body by computer reconstruction of X-ray transmission data taken at different angles and planes. This device may include signal analysis and display equipment, patient, and equipment supports, components and accessories.

The images and descriptions contained herein provide technical specifications and optional features which may not be included with the standard system configuration. Contact your local Philips Representative for complete specific system details.
Some or all of the products, features, and accessories shown or described herein may not be available in your market.
Please contact your local Philips Representative for availability.

The CT 6000 iCT Pro and CT 6000 iCT Premium are configurations of the Brilliance iCT.

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Please visit www.philips.com/CT6000-iCT

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