

A woman in blue scrubs is smiling and touching the forehead of a patient lying on a table. The patient is also wearing blue scrubs. The background is a bright, clinical setting.

**PHILIPS**

Computed  
Tomography

5000 Ingenuity

# Own the day

Computed Tomography 5000 Ingenuity



# Integrated imaging solutions

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.



# Own the day

**You can own the day or you can let it own you.** No matter what your daily healthcare environment brings, there's a way to manage it productively with the advanced tools of the Philips Computed Tomography (CT) 5000 Ingenuity.

## Every day efficient

Offers efficiency even in the most demanding environments, with advanced tools that streamline processes to enable consistency and reliability, day in and day out

## Every day depends on a confident diagnosis

Features a wide range of capabilities and scan procedures for confident diagnoses across diverse patient types

## Achieve operational goals every day

Allows you to reduce operational costs and increase throughput while making it easy and cost-effective to keep your technology up to date

# Proven worldwide and now newly enhanced

Efficiency is built into the CT 5000 Ingenuity from start to finish, and now new enhancements from scanning to reconstruction do even more to help you take control of the day.

In fact, at this moment, somewhere in the world, the CT 5000 Ingenuity is doing what it does best: bringing the proven consistency and performance for excellent patient care. Day after day. Patient after patient. Scan after scan. It's all in a day's work.



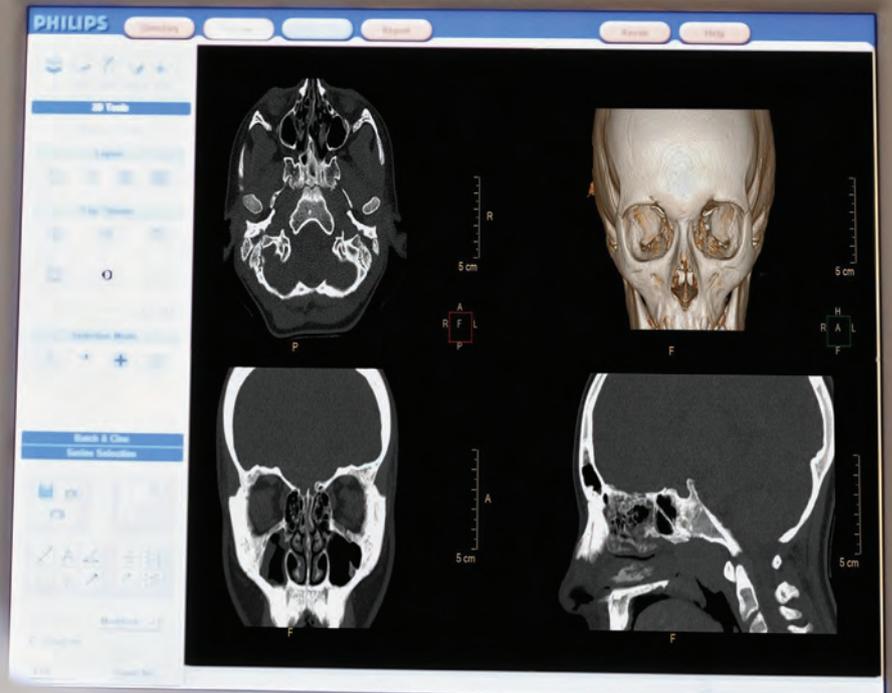
# Every day efficient

**No two days are the same.**

Every day is different,  
but every day requires results.

## Truly in control

The CT 5000 Ingenuity has hardware advances that mean enhanced performance and improved reconstruction times, so you can get more out of each day.



## 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.



## SyncRight-ready

In today's environment of high-throughput CT scanning, contrast injections are typically set manually. Because of this, many sites have adopted a single injection protocol. The Philips CT SyncRight

option enables easy and efficient communication between the CT system and the injector in order to facilitate delivering appropriate contrast dose and consistent image quality.

The CT 5000 Ingenuity offers efficiency even in the most demanding environments, with advanced tools that streamline processes to enable consistency and reliability, day in and day out.

### Get to results faster |

The power of iPatient offers

**24%** faster time-to-results, with



**66%** fewer clicks.\*\*

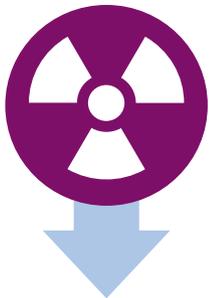
\* "Optimal" refers to the use of strategies and techniques that facilitate the management and control of both image quality and dose.

\*\* 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%.

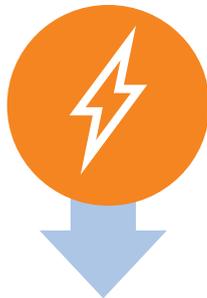
# Keep moving ahead

## NanoPanel Elite for the lows that matter

Philips is committed to solutions that provide low dose, low energy and low noise with outstanding results. The CT 5000 Ingenuity features the NanoPanel Elite detector, which reduces image noise at low energy and low dose through miniaturization and integration for a low-noise, high-fidelity signal.



**Low** dose



**Low** energy



**Low** noise



= **High-quality** results

## Outstanding reliability with the MRC tube

The Philips MRC tube is designed to be one of the most reliable in the industry, and features a unique spiral groove bearing and slotted anode. The spiral groove bearing allows for continuous tube cooling. Both the spiral groove bearing and slotted anode work together to contribute to increased tube life and reliability.

Built for high volume and consistency, there is no waiting for the tube to warm up before the scan\* and no waiting for it to cool down.\*\* Liquid coolant carries heat away from the MRC tube, so the CT 5000 Ingenuity is ready for the most demanding scans, one right after the other.



## Tested by time

More than 100,000 MRC tubes have been installed worldwide, each one rigorously tested using multipliers of stress to assure reliability and arcing stability.

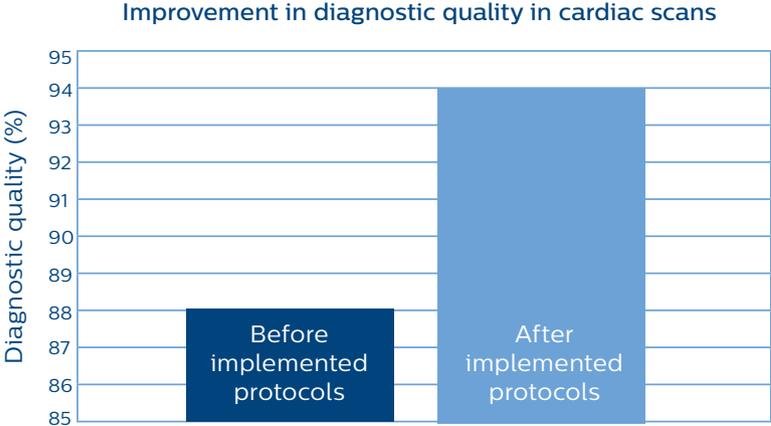
\* In urgent care situations, the tube is capable of scanning immediately.

It is recommended that the system in general be warmed up using normal procedures.

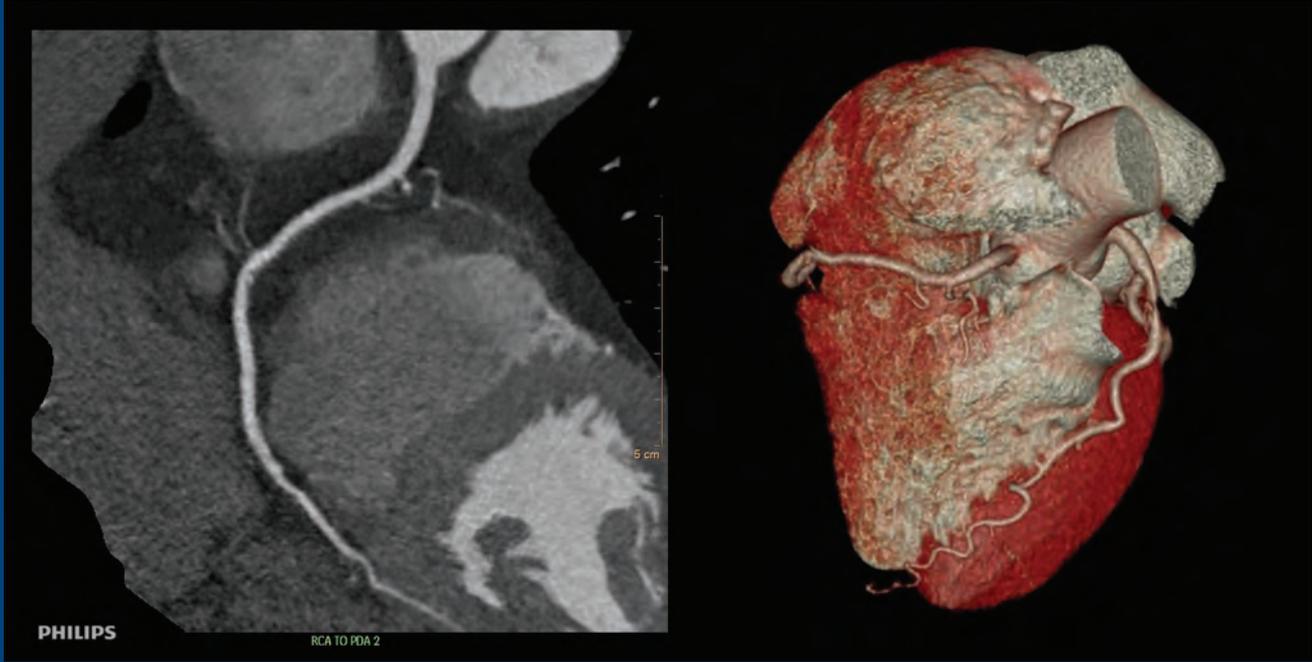
\*\* Assuming routine power usage with 10-minute scan windows.

# Expand cardiac offerings

The CT 5000 Ingenuity with iPatient demonstrated the enhanced image quality necessary for diagnostic confidence in coronary CT exams.<sup>1</sup>



## Enhanced image quality in coronary CT exams

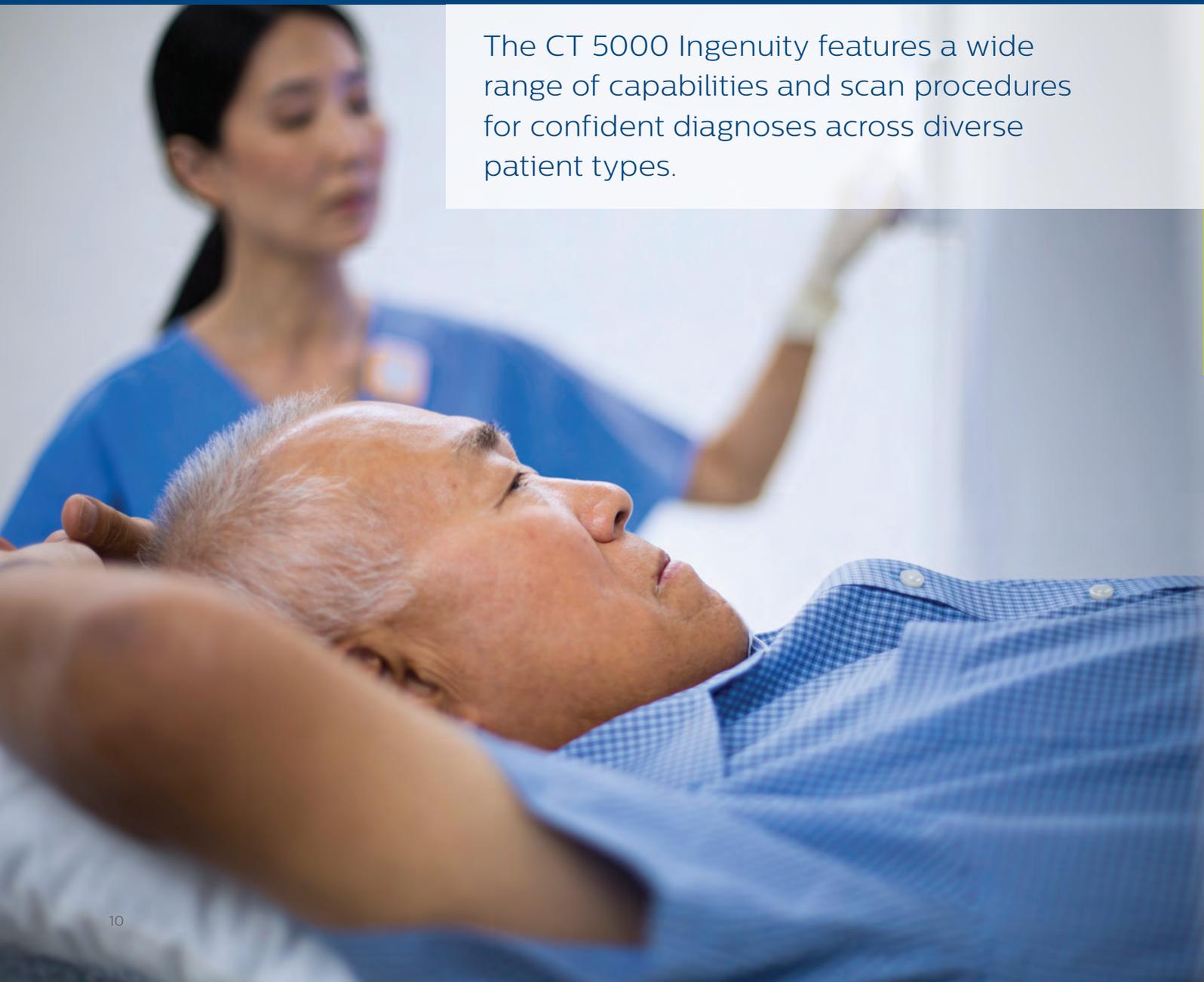


**Scan parameters:** 80 kVp, 200 mAs, CTDI<sub>vol</sub>: 5.4 mGy, DLP: 62.4 mGy\*cm, effective dose: 0.87 mSv (k=0.014)<sup>2</sup>  
Images courtesy of PRC Shanton House, Australia

# Every day depends on a confident diagnosis

## **No two patients are the same.**

Every day requires a range of scans from basic to complex.

A healthcare professional in blue scrubs is attending to a patient lying on a table. The patient is wearing a blue checkered shirt and has their arms raised. The professional is wearing white gloves and is looking down at the patient. The background is a plain, light-colored wall.

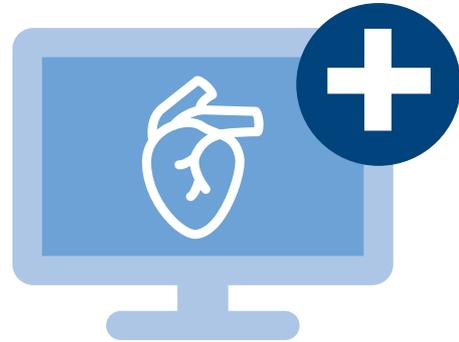
The CT 5000 Ingenuity features a wide range of capabilities and scan procedures for confident diagnoses across diverse patient types.

## 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



Dose reduction\*



Noise reduction\*

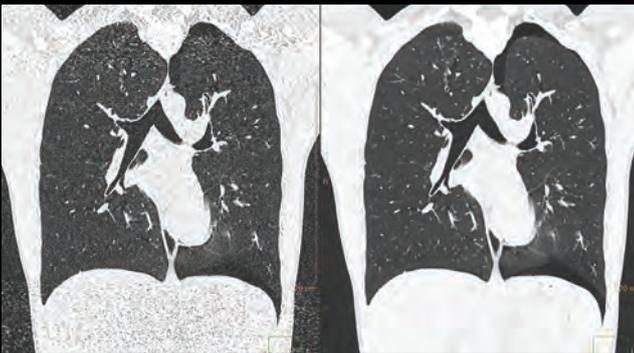


Improved low-contrast detectability\*

## Chest scan – pneumothorax

iDose<sup>4</sup>

IMR



**Scan parameters:** 120 kVp, 23 mAs, CTDI<sub>vol</sub>: 1.5 mGy, DLP: 65.9 mGy\*cm, 0.9 mSv (k=0.014)

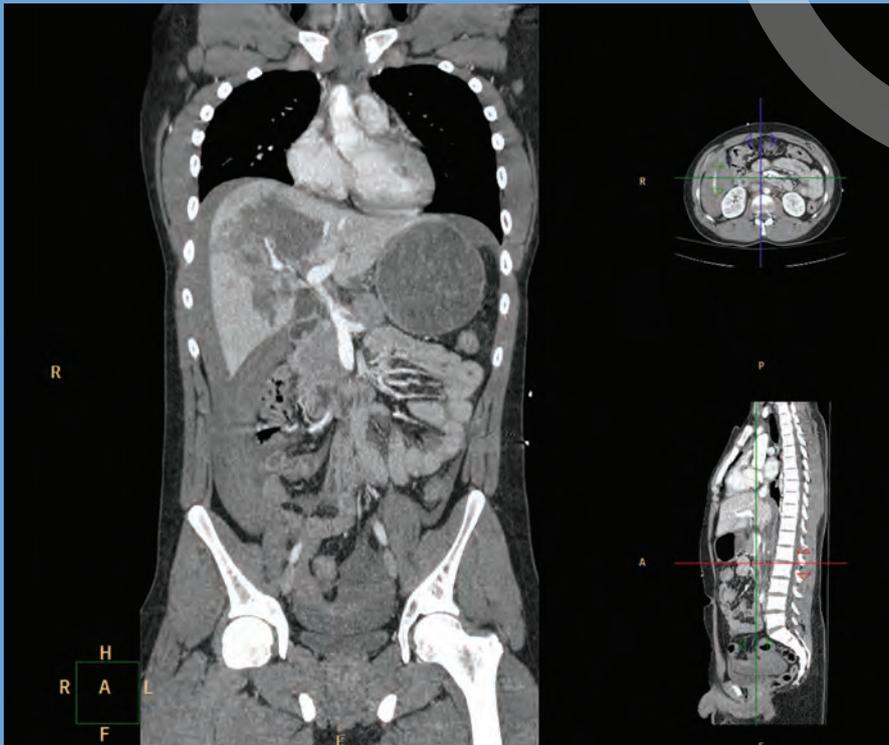
\*In clinical practice, the use of IMR may reduce CT patient dose depending on the clinical task, patient size, anatomical location, and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular 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.

# High image quality with reduced artifacts

## iDose<sup>4</sup> Premium Package

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

iDose<sup>4</sup> improves image quality\* through artifact prevention, noise reduction, and increased spatial resolution at low dose. O-MAR reduces artifacts caused by large orthopedic implants. Together they produce high image quality with reduced artifacts.



**Scan parameters:** 100 kVp, 39 mAs, 1.5 mGy, 35.6 mGy\*cm

Images courtesy of Monash Medical Center, Australia

\*Improved image quality is defined by improvements in spatial resolution and/or noise reduction as measured in phantom studies.



## 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 analyze.

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

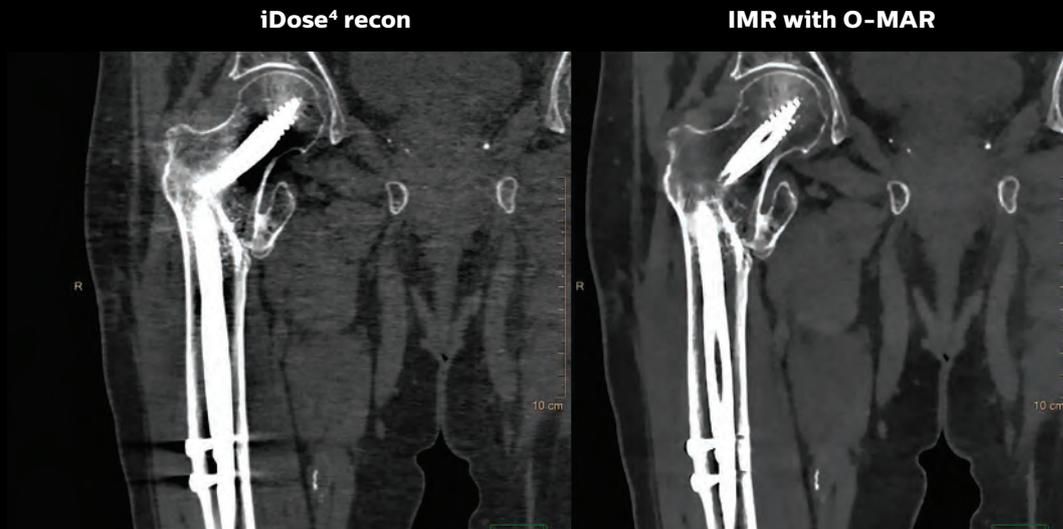


Enhanced  
**ZeroClick  
preprocessing**

accelerates multimodality  
imaging analysis for  
increased diagnostic  
confidence.

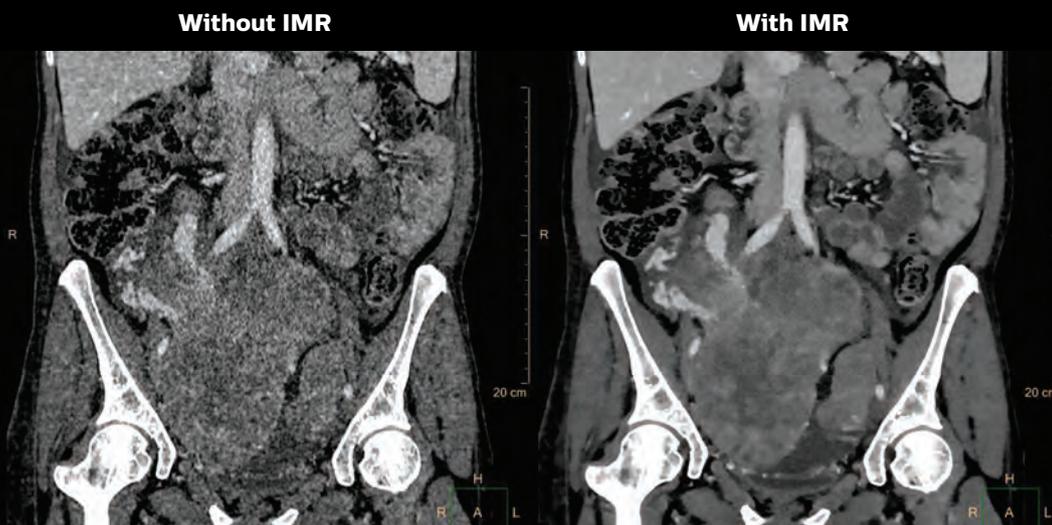
# Results that own the day

## Hip prosthesis



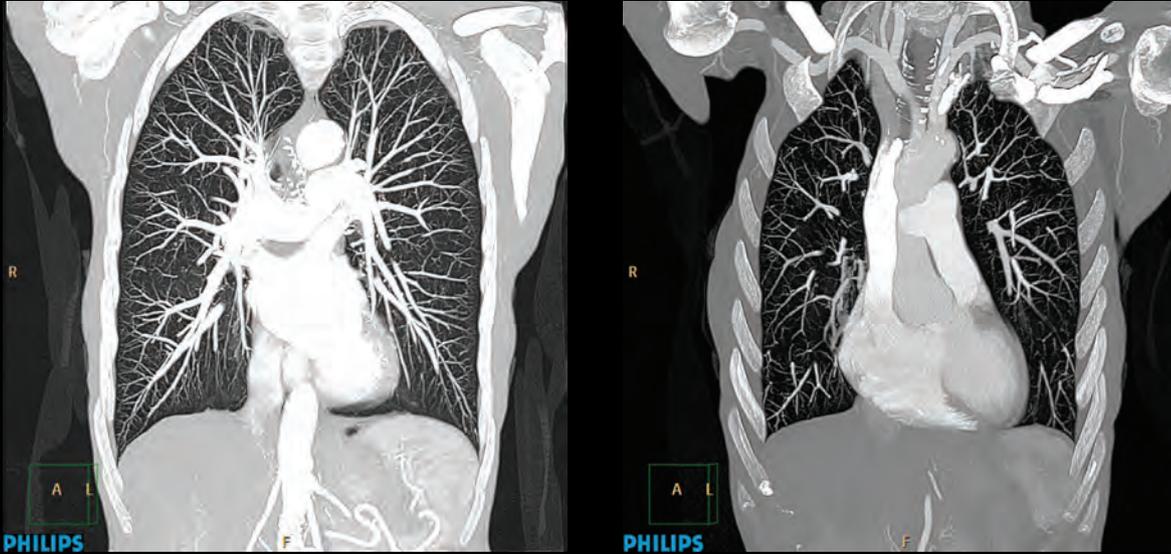
**Scan parameters:** 120 kVp, 100 mAs,  $CTDI_{vol}$ : 6.5 mGy, DLP: 260 mGy\*cm

## Abdominal CT



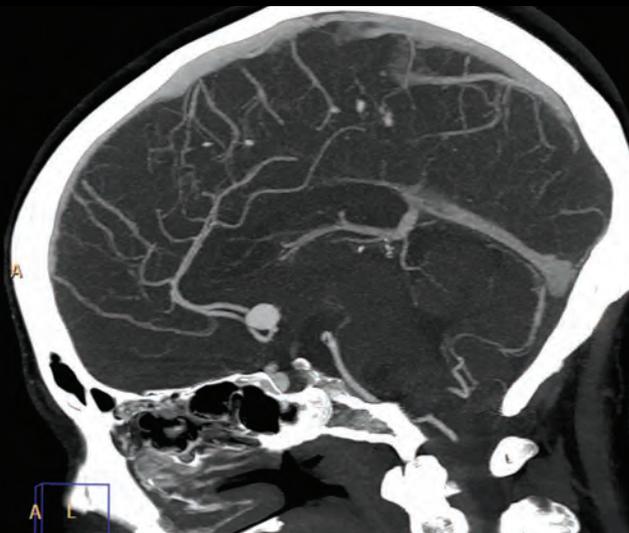
**Scan parameters:** 120 kVp, 132 mAs,  $CTDI_{vol}$ : 8.6 mGy, DLP: 690 mGy\*cm

## Lung screening at 0.9 mSv with HD imaging



**Scan parameters:** 80 kVp, 91 mAs, 1.7 mGy, 66.5 mGy\*cm

## Circle of Willis neuro CTA at 0.4 mSv



**Scan parameters:** 80 kVp, 80 mAs, iDose4 Level 4, 16.5 cm scan length

# Achieve operational goals every day

**The need to plan wisely is always the same.** You need to keep an eye on your operating budget while you're providing excellent patient care.

The CT 5000 Ingenuity allows you to reduce operational costs and increase throughput, 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.



### Advanced security features

Philips is committed to proactively addressing the security concerns of our customers and has improved the **cybersecurity** of systems such as the CT 5000 Ingenuity, which features Windows 10.

\*Data collected across Philips portfolio scanners using remote services.



# Seamless imaging for better healthcare

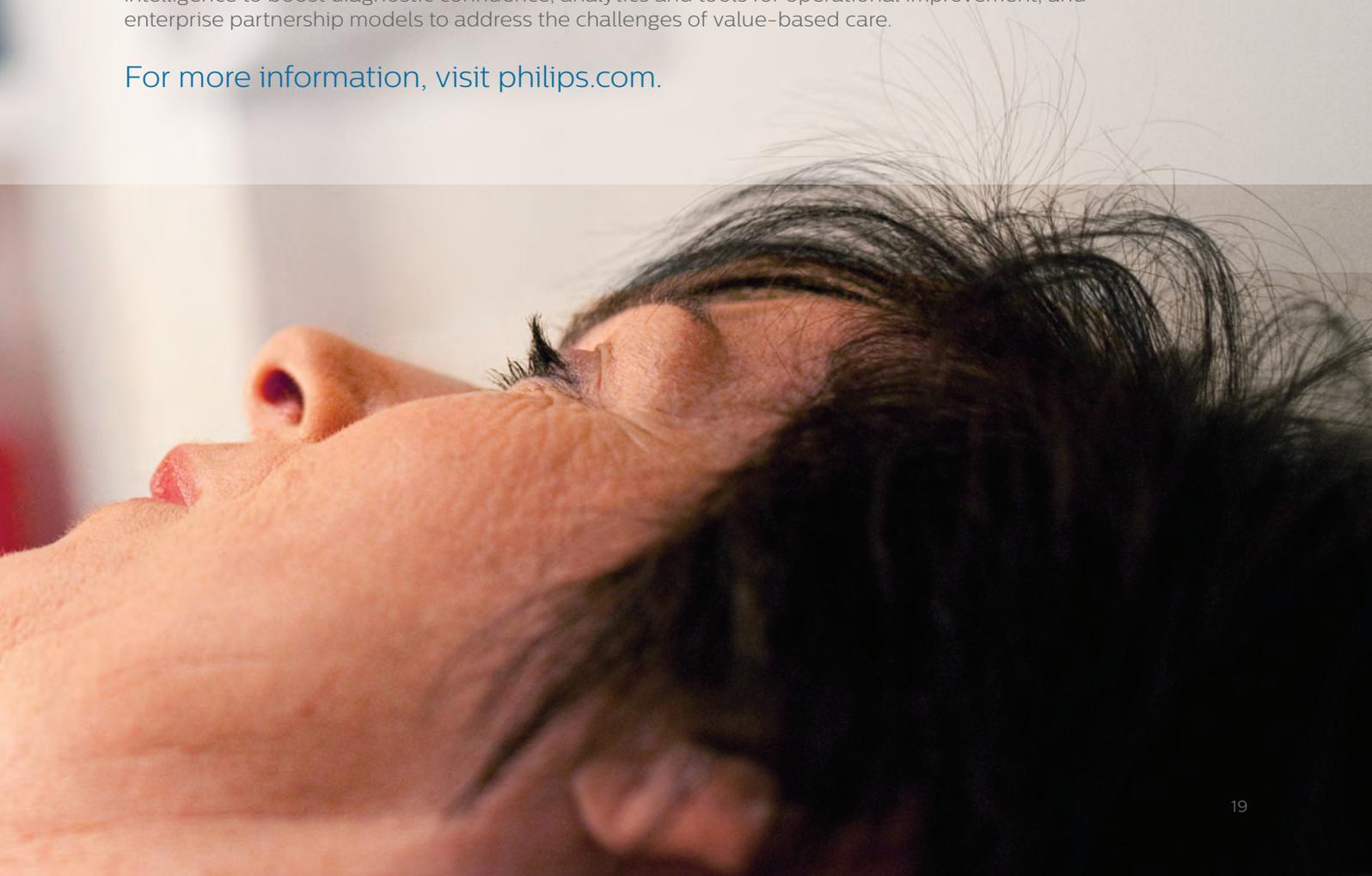
Meaningful innovation today lies in enabling seamless processes that deliver repeatable and reproducible outcomes with the power to touch more lives, at a faster rate, more cost-effectively. By focusing on what matters most to the imaging community – your clinical, operational and financial challenges – 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](http://philips.com).





## Reference

1. Philips (2017). Improved cardiac results with Ingenuity CT in a real-world setting.
2. AAPM Technical Report 96.

The Philips Computed Tomography 5000 Ingenuity systems are intended to produce images of the body by computer reconstruction of X-Ray transmission data taken at different angles and planes. These devices 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 Philips Computed Tomography 5000 Ingenuity is a configuration of the Ingenuity CT.

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[www.philips.com/CT5000-Ingenuity](http://www.philips.com/CT5000-Ingenuity)

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