

# Philips MR 5300

## Our vision

For more than 130 years, we have been creating meaningful innovations to improve people's lives and make the world more sustainable.

We are inspired to continually advance the state of precision diagnosis with customer- and patient-centric solutions that deliver clear care pathways and predicable outcomes.

In MR, our mission is to achieve a fast, fully automated, and personalized exam for every patient, while acting responsibly towards our planet and society.

With Al-driven smart connected imaging, optimized workflows, and integrated clinical solutions, we improve your MR department's productivity, enhance patient and staff experience, and deliver high quality diagnostic outcomes.

Welcome MR 5300, our breakthrough innovation in 1.5T imaging that transforms MR productivity. Quickly. Easily. Confidently.



# Transform MR productivity. Quickly. Easily. Confidently.

#### What are you looking for in an MR imaging system?

A way to ramp up productivity and meet the rising demand for imaging a growing population of clinically challenging patients? A system that makes it fast and easy to deliver exceptional quality images? And generate a steady stream of physician referrals? Ongoing support to help you control MR imaging costs, both now and as the future unfolds?

Philips MR 5300 delivers on all counts.

This innovative magnetic resonance imaging system is powered by Philips exclusive BlueSeal magnet for helium-free operations. And it incorporates a wealth of Al¹-driven technologies to simplify and automate the most complex clinical and operational tasks. So you can focus on what matters the most: your patients.

### Content

BlueSeal magnet	6
Automated patient centric workflow	1
Ultra-fast exams	2
High quality imaging	3
Performance for life	4



Philips transformed MR operations with the first helium-free operating 1.5T system and proprietary BlueSeal magnet technology. It not only eliminated the need for liquid helium, it changed the way clinicians think about MR imaging.

Now the MR 5300 takes helium-free MR operations to the next level – with breakthroughs designed to deliver automated patient-centric workflow, ultra-fast exams, high quality diagnostic imaging, and performance for life<sup>2</sup>.

Make the smart choice – Philips MR 5300.

### **Helium-free MR operations**

Philips BlueSeal magnet safeguards the small amount of liquid helium needed for cooling inside the bore. There's no helium loss, no refills, and no unexpected costs. Your MR department is free to fly.





# Automated patient centric workflow

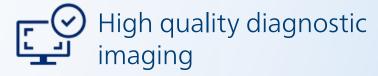
- <1 min patient set-up for routine exams</p>
- ▶ 30% faster change over time for your operator<sup>5</sup>
- ▶ 75% lighter Breeze coils³



## Ultra-fast exams

- → <5 min for routine exams</p>
- ▶ Up to 50% faster exams⁴
- ▶ Whole body exams in <20 min</p>





- Consistent quality and standardized results
- First Time Right Imaging with motion robust and free breathing techniques
- ▶ Excel with advanced clinical capabilities



## Performance for life

- Predictable TCO with coils for life\*
- Upgrades for life\*
- Zero helium free for life\*



# Automated patient centric workflow

SmartWorkflow dramatically reduces the number of steps needed to complete an MR exam – with guided patient set-up in under a minute, touchless patient sensing, and single-click initiation of routine exams. Combined with our lightest Breeze coils, this helps cut patient change-over time up to 30%<sup>5</sup> to keep your MR department on schedule. The result? Shorter exams and a better MR experience for your staff and patients.

## SmartWorkflow in the exam room

#### Work smart from the start.

With Philips MR 5300 Imaging System, you can work smart from the start to diagnose a wide range of conditions and illness and create highly personalized exams of virtually any patient, even your most challenging ones.

SmartWorkflow simplifies MR exams at every stage of the process – in the exam room and in the control room. It takes advantage of Al<sup>1</sup> technology to guide and coach operators where needed and automate where possible. Smart Workflow eliminates time-consuming manual tasks, so your current MR staff has the bandwidth to efficiently watch over a growing number of older, sicker patients – and deliver the consistent quality care they deserve.

#### Focus on patients, not technology.

Imagine setting up your next patient in one minute and initiating an MR exam with a single touch – directly at the MR scanner. SmartWorkflow with Breeze coils makes it possible. With the MR 5300, your staff spends less time setting up patients and more time comforting them. Even inexperienced operators can proceed with confidence, giving patients peace of mind that they're in good hands – and leading to consistent quality MR results.

Automated patent-centric workflow can enhance productivity, increase throughput, and improve the MR experience – for patients and staff alike.

### SmartWorkflow in the exam room



A virtual coach guiding exam set-up; allowing your staff to focus on the patient



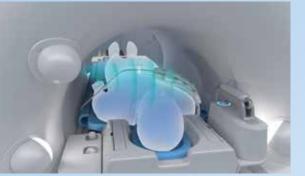
Fast and easy coil positioning: Our lightest Breeze coils and connectors help cut patient change-over time up to 30%<sup>5</sup>



**Efficient cable management:** U-shaped groves alongside the ComfortPlus mattress make cable management no longer a challenge, and separate coil cables from the patient's skin



**Auto patient centering:** Put your patients at ease, while manual steps in the workflow are automated



Touchless respiratory-triggering: Remove the hassle of respiratory belt placement while providing superior image quality



In-room exam start: Increase productivity and free up time for other tasks

# Philips MR 5300

# Reduce change-over time by up to 30% with Breeze coils

Lighten your staff's workload, ramp up productivity, and deliver a more comfortable patient experience with superlight Breeze coils and connectors. They weigh up to 75% less than conventional anterior coils and can be used alone or in combination to scan a wide range of anatomies – from adult to pediatric.

Combined with SmartWorkflow, Breeze coils make it possible to quickly connect and prepare patients for imaging – helping to shorten set-up time for routine exams up to 30%<sup>5</sup>. At the same time, Breeze coils deliver exceptional quality MR images and high patient satisfaction.

"As a user, I am very pleased with the light weight of the Breeze coils and the connectors."

**Dayan Jackson Dudleythurai**, MR Radiographer at Aleris-Hamlet Hospital, Aarhus, Denmark.



# ComfortPlus Mattress. No clutter, no skin contact.

Managing coil cables is no longer a challenge thanks to the MR 5300's ComfortPlus Mattress Partner. U-shaped groves run along the side, creating a continuous channel that separates coil cables from the patient's skin. Breeze coils work together with the ComfortPlus Mattress Partner to support a better patient experience<sup>9</sup>.



# Philips MR 5300

## SmartWorkflow in the control room

#### Reduce workload, increase patient throughput.

SmartWorkflow does as much to streamline MR exams and boost productivity in the control room as it does in the exam room. It automates scanning and processing, improves staff experience, and drives efficiency, giving operators time to check images or get ready for the next exam. Automated patient coaching results in more consistent image quality, accurate diagnoses, and a better patient experience. With SmartWorkflow in the control room, you can confidently offer imaging to patients with MR conditional implants. While guided, automated workflow shortens the path to patient-centered productivity.



Automated planning and scanning
Standardize results with reduced variability and increased efficiency



Automated post-processing
Remove the burden of repetitive post-processing to support increased throughput



Automated patient coaching
Reduce your workload while patients are put at ease and guided through the exam



Confidence for MR Conditional implants
Increase efficiency while providing access to patients with MR
Conditional implants

# MR 5300 delivers an experience unlike any other

From the moment a patient enters the scanner, through to the completion of the exam, In-bore Connect helps put them at ease – with reassuring voice guidance, immersive visuals, dynamic lighting, soothing sounds, clear instructions on breath hold, and active feedback on scan progress.

When combined with MR 5300's SmartWorkflow, superlight Breeze coils, Compressed SENSE imaging, ComfortPlus Mattress, and ComforTone for noise reduction, in-bore Connect helps to deliver MR patient experience unlike any other<sup>7</sup>.

"Our patients are very amazed at the pleasant scanning experience MR 5300 can offer. If our patients are happy, we are happy as well."

**Dayan Jackson Dudleythurai**, MR Radiographer at Aleris-Hamlet Hospital, Aarhus, Denmark.

### The facts speak for themselves:

·80% fewer patients needing sedation thanks to greater comfort, noise reduction, and faster exams<sup>8</sup>

• 96% of all patients indicated the ComfortPlus Mattress was comfortable<sup>9</sup>

• 90% of those in severe discomfort found it easy to lie still on ComfortPlus Mattress<sup>9</sup>

•80% noise reduction with ComforTone – similar image quality and contrast in the same time slot for all routine scans (brain, spine, MSK)<sup>10</sup>



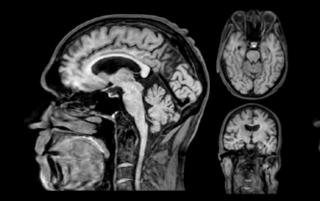
# Turn images into answers up to – 50% faster

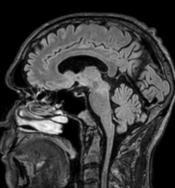
The sooner you have quality MR images in hand to make informed clinical diagnoses, the better – for you, your staff, your patients, and referring physicians who count on your images and insights to decide on the right treatment and best course of care.

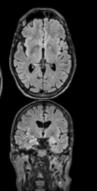
The Philips MR 5300 puts time on your side with Compressed SENSE. It accelerates your existing MR scans by up to 50% with virtually equal image quality, enabling you to make the best use of your resources. Your MR team has more time to focus on patients, while potentially opening up slots to perform additional MR exams.

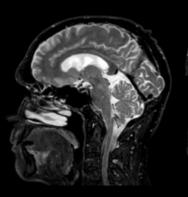
Compressed SENSE also enables you to create exceptional MR images with 60% higher spatial resolution for confident diagnosis. It can be used for anatomical contrasts in both 2D and 3D scanning across a broad and deep population of routine patients, as well as those with challenging anatomies.

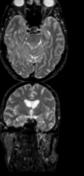
# Up to 50% faster 2D and 3D scans with virtually equal image quality<sup>6</sup>











Conventional: 15.14 min

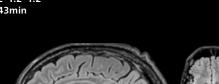
Compressed SENSE: 10.36 min

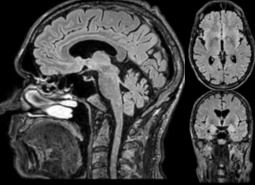
cs5 T1 BrainView 1.0\*1.0\*1.0

3.45min

T1 BrainView 1.0\*1.0\*1.0 5.51min

Flair BrainView 1.2\*1.2\*1.2 4.43min

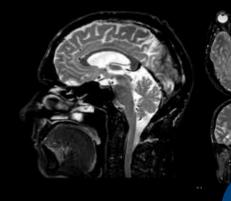




cs6.5 Flair BrainView 1.2\*1.2\*1.2 3.07min

T2 BrainView 1.1\*1.1\*1.1 4.40m

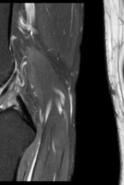
3.44min



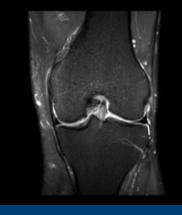
cs6 T2 BrainView 1.1\*1.1\*1.1

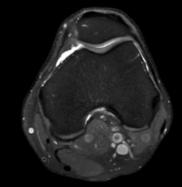
33%







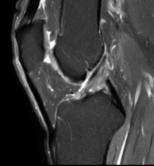




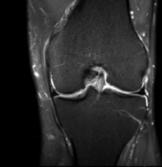
18 min

PD Sag 0.4\*0.6\*3 3.50min PD FS Sag 0.5\*0.7\*3 4.39min T1 Cor 0.4\*0.6\*3 2.58min PD FS Cor 0.5\*0.7\*3 3.07min PD FS Tra 0.5\*0.7\*3 3.34min









11 min

cs2.4 PD Sag 0.4\*0.6\*3 2.30min cs2.2 PD FS Sag 0.5\*0.7\*3 3.00min cs1.8 T1 Cor 0.4\*0.6\*3 1.40min cs1.9 PD FS Cor 0.5\*0.7\*3 1.58min Cs2.0 PD FS Tra 0.5\*0.7\*3 2.01min

39%

hilips MR 530

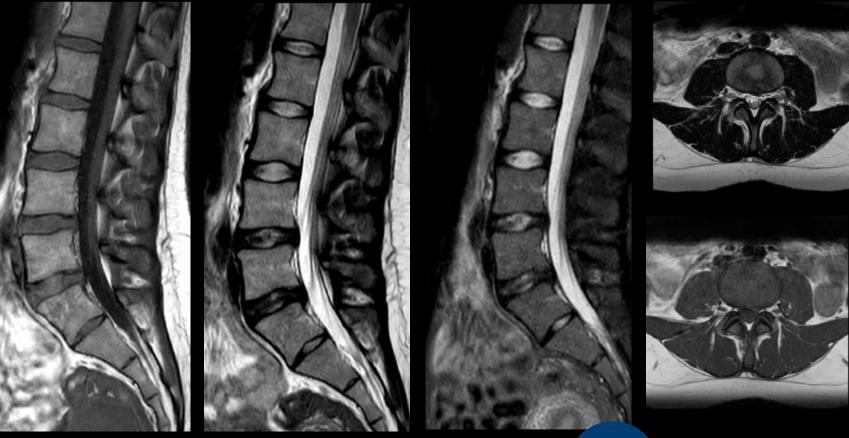
# Up to 50% faster 2D and 3D scans with virtually equal image quality<sup>6</sup>



#### Conventional: 16.30 min

T2 Sag	0.9*1.0*4	3.10
T1 Sag	0.9*1.0*4	3.10
Stir Sag	1.0*1.2*4	3.38
T2 Tra	0.7*0.8*4	3.28
T1 Tra	0.6*0.8*4	3 10

cs T2 Sag 0.9\*1.0\*4 2.04r cs T1 Sag 0.9\*1.0\*4 2.05r cs Stir Sag 1.0\*1.2\*4 2.30r cs T2 Tra 0.7\*0.8\*4 2.24r

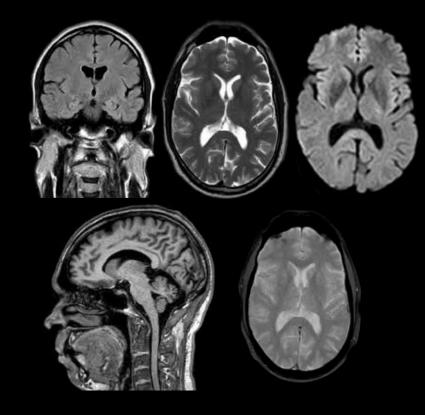


39%

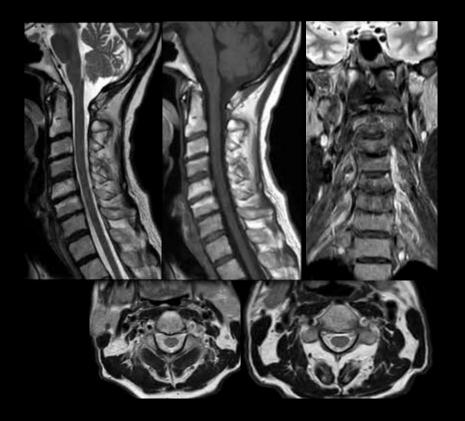
Philips MR 530

26

### 5 min routine exam







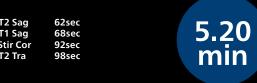
2sec 1sec 3sec 18sec 4.44 min

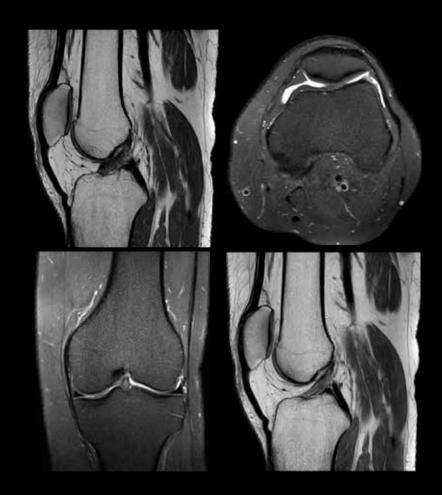
# The 5-minute, push-button exam

Take advantage of the MR 5300's advanced Al¹ algorithms to automate complex geometry planning and execution of complete MR exams to produce consistent, reliable results – in just 5 minutes. Even when relying on less-experienced staff. The MR 5300 accelerates exams by up to 50% and automatically plans the geometry of the scans in the ExamCard. You can count on fast, reproducible planning results in more than 80% of procedures – to support brain, spine, knee, shoulder and breast exams. Accelerate workflow and enhance consistency with 5-minute MR exams.

### 5 min routine exam







4.53 min

cs2.5 T1 Sag 67sec cs3 PD FS Tra 90sec cs3 PD FS Cor 84sec cs2.5 PD Sag 52sec

### 5 min routine exam





4.26 min

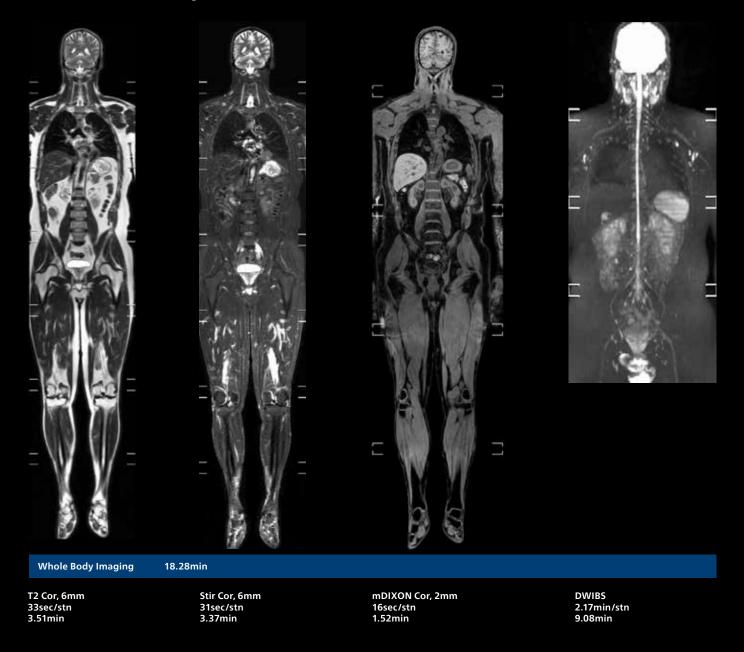


cs2 PD FS Cor cs2.2 T1 Cor cs1.8 T2 Tra cs 2.8 T2 Dixon (W+IP) Sag

sec sec sec

3.52 min

### 20 mins whole body



# Capture a body of knowledge – in 20 minutes

When it comes to detecting, diagnosing, planning, and monitoring cancer therapy, whole-body MRI has become an increasingly valuable option for metastases imaging. That's because cancer specialists need fast, accurate images and information to make critical decisions about the best course of care for patients looking to them for answers.

The MR 5300 provides high-quality whole-body ExamCard protocols in under 20 minutes, drawing on Philips Compressed SENSE, mDIXON XD, and DWIBS whole-body diffusion techniques. While workflow simplification tools like SmartShim automate image-based shimming for easy multi-station pasting like MobiView and MobiFlex to further shorten MR exams, lightweight Breeze coils help to make set-up fast and easy.

The MR 5300's large field-of-view and highly linear gradients support fast, high-quality coronal whole body DWIBS for cancer diagnosis, helping to drive oncologist referrals.

Philips MR 53



# The best outcomes depend on the best images. Philips MR 5300 delivers

When it comes to creating clinical images that impact your patients' lives, you need to be sure – about your MR system and the quality of the images it enables you to generate.

The MR 5300 leverages fast scanning methods to deliver exceptional quality fat-free and motion-free images you can rely on to deliver the best care possible.

It enables you to handle high-resolution MSK scans, complex spine examinations, MR conditional implant imaging, and oncology imaging with enduring consistency. And it positions your

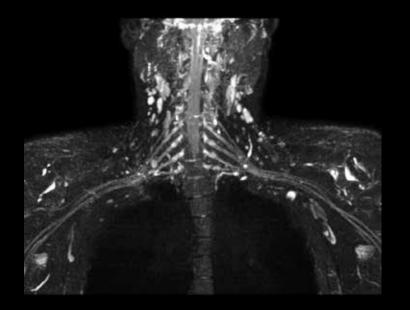
MR department to become the preferred partner within your referral network.

#### Great IQ by design.

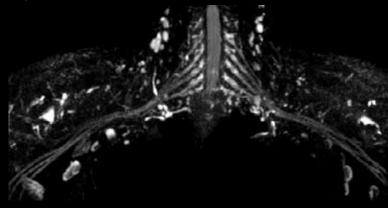
Philips MR 5300 includes a wealth of technology innovations designed to generate the detailed, high quality images essential to diagnosing and treating challenging patients with confidence.

It starts with superlight Breeze coils – that can be used alone or in combination, bringing extraordinary versatility to creating quality MR images of virtually any anatomy. The MR 5300's large 55cm field-of-view allows for extended anatomical coverage. And premium signal-to-noise ratio with dStream – up to 40% with neurological exams – provides outstanding image resolution. High-quality whole-body exams can be completed in under 20 minutes.

## High quality diagnostic imaging by design



3D NerveView 4.46min



3D NerveView Oblique MPR



cs1.6 T1 Sag 3.25min (1.30min*)* 



cs1.6 T2 Sag 3.10min (1.30min/Str

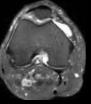
cs1.6 Stir Sag 3min (1.30min/Stn

## Fast exams and consistent high-quality imaging with Breeze coils

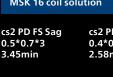




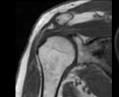


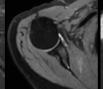


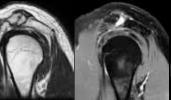


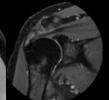


T1 Cor cs2 PD FS Tra .5\*3 0.4\*0.6\*3 nin 3.12min



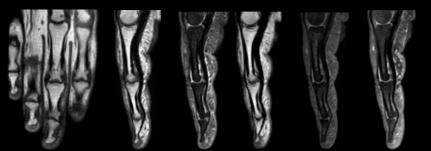






3 T1 Cor cs1.5 PD FS Tra cs2 T2 Sag cs1.5 F 0.6\*3 0.5\*0.7\*3 0.5\*0.7\*3 0.5\*0. min 2.30min 2.18min 2.55m

cs1.5 PD FS Sag PD FS MV Co 0.5\*0.7\*3 0.6\*0.6\*3 2.55min 2.55min



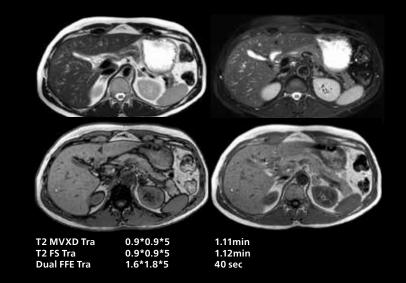
MSK S

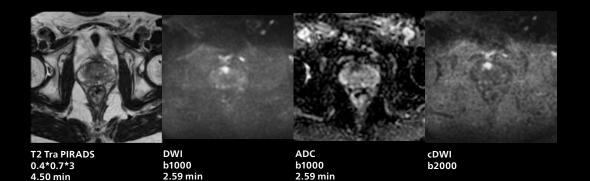
T1 Cor 0.3\*0.4\*1.5 3.04min

T1 Sag 0.3\*0.4\*1.5 2.46min 0IXON Sag mFFE 5\*2 0.3\*0 nin 3.16m PD FS Sag 0.3\*0.4\*1.5 2.50min

### Fast exams and consistent high-quality imaging with Breeze coils









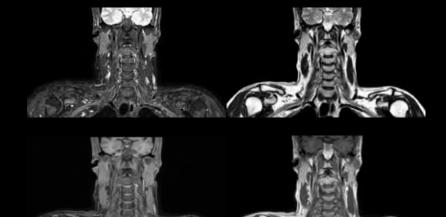
## Quality imaging is now a Breeze

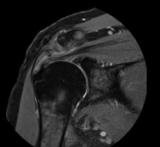
Innovative Breeze coils do more than accelerate set-up time and improve the MR experience, they enhance your ability to create exceptional quality diagnostic images. Breeze coils powered with SmartSelect technology allows automatic detection of the right coil combinations and selects the right coil elements to provide highest SNR for the region of interest.

Breakthrough Breeze coils are more than 75% lighter than conventional coils, yet rigid enough to hold their shape during patient breathing or movement to maintain sharpness and clarity. Operators have the flexibility to position the coil in landscape or portrait mode to precisely match the anatomy and accurately capture the organ of interest. When combined with image acceleration technologies like Compressed SENSE, they deliver consistent quality images across a broad range of challenging anatomies and patients.

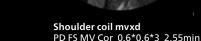
Philing MP 5200

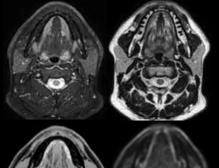
### Fat-free and motion-free imaging with mDIXON XD and MultiVane XD

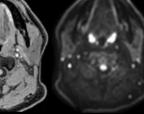




PD FS MV Tra 0.7 x 0.7 x 3 2.40min



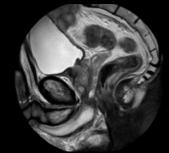








T2 Dixon TSE, 3mm, 3,39min



T2 MVXD Sag

# Stay on schedule with fast, high quality images

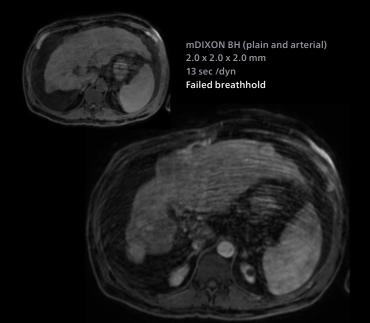
The growing demand for imaging challenging patients has led to a second challenge – staying on schedule. Even one repeat scan can increase patient wait time and staff overtime.

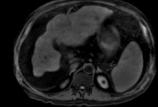
Philips MR 5300's fast, efficient scanning methods accelerate imaging of difficult anatomies and challenging patients, providing the consistent quality you need to streamline imaging and satisfy referring physicians.

Bring a new dimension to fat suppression with uniform, consistent fat-free imaging, even over large field-of-views and in complex anatomies like the head/neck, spine, and MSK. Provide up to four image types in one single scan, with and without fat suppression contrasts – in routine scan times and at the highest resolution, simultaneously.

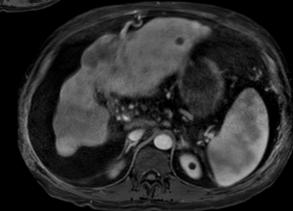
mDIXON XD TSE enables you to enhance your imaging strategies by simplifying routine TSE procedures. Deliver high resolution diagnostic images even in the case of severe patient motion by providing motion correction to a full range of anatomies, in short scan times. And MultiVane XD works in multiple orientations and for various contrasts (T1w, T2w, FLAIR), helping you to increase your diagnostic confidence.

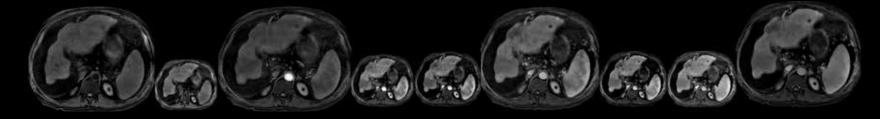
## Your patients can breathe easier and so can you with 4D FreeBreathing





4D FreeBreathing (plain and arterial) 1.7 x 1.7 x 1.8 mm Free breathing





Dyn 1

Dyn 5 (arterial)

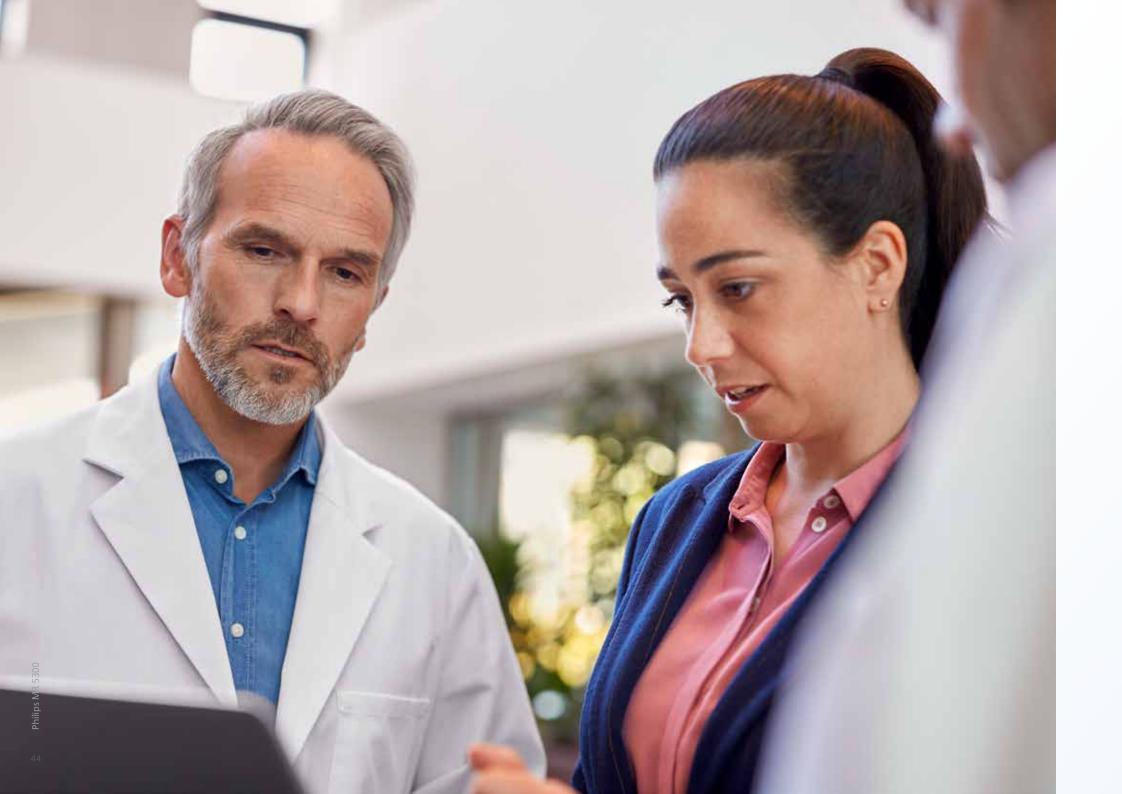
Dyn 9 (portal)

4D FreeBreathing, 1.7 x 1.7 x 1.8 mm, 3 sec /dynamic Courtesy: Kantonsspital Winterthur, Switzerland

# Your patients can breathe easier and so can you – with 4D FreeBreathing

Improve the MR experience for patients who have difficulty holding their breath –or find it hard to follow breathing instructions – with 4D FreeBreathing. It gives you the freedom to produce excellent image quality from multi-phase liver studies. Achieve a temporal resolution down to 3 seconds per phase, performed without breath holds.

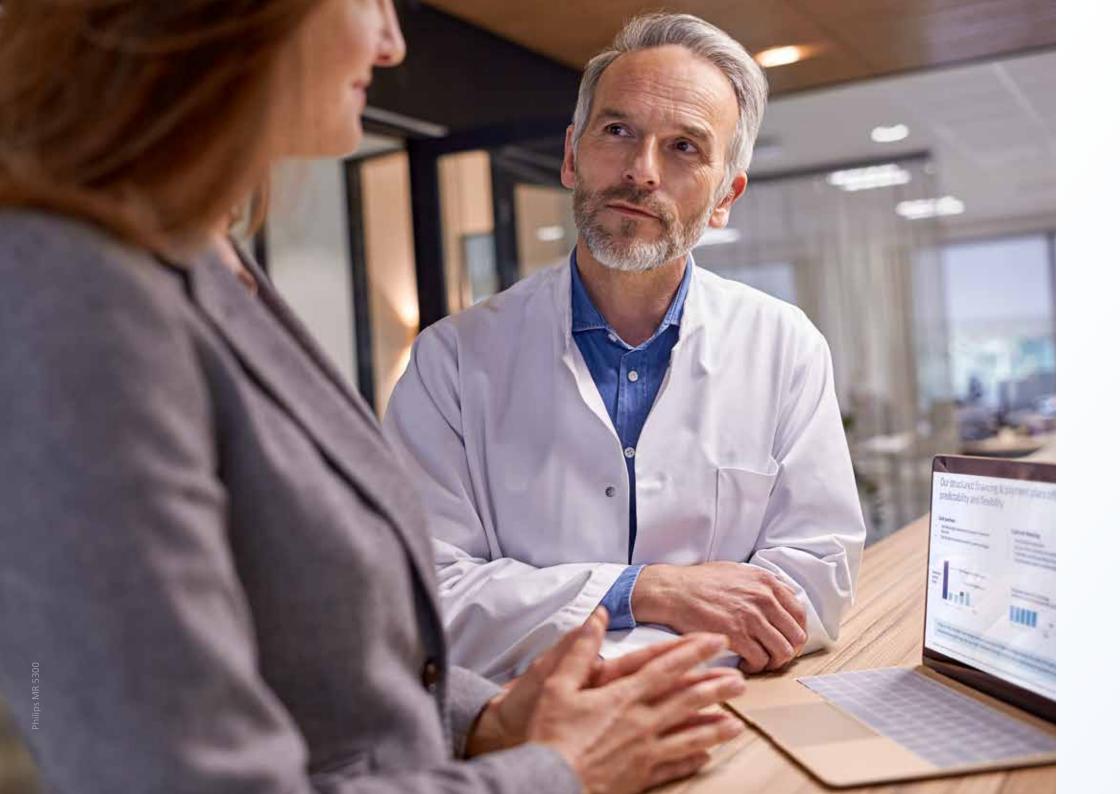
4D FreeBreathing and VitalEye, an external sensor for touchless respiratory triggering, work together to deliver exceptionally reliable results and improved imaging confidence.



# Count on Philips for a lifetime of support

How can you make the most of your MR 5300 to maximize uptime, lower the cost of ownership, and increase your return on investment? With Performance for Life, a comprehensive, all-in-one package of proactive maintenance services, system upgrades, coil replacement, and helium-free operations designed to help you improve uptime and lower the total cost of ownership.

Performance for Life offers the convenience and simplicity of one ongoing support solution at one annual price – for the life of your contract.



# Protect your investment with Performance for Life

#### Coils for Life.

Philips most reliable RF coils are covered by Performance for Life, so you're assured of timely replacement in the unlikely event of a disruption.

Keep your MR 5300 positioning aids fresh with no-cost replacement every few years. Take control of your MR costs and enjoy added peace of mind with Coils for Life.

#### Advances for Life

You can be sure that your operators and technicians are always working with most advanced MR 5300 software and computer hardware thanks to Technology Maximizer. This structured program provides ongoing software upgrades and the latest hardware innovations to keep your MR 5300 state-of-the-art. No need to buy individual upgrades. No waiting on budget approval. And no hassle.

#### Helium-free operations for Life.

Philips BlueSeal magnet is fully sealed for uninterrupted, helium-free MR operations. There's no need for refills, no unexpected costs, and no delays waiting for a scarce helium supply. It's the first magnet driven by Al¹ to support EasySwitch, enabling your BlueSeal magnet to be proactively discharged to prepare for natural disasters or other emergencies.

#### Connected for Life.

What if you could resolve service problems before they impact your day-to-day MR operations? And without the need for an on-site visit by service engineers? With Al-driven services empowered by e-Alerts, Philips monitors more than 500 performance parameters for fast, accurate case diagnosis and fault resolution. Often Philips remote service identifies potential vulnerabilities before they interrupt operations, enabling you to keep your MR 5300 running at full speed and your patients on schedule. Philips Connected for Life is fuelling the shift from reactive to proactive to predictive maintenance.

#### Expand your staff's knowledge on your terms.

The more your operators, technicians and clinicians know about the benefits of MR imaging and the speed, ease, and intelligence of the MR 5300, the more you can do to streamline workflow, deliver quality patient care, and achieve clinical excellence.

Philips MR Healthcare Education can help unlock the full potential of your staff, technology, and organization through innovative and meaningful healthcare education. Courses can be delivered on-site or via e-Learning at your caregivers' convenience. There's no better way to meet everyday challenges like filling staff shortages and cross training department personnel.

#### Make helium-free MR operations accessible and affordable.

You want to deliver best-in-class healthcare, but financial security and protecting your assets over time are also critically important to your future.

Philips works with you to structure tailored financial solutions that are in line with your cash flow needs, budgets, and business strategy – to help you get the most from your MR 5300 while managing your financial challenges.

#### The Philips Capital advantage.

By financing your MR 5300 through Philips Capital, you exchange variability and unpredictability for visibility and certainty.

With Philips Capital EasyStart Deferral Payment Program<sup>11</sup>, you can deliver exceptional quality images now, and start your repayments later. We help you avoid the burden and risk of upfront expenditures while you benefit from transparent, predictable cost structures. You can manage and plan budgets more efficiently, freeing up capital that would otherwise be tied up in fixed assets.

Find out how Philips Capital's tailored financing programs can help you manage your total cost of ownership—for life.



#### **Defer your payments**

MR delivery and installation



**Care delivery and** generation of patient revenues starts [grace period]

**Start monthly** payments up to 6 months later\*



#### References:

- 1. According to the definition of AI from the EU High-Level Expert Group.
- Performance for Life is an optional service entitlement exclusive for MR 5300.
   10 years is the minimum life we offer on a system. Parts like consumables and coils are guaranteed in that lifetime and so are the services we are offering on the contract.
- 3. Compared to Philip's conventional anterior coils.
- 4. Compared to Philips scans without Compressed SENSE.
- 5. Compared with CoT between routine Brain, Spine, Body, Cardiac, MSK exams in Ingenia 1.5T / Ingenia Ambition 1.5T with dS Anterior and dedicated MSK-coils.
- 6. Compared to Philips scans without Compressed SENSE.
- Compared to scanning without ComfortPlus mattress, ComforTone, and Compressed SENSE.
- 8. Case study in Lubeck, Germany (n=583). The tranquillizer referred to is a valium-based derivative called "Diazepam". Results represent a case study performed at a single location. Results from case studies are not predictive of results in other cases. Results in other cases may vary.
- 9. Compared to the standard mattress.
- 10. Compared to scanning without ComforTone.
- For general information purposes only. Subject to customization, equipment availability, contract, and financial approval. Please contact your local Philips representative to learn more.

