



MAGNETOM Trio™

Taking 3T clinical power to the extreme.

SIEMENS
medical



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XC

A person's legs are shown from the mid-thigh down to the feet, wearing white athletic socks. They are standing on a white treadmill belt. The background is a plain, light gray. The text is overlaid on the right side of the image.

Extreme speed.

Extreme detail.

Extreme throughput.

Extreme flexibility.

Extreme reliability.

Extreme **Tim.**TM

It's all in a day's work. Everything you could want for the most demanding clinical practice. And everything you need to keep you at the forefront of research. The unmatched 3T performance of MAGNETOM Trio with Tim (Total imaging matrix technology).

It redraws the applications frontier and explodes the limits of fast MRI. MAGNETOM Trio enables massive and uncompromised Parallel Imaging. Now, applications that were only possible in the realm of research can be translated into daily clinical routine.

MAGNETOM Trio accelerates scan time with unheard-of PAT factors. Leading to brilliant resolution of the most microscopic pathologies.

Built with dedicated Siemens components, it's the first fully integrated 3T system. Redefining reliability and giving you almost effortless workflow automation leading to increased throughput.

MAGNETOM Trio with Tim. Take clinical diagnosis to the extreme.

MAGNETOM Trio.

Making the extraordinary routine.







Tim

takes the revolution to 3T.

Tim, a clinically proven transforming technology with its highly innovative RF system and Matrix coil design, unleashes the true power of 3T. Tim technology is a unique combination of features that has launched a new era in powerful MRI advances. From revolutionary acquisition quality to breakthrough applications and remarkable profitability. Tim has opened up new worlds of possibility.

- Tim is a revolutionary. **Select exams, not coils.** [102x32] Up to 102 seamlessly integrated Matrix coil elements and up to 32 RF channels combined to create one Total imaging matrix.
- Tim sees all. **Local becomes total.** 181 cm (6') seamless, whole-body anatomical coverage with no coil reconfiguration or patient repositioning.
- Tim knows no boundaries. **Parallel in all directions.** Head to toe, front to back, and side to side for unlimited Parallel Imaging.

FROM A CLINICAL PERSPECTIVE:

Revolutionary routine.

It's time to take your clinical practice to places it's never been. Places only research has explored. Because now you can see into all of the most microscopic corners of the human body. With everyday ease and reliability.

Imagine. Routinely visualizing cranial arterioles at 200 micrometer resolution. Doing 3D CSI, fMRI, 256² matrix single-shot EPI on an any day basis. Seeing cartilage texture, cortical layers in the brain, or perforating arteries during the course of an average exam. Or scanning the whole torso, up to 50 cm FoV, in a single breathhold.

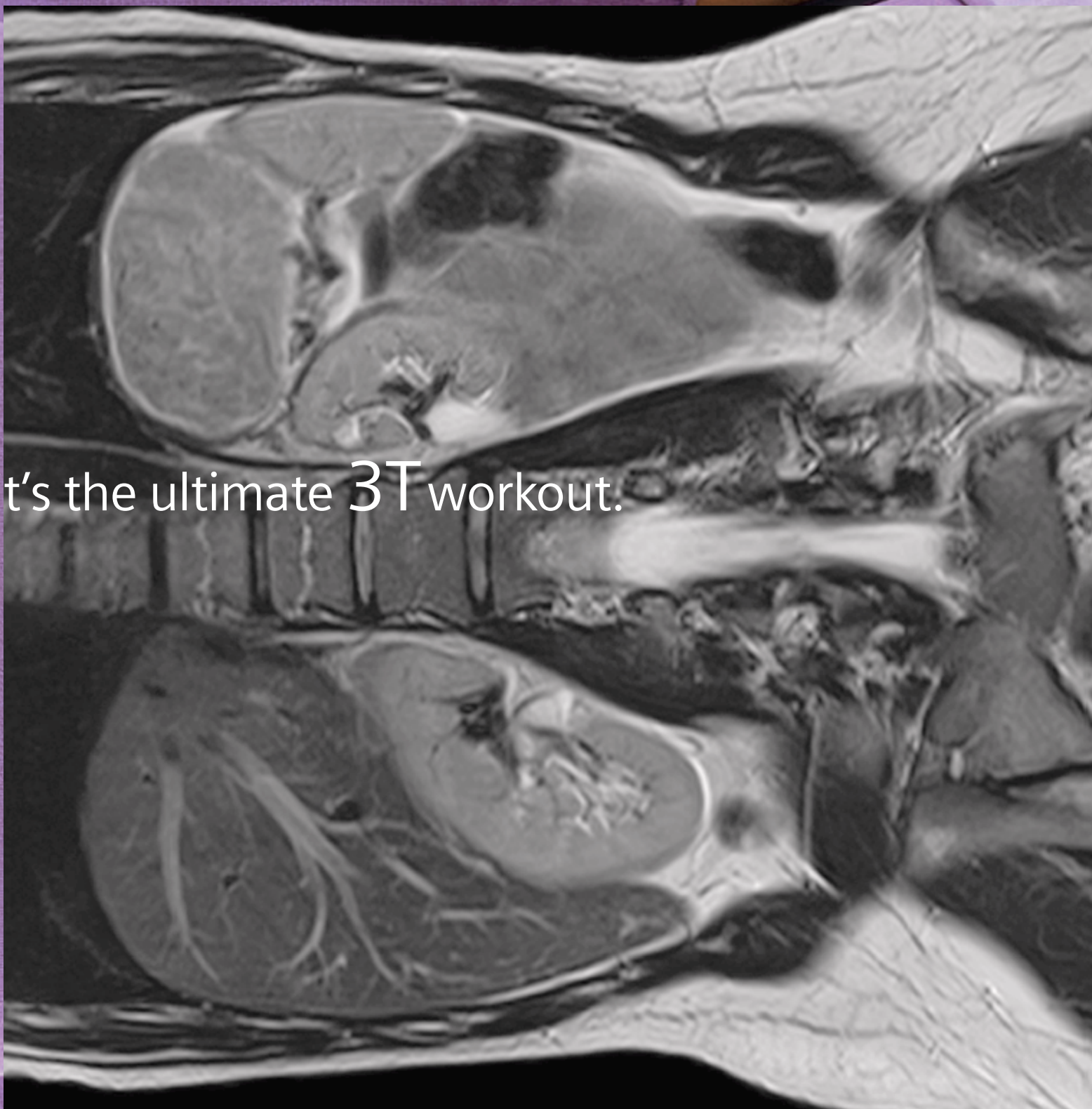
MAGNETOM Trio with Tim is the ultimate dual purpose machine. With the best 3T magnet in the industry and unmatched stability, it offers complete fat suppression and uncompromised TrueFISP applications for the ultimate clinical practice.

For researchers, Tim's 32 receiver channels let you move confidently into uncharted territory. And with MAGNETOM Trio's proven Matrix coil technology, even the most demanding practice can enjoy unheard-of 3T reliability, hand-in-hand with extraordinary possibility. MAGNETOM Trio with Tim. It's the best of all worlds.



With instant abs,

it's the ultimate 3T workout.





And with a three-minute
head protocol, this 3T
will keep you ahead
of the curve, too.

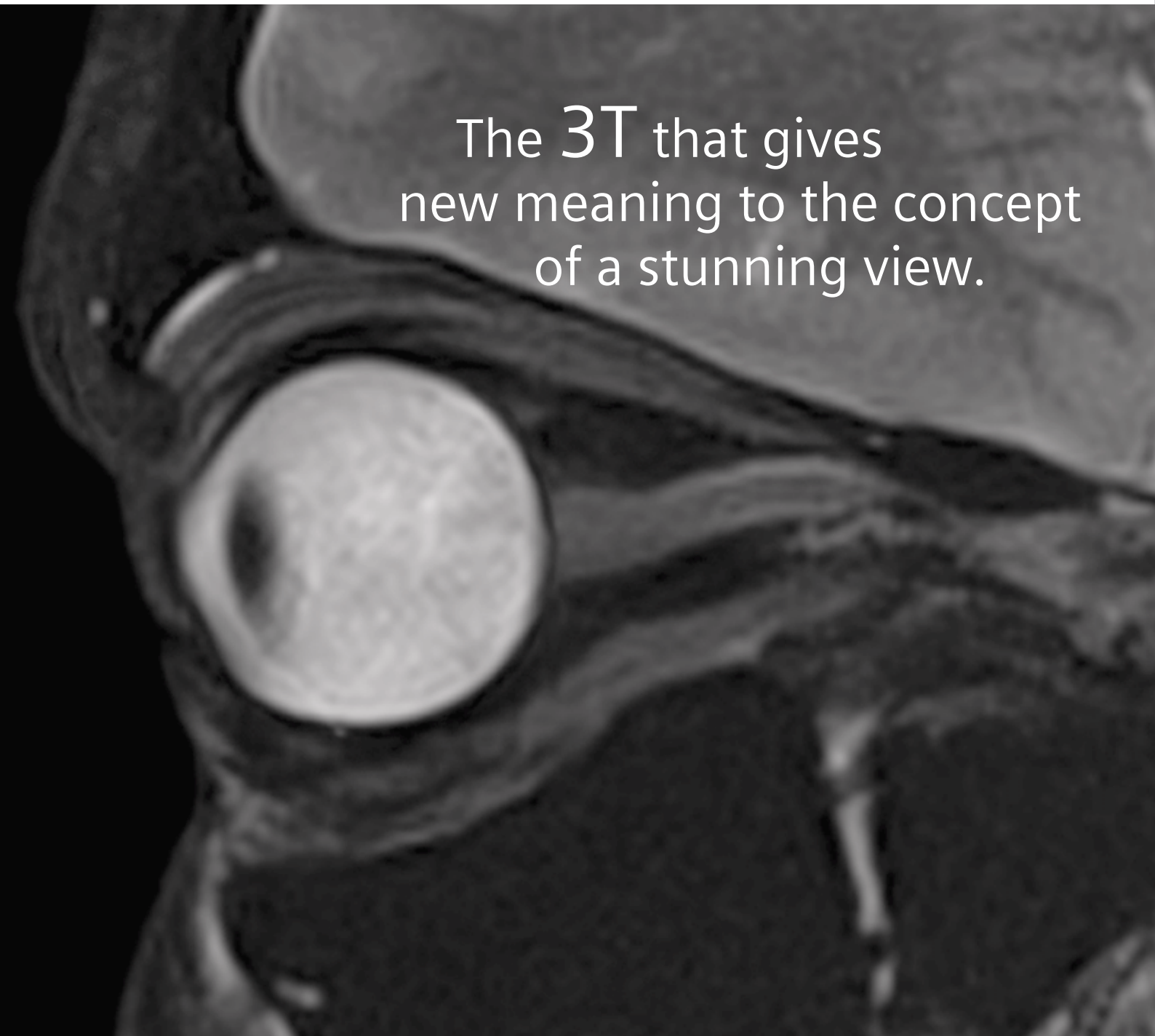
Tim makes MAGNETOM Trio the most reliable and extraordinary 3T system ever. Now you can perform a routine knee protocol in under two minutes. Or do 3D abdominal imaging with sub-millimeter resolution in just 15 seconds. With MAGNETOM Trio, you'll enjoy amazing spatial resolution for clinical routine. And see exquisite details to help you plan more complex neurosurgical procedures. Thanks to Tim you can do it all faster, better, and easier.

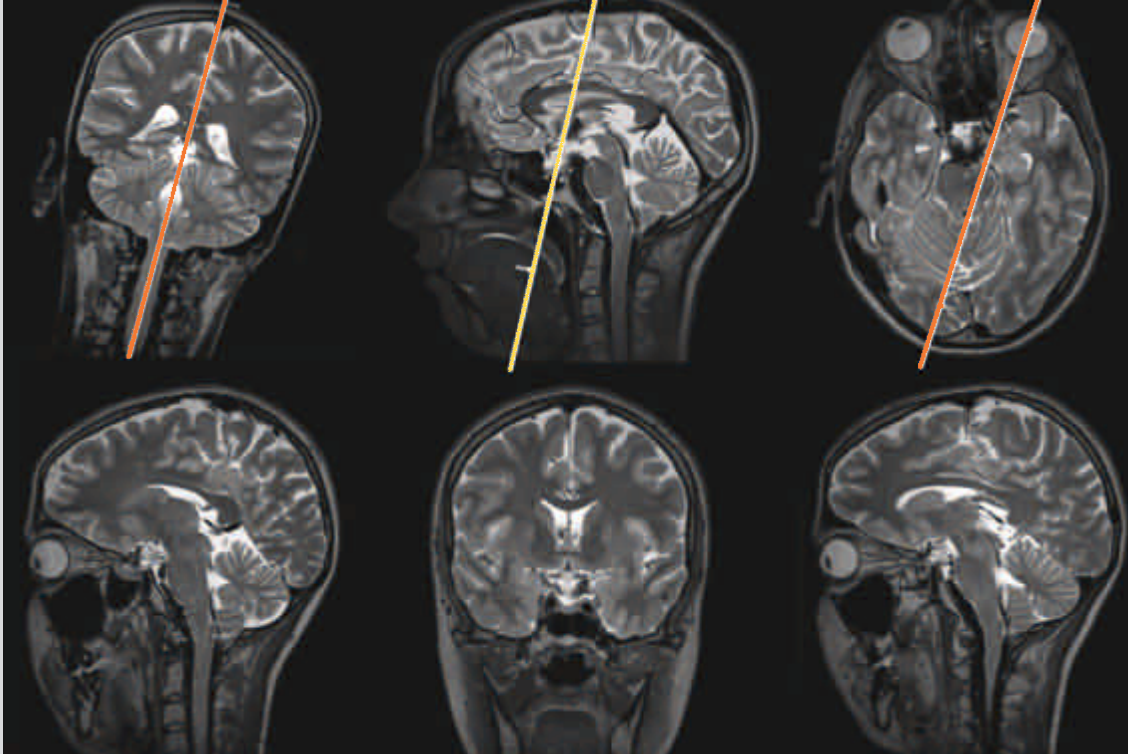
A person is lying down, wearing a purple 3T leotard and matching purple socks. The leotard has a wide, flat collar and a long, straight skirt. The person's arms are extended to the sides, and their legs are also extended. The background is a light-colored, textured surface, possibly a bed or a mat. The text "it's the ultimate 3T workout." is overlaid on the image in a white, sans-serif font.

it's the ultimate 3T workout.

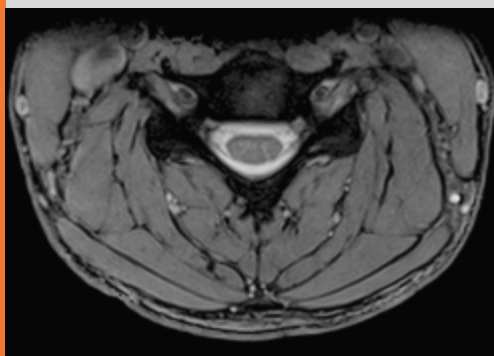
*MAGNETOM Trio with Tim
will open your eyes to what's
possible at 3T. With its high spatial
resolution and high SNR with
3T Matrix coils, MAGNETOM Trio
with Tim visualizes at the most
microscopic level, accelerating
early diagnosis and treatment
and helping to improve
patient prognosis.*

The 3T that gives
new meaning to the concept
of a stunning view.





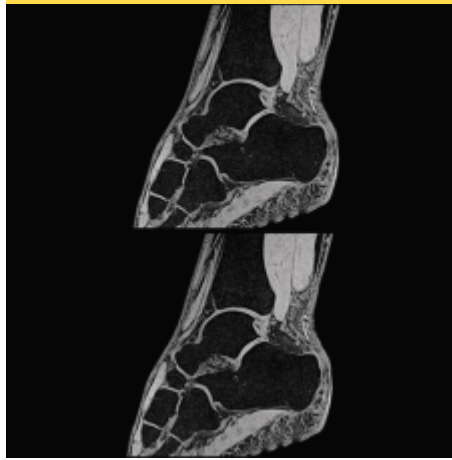
The combined power of Tim technology with 3T offers the best of all worlds with SPACE (Sampling Perfection with Application optimized Contrasts using different flip angle Evolutions). Now, high resolution 3D isotropic imaging with sub-millimeter resolution is possible for all body regions, with the shortest ever acquisition times. And with true isotropic high-resolution Multi-Planar Reconstruction (MPR) of such 3D data, free slice prescription after the scan is now possible, bringing CT-like post-imaging practices to MRI.



Achieve unmatched contrast and microscopic resolution in 3D in less than two minutes with MAGNETOM Trio and SPACE. You'll enjoy the highest possible SNR combined with the lowest possible SAR for unparalleled image quality covering large anatomical areas.

Tim technology combined with MAGNETOM Trio's 50 cm FoV enables imaging of the entire central nervous system without patient repositioning or coil reconfiguration. This composed two-step whole CNS study was acquired in less than four minutes, using 40 Tim Matrix coil elements.





With MAGNETOM Trio's Parallel Imaging capabilities, you'll appreciate what 3T can do in orthopedic studies. For example, VIBE with PAT 4 shows unmatched detail in just minutes.



MRCs will never be the same. MAGNETOM Trio with Tim allows free breathing and massive Parallel Imaging with sub-millimeter isotropic resolution in less than three minutes. And with SPACE, you can visualize fourth-level branching of the biliary ducts.



Tim + 3T + 50 cm FoV means MRA studies in a single step. From the top of the head to the lung in 20 seconds. This scan employed 24 seamlessly combined Tim Matrix coil elements to allow large coverage, highest efficiency and performance.

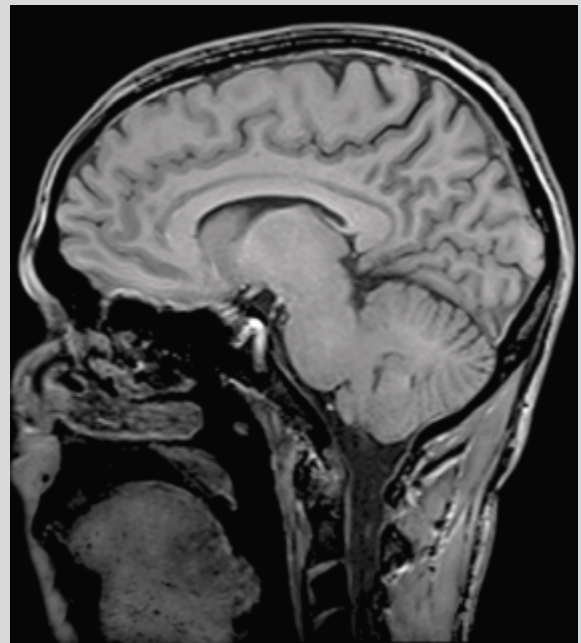
FROM A CLINICAL PERSPECTIVE:

Revolutionary speed.

Records are meant to be broken. And when you put Tim together with 3T that's exactly what happens. Now massive and uncompromised Parallel Imaging is possible. Only MAGNETOM Trio with Tim gives you a 32-channel 3T system — today. Enabling accelerations up to PAT 16. So a scan that used to take one hour can be completed in just five minutes. And the fastest physiological processes can be tracked easily. MAGNETOM Trio also offers iPAT (integrated Parallel Acquisition Techniques), the industry's only complete high-speed Parallel Imaging package with both GRAPPA (k-spaced based) and mSENSE (image-based) techniques. Reducing susceptibility artifacts and virtually eliminating SAR limitations. This is the first 3T system to support Parallel Imaging for peripheral angiography. With its 36-element Peripheral Angio Matrix coil, you can easily perform ultra-fast whole leg high-resolution MRA. Other applications such as diffusion EPI with hundreds of diffusion directions or perfusion studies with 30 slices for whole-head coverage are all possible now thanks to the power of 3T and Tim. So, are you ready to set some records of your own?



With 50 percent more Matrix coil elements, MAGNETOM Trio with Tim gives you higher SNR with ultrafast scans for uncompromised image quality. Achieve excellent T1 contrast in abdominal studies with the shortest ever breath-holds.



MAGNETOM Trio with Tim redefines the concept of time. Advanced Parallel Imaging techniques like iPAT² in combination with Tim's 3T Matrix coils and 32 RF channels enable PAT factors up to 16. So a scan that previously took one hour can now be completed in just a few minutes. That's the power of 3T and Tim. Together they redraw the boundaries of what's possible in clinical routine.



Now there's more for everyone to sm

ile about.



We've lightened the load.

Our Body Matrix ultra lightweight coil weighs only 950 grams (2.1 lbs). That's ten times lighter than the industry average in 3T. So it's significantly more comfortable, especially for very sick and frail patients. And with Tim's Matrix coil flexibility, you can combine several coils in the head-feet, as well as in the left-right direction.



Whisper quiet with high gradient performance.

MAGNETOM Trio reduces acoustic noise level by up to 90% with AudioComfort. With special casting and mounting of the gradient coil, unique MRI sequence design and innovative system covers, the sound level is more comfortable for the patient. Yet MAGNETOM Trio still delivers the kind of high gradient performance needed for the most demanding applications.



Easier for everyone.

MAGNETOM Trio's inviting design, with its low-to-the-floor position of just 57 cm (22") makes it accessible for everyone. For obese patients, MAGNETOM Trio supports up to 200 kg (440 lbs), without table movement restrictions. For claustrophobic patients, most exams can be done feet-first and the Head Matrix coil offers about 25% more access volume, so everyone fits into it more comfortably.

FROM A PATIENT PERSPECTIVE:

Revolutionary ease.

The shorter the exam time, the happier the patient. With this idea in mind, MAGNETOM Trio with Tim will make your patients very happy indeed.

With its unmatched PAT factors, MAGNETOM Trio redefines ultrafast MRI. Now your patients can be in and out of an exam faster than ever. Its super speed also means less chance of patient movement during a scan. So image quality is as high as possible and the need to rescan is significantly reduced. In addition, patients can be positioned once for multi-station studies. A big benefit for frail or elderly patients.

But most importantly, MAGNETOM Trio with Tim gives you greater-than-ever diagnostic confidence. With its visualization of exceptional details, fine morphology and pathological findings, you can diagnose and evaluate response to treatment earlier than ever before. Comfort. Ease. And confidence. All in one 3T system. MAGNETOM Trio with Tim will have everyone smiling.

FROM A BUSINESS PERSPECTIVE:

Revolutionary workflow.

Combine Tim with our unique workflow automation software and the results are amazing. You'll enjoy streamlined workflow with highest reproducibility, ultimate speed and maximum efficiency. From preparation through diagnosis. Our dedicated 3T Tim Matrix coils make MAGNETOM Trio the only fully integrated 3T system. And with Tim, patient setup and scan time is accelerated. There's no coil reconfiguration or patient repositioning. Several Matrix coils are integrated right into the table, so you can leave them in place for most exams. And we're redefining workflow in other ways, too:

- Inline Technology automates complex imaging processes, virtually eliminating several manual steps that normally require post-processing like diffusion, perfusion, MR Angio, fMRI, and prospective motion correction (PACE).
- AutoAlign revolutionizes workflow with automatic slice positioning. For highest reproducibility with uniform results.
- Phoenix gives you superior reproducibility based on your image, not on protocols.
- Intelligent Coil Control provides automatic coil position detection of all coil elements both fixed and flexible. Select the desired coil elements exactly to the desired anatomy with just one mouse click.



1. Technologist places Neck Matrix.




2. Technologist places Body Matrix.



3. Technologist places Head Matrix.

***It's that fast, that efficient, that simple —
no repositioning ever needed.***



Siemens offers the only fully integrated 3T system. Built with all dedicated Siemens components, it enables a level of reliability and stability just not possible before in 3T. Virtually eliminating down time or rejections.

With all dedicated components, it offers reliability through and through.



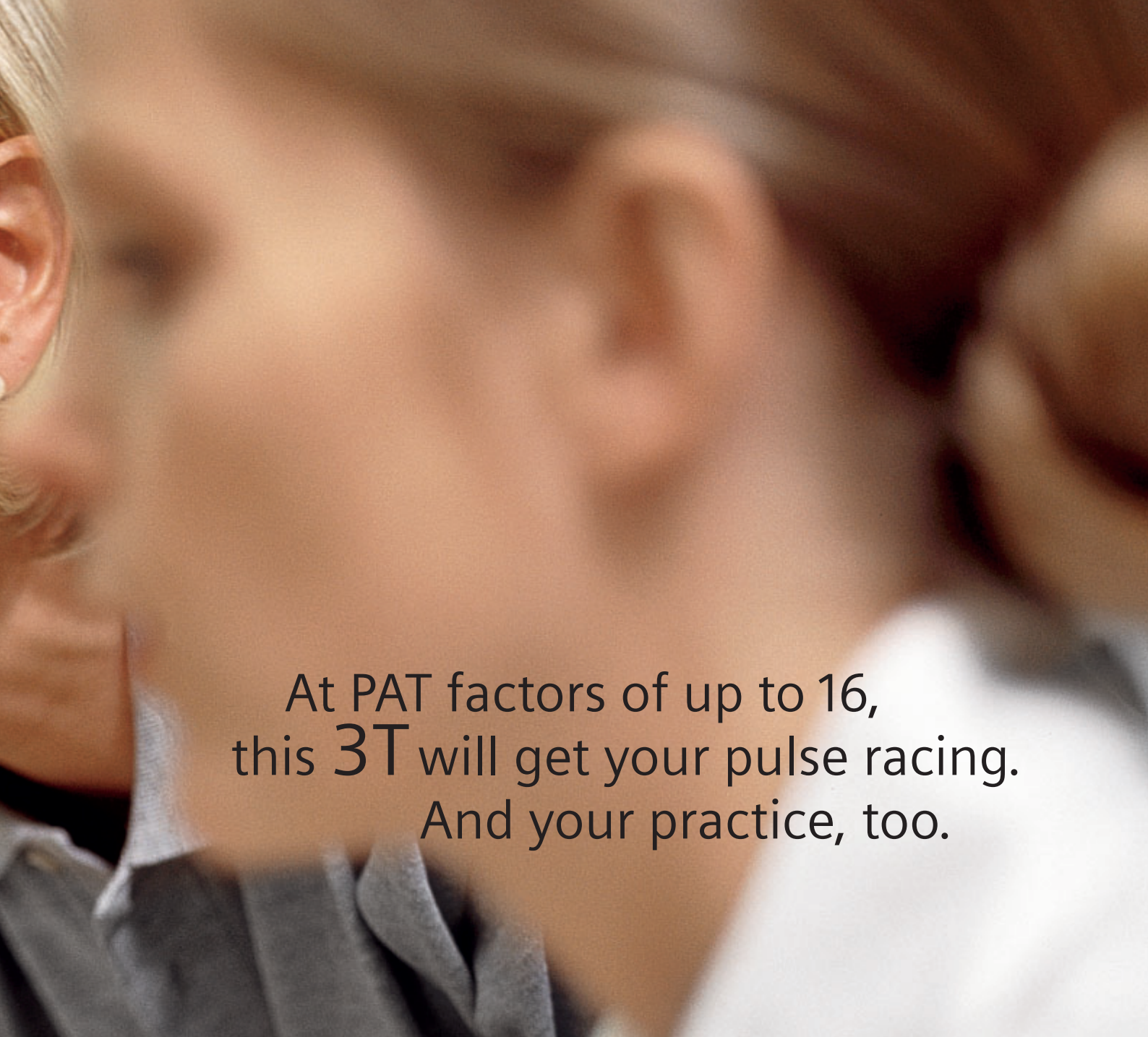
syngo®, Siemens unique software platform for medical applications and systems integrates all patient related information, physiological, and imaging data across your entire clinical workflow. In every workplace syngo's innovative user interface allows you to know intuitively what to do. Its intelligent automation features accelerate your exam, enabling smooth, efficient workflow, across modalities, departments, and people. With syngo, your workplace is uniquely customized to the way you work.

FROM A BUSINESS PERSPECTIVE:

Revolutionary return.

In today's highly competitive imaging market, MAGNETOM Trio with Tim gives you an opportunity to truly differentiate your practice and distinguish yourself from everyone else. All of which can potentially lead to more recognition, more referrals, and higher profits.


First, MAGNETOM Trio with Tim offers unmatched throughput, for faster scans and faster setup. Its brilliant images improve diagnostic confidence and offer peace of mind for radiologists and patients. MAGNETOM Trio with Tim also opens up a whole new world of applications. You can bring previous research applications into daily clinical practice. Yet researchers will appreciate the fact that it's the only 3T system available today that offers



At PAT factors of up to 16,
this 3T will get your pulse racing.
And your practice, too.

32 channels. A key element for successful research grant applications. Day in and out, MAGNETOM Trio offers the best price-performance ratio of any 3T on the market, while putting you in the right position for tomorrow, too. Because as the MRI market moves to higher fields, MAGNETOM Trio's 32 channels and Matrix coils enable you to take full advantage of the applications benefits that go hand-in-hand with higher field strength.

And with Life, our integrated customer care solution, you'll know that your ever-evolving business needs are also being met. Throughout the entire life cycle of your product. So you'll stay ahead of change. Instead of racing to catch up with it. MAGNETOM Trio with Tim. Together they guarantee that your investment will work today and long into the future. Nothing will get your practice moving better.

A Siemens MAGNETOM Trio MRI scanner is shown in a cutaway view, revealing its internal components. The scanner has a large, circular gantry with a blue and white color scheme. The Siemens logo is visible on the gantry. The patient bed is positioned inside the gantry. The text "MAGNETOM Trio A Tim System" is visible on the side of the gantry. Three orange circles are placed on the image: one at the top right, one on the left side of the gantry, and one on the patient bed. The background is a light gray gradient.

We see a way to deliver 40% more imaging volume than any other

We see a way to reduce local coil weight in 3T by a factor of 10

MAGNETOM Trio with Stand apart from

We see a way to visualize 0.4 mm cervical spine nerve rootlets in less than two minutes

We see a way to perform a 3D abdominal imaging with sub-milli

er 3T system

We see a way to do iPAT² with PAT factors of 16

Tim
the crowd.

meter resolution in 15 seconds

Results may vary. Data on file.

Proven Outcomes. This is what Siemens is helping to deliver right now. Outcomes that result from truly efficient workflow. Outcomes that improve your bottom line. Outcomes that lead to

Proven O

a level of care that feels exceptional to the patient and the care provider. Proof positive of the value of integrating medical technology, IT, management consulting, and services. In a way that only Siemens can.

utcomes.

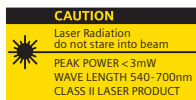
FROM A PERFORMANCE PERSPECTIVE:

Revolutionary distinction.

MAGNETOM Trio with Tim. It's about performance that exceeds. At all levels.

- **MAGNETOM Trio** is available with Tim [102x32] and with Tim [102x18] for studies ranging from demanding clinical routine up to the most advanced research. Extraordinary image quality, unmatched iPAT performance, excellent workflow, and whole body imaging functionality up to 181 cm (6').

It comes standard with a TQ-engine (45mT/m @200 T/m/s) — the strongest gradient in the industry. It offers the largest anatomical coverage with 50 cm FoV.



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Solutions that help