



New levels of operational excellence

Philips Magnetic Resonance Achieva 1.5T A-series

PHILIPS

A scanner that meets

- Achieve a complete diagnostic evaluation of the entire spine and brain in less than 20 minutes
- Attain DSA-like clarity with MRA
- Redefine the relationship between speed and resolution in breast imaging.

In short, use a 1.5T scanner in ways you never thought possible.



your needs

Magnetic resonance imaging has changed in many ways. Today, we can identify structures that used to be a blur and watch anatomical movement in real-time – or freeze it completely. We can image fine structural details – or the entire body.

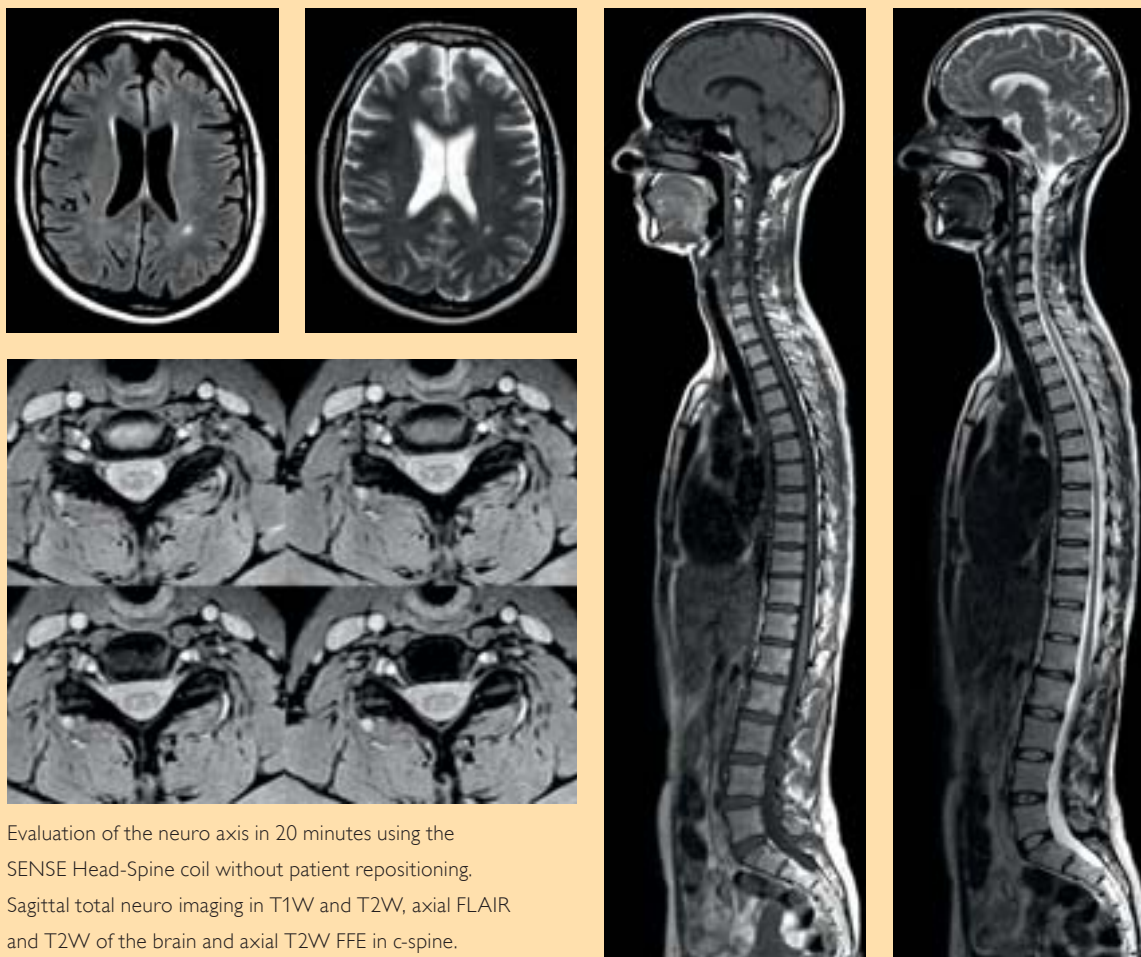
Along with these advances have come less welcome changes: more competition, declining reimbursement and longer waiting lists. Business as usual is no longer an option.

Philips Achieva 1.5T A-series is designed for today's clinical and business realities. It is dedicated to 16 channel imaging, with a

complete range of 16-channel coils. Every system building block – including the 16 channel data acquisition system, SmartExam, dedicated SENSE coils, Philips SENSE parallel imaging, the depth and variety of imaging techniques, and workflow innovations – contributes to the scanner's operational excellence.

The Achieva A-series is simple, fast and provides innovative solutions to help you:

- Simplify your workflow
- Accelerate your imaging
- Build your business.



Evaluation of the neuro axis in 20 minutes using the SENSE Head-Spine coil without patient repositioning. Sagittal total neuro imaging in T1W and T2W, axial FLAIR and T2W of the brain and axial T2W FFE in c-spine.

Simplify your workflow

While new technology can increase the value of MR imaging, it can also increase its complexity, reduce departmental efficiency and require additional training investments. At Philips, we believe advanced technology should make things simpler.

Are all your system operators at the same level of expertise? Is imaging consistent, to enable faster and more confident diagnosis? Do you maximize your scanner's return on investment by performing processing and other activities on a separate console? Philips Achieva A-Series can help you address these and other issues that affect departmental efficiency.

SmartExam

SmartExam automates exam planning, scanning and processing – all with a single mouse click. Its software automatically recognizes the anatomy, plans the MR exam, employs ExamCards to conduct the study and then processes the images, resulting in 100% consistent and reproducible results.

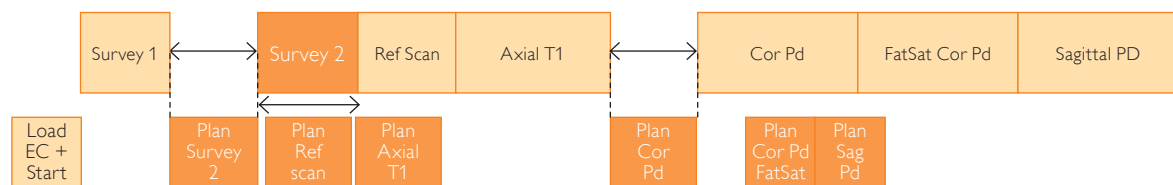
You can create your own ExamCards to reflect the preferences of your department, or you can download ExamCards from NetForum, Philips online user community. SmartExam automates head, spine, knee and shoulder examinations, which comprise over 75% of the typical caseload. SmartExam Brain is an integral part of all Philips Achieva A-series scanners.

SmartExam enables:

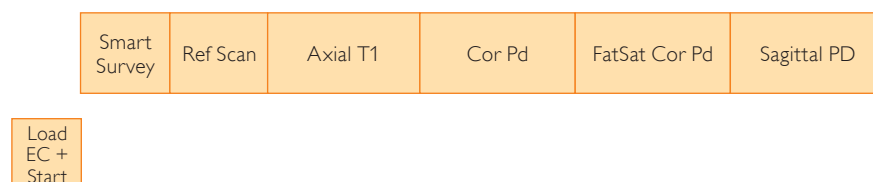
- Consistent, reproducible images
- Uniform image quality, regardless of operator expertise, patient age, patient position or pathology
- Better use of technologists' time
- Consistency in follow-up exams, improving patient care.

Shoulder Exam – Regular versus SmartExam

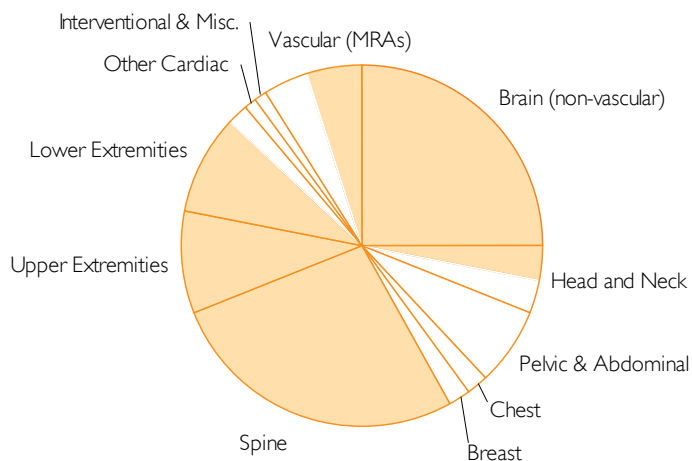
Regular



SmartExam



Activities/scans no longer required when using SmartExam



SmartExam covers >75% of typical procedure mix (Data USA)

“SmartExam gives us consistency – both in follow-up exams of the same patient as well as consistency between different patients.”

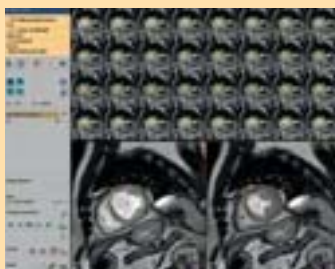
Winfried Willinek, M.D. University of Bonn

MR Extended WorkSpace

With Philips MR Extended WorkSpace you can prepare, process and report your exam at any location – leaving your scanner free for optimized throughput. While duplicating the viewing and processing capabilities of the scanner console, it also provides advanced applications like quantitative measurements, image arithmetic, customer/application-specific display protocols, 3D volume rendering, reporting tools and multi-modality image fusion and viewing.

MR Extended WorkSpace enables:

- Off-line viewing and processing, enabling efficient use of scanner
- ExamCard preparation and editing
- Easy and efficient radiology and cardiology reporting
- Advanced processing capabilities.



Cardiac left ventricle analysis.



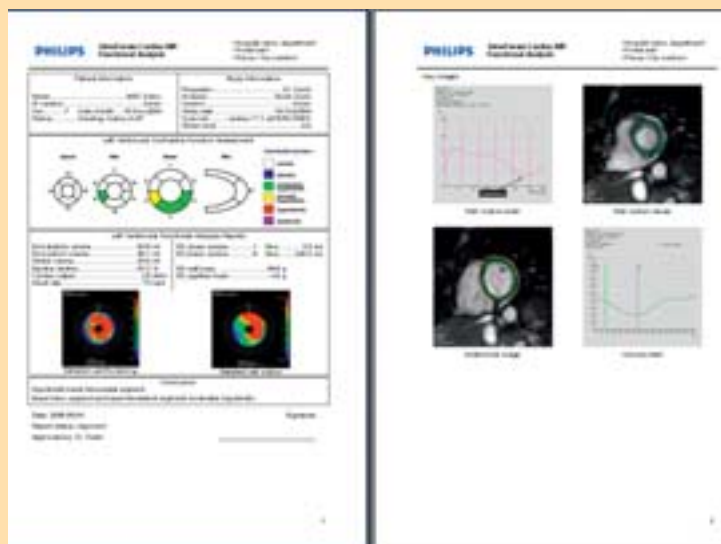
FiberTrak.



SpectroView.



Image fusion.



Cardiac MR reporting.

Accelerate your imaging

The Achieva A-series offers you a 16-channel FreeWave acquisition system (expandable to 32 channels) and a comprehensive range of dedicated high-channel SENSE coils. Add to this the power of SENSE imaging, and the result is a scanner that redefines the possibilities of imaging at 1.5T.

Achieva's high scan acceleration provides larger anatomic coverage, higher spatial and temporal resolution and artifact reduction. This performance opens the door to increased patient throughput and the ability to perform leading-edge applications.

With the powerful combination of SENSE, the FreeWave data acquisition system and 16-channel coils, you can:

- Perform a complete high resolution diagnostic evaluation of the cervical spine in less than 15 minutes
- Attain DSA-like clarity with MRA
- Redefine the relationship between speed and resolution in breast imaging
- Image the whole heart in a single breath-hold
- Exploit SENSE to include spectroscopy in the normal diagnostic routine
- Scan the entire abdomen and pelvis in a single breath-hold
- Image renal arteries without contrast in a single breath-hold.



TRANSE: non-contrast MRA of the pedal arch, 0.6 x 1.0 x 1.5 mm, 60 slices in 4:40 minutes.

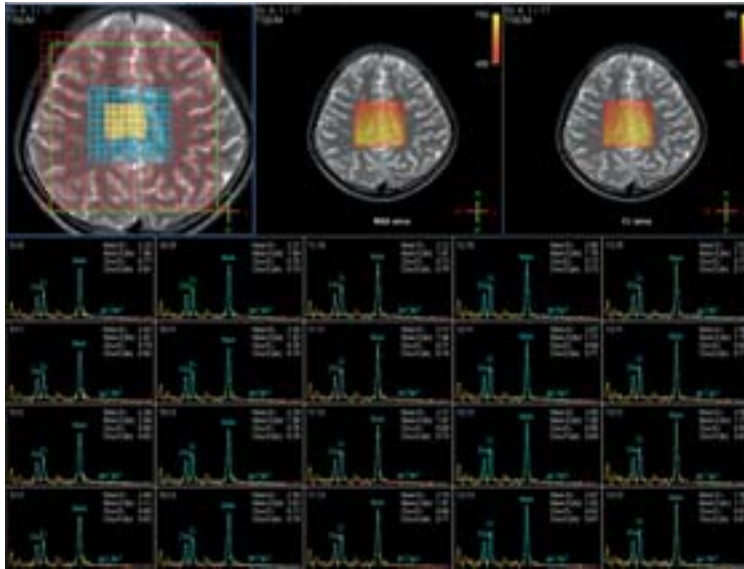
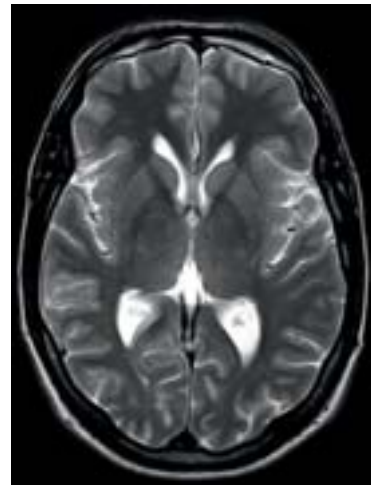
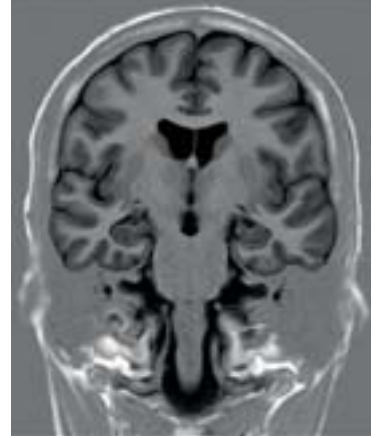


B-TRANSE: free-breathing, high resolution, non contrast enhanced MRA of the renal arteries enabled by navigator motion correction.

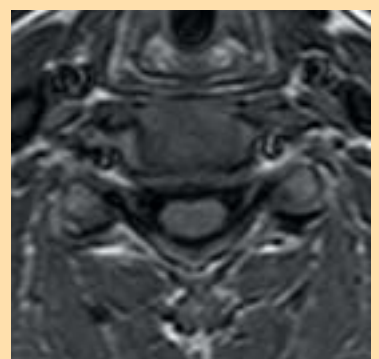
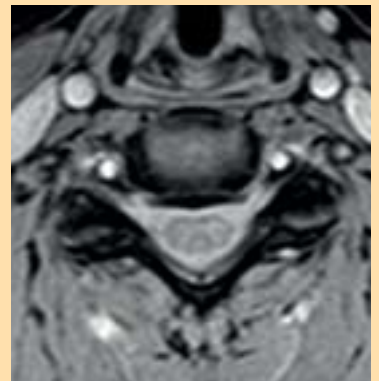


MobiFlex CE-MRA: tailored speed and resolution for each station, using the 16 Channel XL Torso Coil for the lower legs. Total scan time 2:20 min.

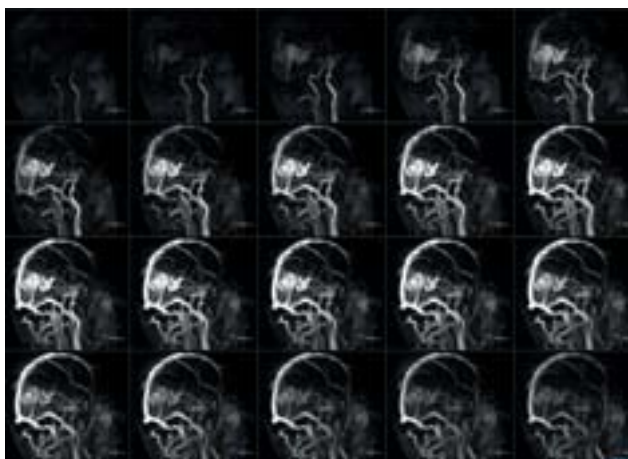
Right: These 90 second scans show that SENSE successfully combines high spatial resolution with reduced scan time. T2W and T1W TSE images with 24 slices of $0.6 \times 0.6 \times 5.0$ mm.



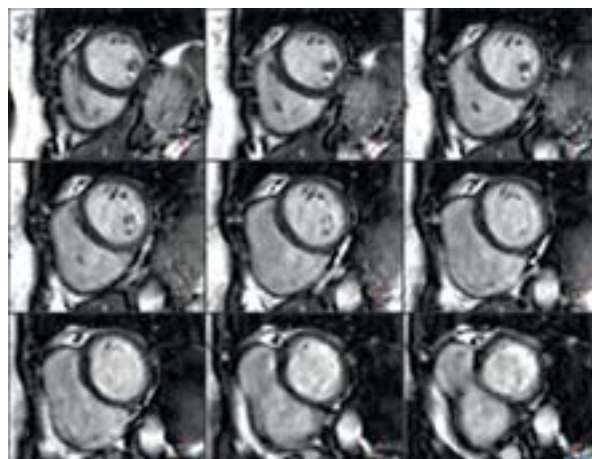
2D Spectroscopic Imaging, Scan time of 1:38 minutes enabled by SENSE.



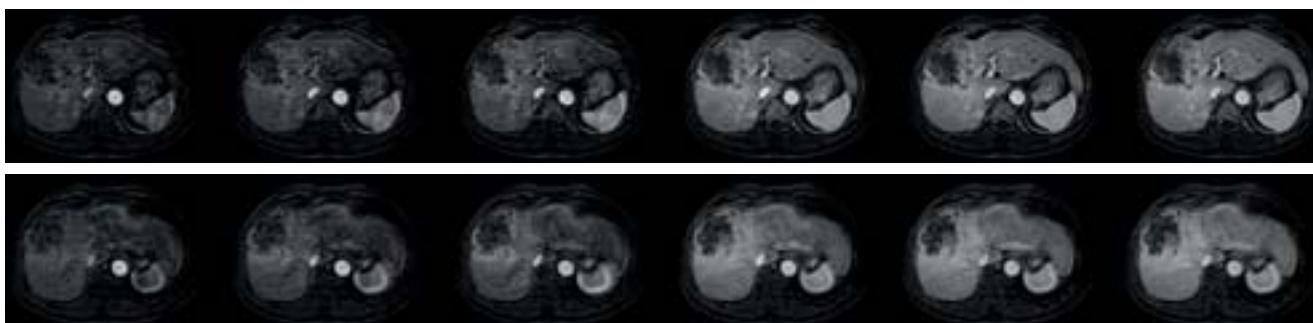
Comprehensive high resolution C-Spine exam using the SENSE Head Spine coil. Total scan time of 12 minutes for sagittal T1W and T2W TSE and 3D axial T1W TFE and T2W FFE.



4D-TRAK, the powerful combination of SENSE, CENTRA and Keyhole allows visualization of the whole brain providing DSA-like imaging. Each 0.9 seconds dynamic consists of 120 slices with $1.0 \times 1.0 \times 1.5$ mm resolution.



Whole heart 3D Cine imaging in a single breath-hold. 20 Seconds to acquire 24 slices in 20 heart phases enabled by high SENSE performance.



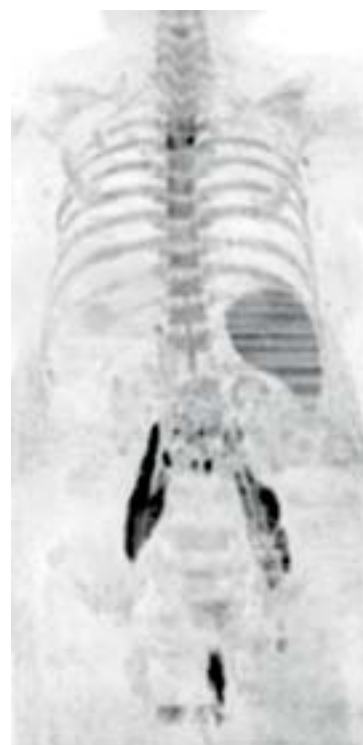
4D-THRIVE provides high temporal resolution to visualize multiple arterial phases in one single breath-hold. Dynamic scan time of 5.5 seconds per 100 slices covering the whole liver with isotropic resolution.



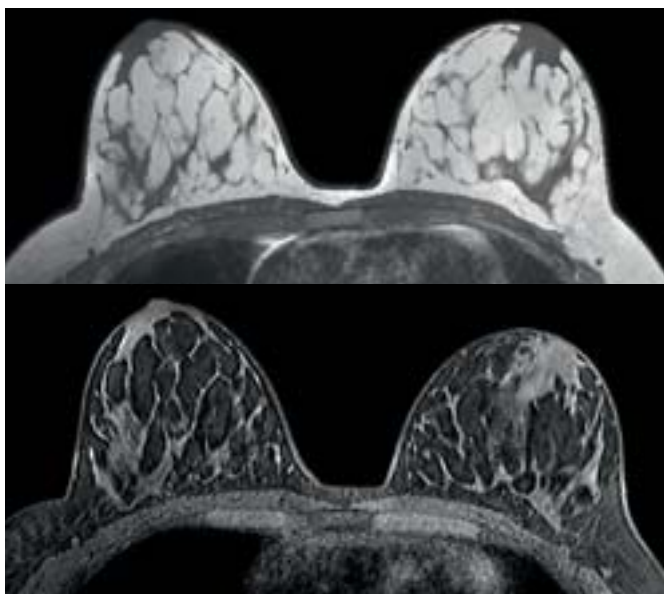
Left: SENSE free-breathing T2W TSE, optimal patient comfort and image quality in 360 ms per slice.



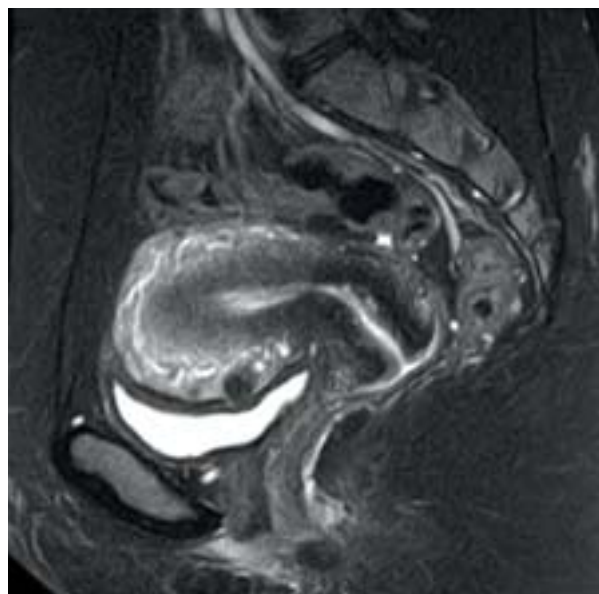
Middle: SENSE XL Torso coil delivers optimal speed and coverage. T2W TSE covering the whole abdomen and pelvis with 500 mm Field of View in 350 ms per slice.



Right: DWIBS, diffusion weighted imaging in the body for lesion visualization. Total scan time 4:30 min acquired with the Integrated Body coil.



The high channel SENSE breast coil provides excellent detail with short imaging times. Top: T1W TSE, $0.3 \times 0.4 \times 3.0$ mm, 20 slices in 3:52 minutes. Bottom: THRIVE, $0.5 \times 0.5 \times 1.0$ mm, 110 slices in 36 s.



SPAIR T2W TSE, homogeneous fat suppression in the pelvic region, $0.7 \times 1.0 \times 4.0$ mm, 24 slices in 4:33 minutes.



a-TSE enables higher resolution imaging with shorter scan times for improved cartilage visualization. PDW a-TSE, $0.2 \times 0.3 \times 2.0$ mm, 18 slices in 3:15 minutes.



SPAIR, robust off-center fat suppression, PDW a-TSE, $0.5 \times 0.6 \times 3.0$ mm, 24 slices in 3:38 minutes.



PDW a-TSE showing ACL lesion, $0.4 \times 0.6 \times 3.0$ mm, 24 slices in 4 minutes.

Build your business

To be at the cutting edge, you must advance the imaging you offer, while maintaining efficiency in core applications. The Achieva A-series offers tools to expand your clinical offerings while assuring optimal scanner use.



Philips Elite Clinical Solutions

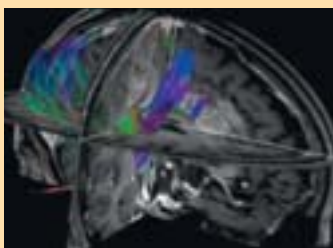
Philips Elite Clinical Solutions provide the building blocks you need to expand and improve your clinical offerings. These clinical solution sets for neuro, musculoskeletal, body, breast, cardiac, and vascular applications combine advanced imaging techniques with dedicated coils and meaningful workflow innovations.

For example, the Elite Neuro clinical solution combines best-in-class coils such as the SENSE head-spine coil with workflow innovations like SmartExam Brain and Spine, and imaging techniques that go beyond morphology.

Pre-surgical mapping of functional areas (BOLD) and connectivity (FiberTrak) in the brain; metabolic assessment of tissue via SENSE spectroscopic imaging; and perfusion via Arterial Spin Labeling are among the standard complement of imaging capabilities included in Elite Neuro. Elite Neuro not only offers data acquisition, but also controls stimulus delivery of the Eloquence¹ fMRI system and automated data analysis within the ExamCard environment, resulting in an integrated approach to functional neuro imaging.

Philips Elite Breast clinical solution offers all you need to successfully and efficiently perform breast diagnostic studies as well as biopsy guidance with MR. Innovative high channel count SENSE coils and trolley capabilities are combined with best-in-class imaging and spectroscopy techniques for optimal diagnostic imaging. All the tools are integrated for biopsy planning guidance and control including coils, biopsy devices and breast CAD analysis (DynaCad).

¹ Eloquence is not licensed for sale in Canada.



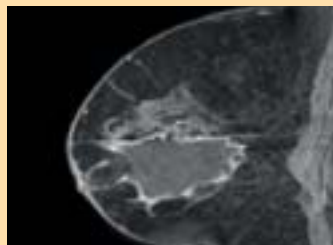
Neuro Elite.



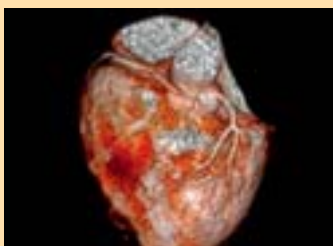
MSK Elite.



Body Elite.



Breast Elite.



Cardiac Elite.



Vascular Elite.



Philips Services

Philips Services help you succeed in every season of system ownership, from planning to start-up, through peak usage, maturity and renewal. Philips strong track record in upgradeability provides the assurance you need for a long useful life of your Achieva maximizing your return on investment.

Philips Services include:

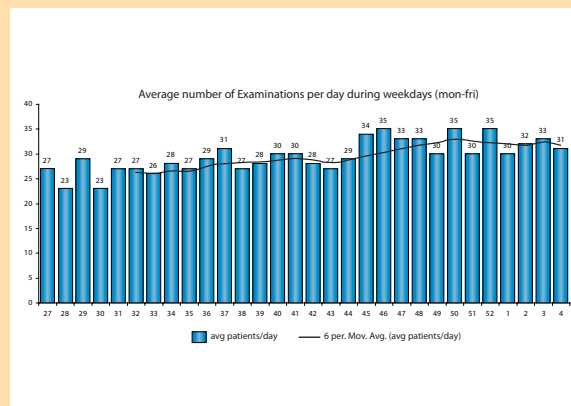
- Service agreements with uptime guarantees to maximize your equipment availability
- Utilization services, which measure scanner usage and provide detailed data that can be used to benchmark your operation and deliver insights that can help you improve scanner utilization for greater business efficiency
- NetForum gives you access to Philips experts and the Philips worldwide MR community. With web-based educational programs and downloading of peer-reviewed ExamCards right into your scanner, NetForum can help you improve the efficiency of your MR department
- Remote service, to detect potential issues before they become problems, and correct them remotely
- Philips technology updates, for longer-term hardware and software upgrades at predictable costs.

Are you ready to achieve operational excellence through simplified workflow, faster imaging and better solutions? To find out more about the Achieva A-series, please contact your Philips representative.

NetForum offers peer support and downloadable ExamCards to help you keep your imaging potential up-to-date.



Utilization Services Trend report. The data shows a noticeable increase in the average number of exams per day after making staff changes.



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