

GE Healthcare

PINPOINTING RADIATION THERAPY WITH THE PRECISION OF MR.

MR Radiation Oncology Suite





MAXIMIZE YOUR PRECISION.

HELP MINIMIZE PATIENT COMPLICATIONS.

Our goal in MR radiation oncology is to help you target and treat your patients' cancer without harming the healthy tissue surrounding it. While there are many options at your disposal, only MR can provide excellent soft tissue contrast, functional, metabolic and dynamic imaging, all with no radiation. And we have a fully customizable and comprehensive MR radiation oncology solution designed to take advantage of the latest MR technologies. Give yourself this essential option.

Your first step in efficiently integrating MR into your radiation treatment planning is to properly position the patient. Precise positioning improves image fusion with CT-based treatment plans and can reduce complications for patients.

Our coil technology is designed to work with many of the positioning devices you use. The result is high-quality diagnostic images in the treatment position. And since our solutions are easily integrated into your current radiation therapy workflow, your transition into utilizing the unique advantages of MR will be seamless.

WE HAVE PATIENT POSITIONING PACKAGES FOR A BROAD RANGE OF TUMORS

- ▶ BRAIN
- ▶ HEAD AND NECK
- ▶ PROSTATE
- ▶ GYN

Pelvic and abdomen imaging

The GEM Express patient table is a mobile patient transport with an embedded high-density posterior RF coil array. By positioning the patient on the GEM table with the oncology insert and using the GEM Suite anterior array and coil supports, you are able to achieve diagnostic quality pelvic and abdominal images in the treatment position.



MR RADIATION ONCOLOGY SUITE

PELVIS



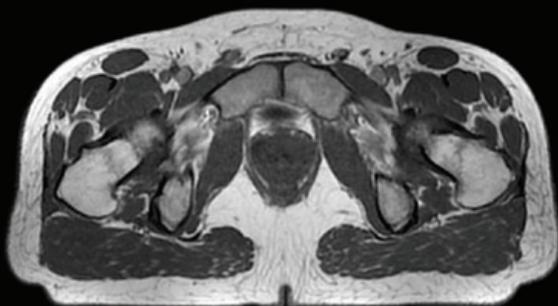
GEM Suite anterior array coil



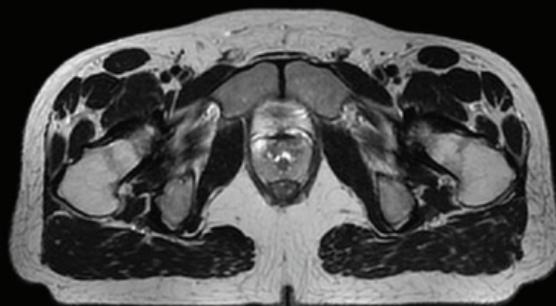
GEM Suite anterior array support



GEM Suite posterior array



Prostate
T1 FSE
40 x 40 FOV, 3 mm thick, 0 space

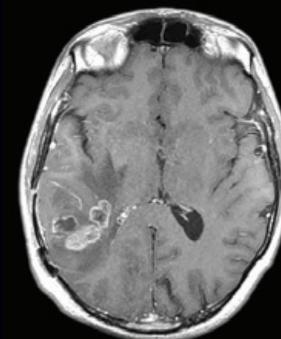


Prostate
T2 frFSE
40 x 40 FOV, 3 mm thick, 0 space

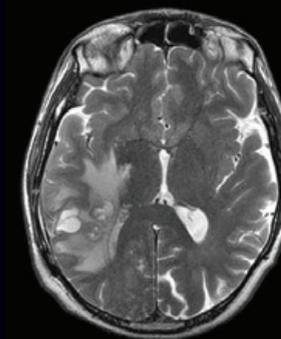
BRAIN/HEAD AND NECK



Six-channel Flex coil with brain positioner



Brain
T1 FSE post-contrast
3 mm thick, 0 space



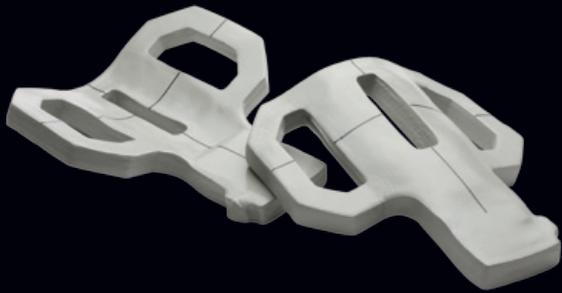
Brain
T2 frFSE
3 mm thick, 0 space



GEM RT Head and Neck Suite (full package)



Posifix® head and neck positioning package



Six-channel Flex coil



Large GEM Suite Flex coil



GEM Suite RT open array



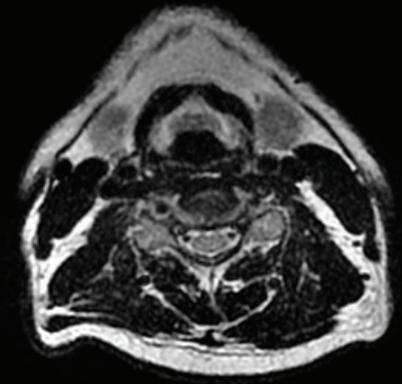
Head and Neck
PROPELLER 3.0
512 x 512 3 mm



Head and Neck
T1 Cube
1 mm thick



Head and Neck
T2 Cube
1 mm thick



Head and Neck
T2 Cube
3 mm reformat

CAPTURE DIAGNOSTIC IMAGES.

PRESERVE THE TREATMENT POSITION.

Maintaining the treatment position during simulation is important, but you shouldn't be forced to sacrifice image quality. Our flexible surface coils enable high-resolution imaging in the presence of industry-standard fixation devices. This allows you to collect diagnostic quality images while keeping the patient in the treatment position. Further, the coil positioning supports provide positioning flexibility with control for easy setup and repeatable imaging.

MR radiation oncology positioning insert

This insert provides a fully flat patient-imaging surface with industry-standard indexing notches required for attaching positioning devices to the Express table.



GEM RT open array

To enhance imaging of the head and neck, the GEM RT open array sits below the oncology positioning insert and underneath the patient's head and neck. While the RT open array is out of sight, it provides important coverage when combined with the six-channel neuro Flex coil and the 16-channel large GEM Flex coil to form the RT Open Head and Neck Suite. By not covering the face, the open design enhances patient comfort.



STIC



MR-compatible positioning packages

Manufactured by CIVCO, a market leader in radiation therapy patient positioning, these positioning packages are designed for use with the oncology insert for the Express table. Developed with MR compatibility and artifact reduction in mind, they allow you to confidently image patients in the treatment position for conventional radiation therapy and stereotactic radiosurgery.



INSIGHTFUL TECHNOLOGY.

TAILORED FOR ONCOLOGY.

Our premium wide bore MR systems deliver the high spatial integrity required for radiation oncology with an expansive 50 cm field of view that accommodates imaging out to the edge of the skin. Built on a fully redesigned MR platform, these systems feature advanced applications for rapid acquisition of high-resolution isotropic MR images, dynamic contrast-enhanced imaging and advanced workflow incorporated into industry-leading treatment simulation and planning software programs. Integrated with the MR Radiation Oncology Suite and GEM Suite of coils, you can help to characterize disease, plan treatment options, target tumors, preserve healthy tissue and assess response to therapy.

70 cm wide bore

1

Premium 1.5T and 3.0T w-series scanners have a 70 cm bore that accommodates radiation therapy positioning devices. The wide bore allows for easy patient setup and positioning consistent with CT radiation therapy simulation. The 50 cm FOV allows imaging to the edge of the skin.

High spatial accuracy

2

Our wide bore Optima* and Discovery* scanners inherently have excellent spatial characteristics due to the excellent gradient linearity and high magnet homogeneity. 3D Gradwarp, 3D gradient distortion correction software, further reduces distortion in the MR image.

Optical RF (OpTix)

3

OpTix Optical RF offers high channel count, analog to digital-optical signal conversion where it matters – inside the scan room to minimize noise and signal degradation, but away from the patient to enhance comfort and safety. The result is increased signal clarity and maximum signal intensity for clean, crisp high-resolution images.

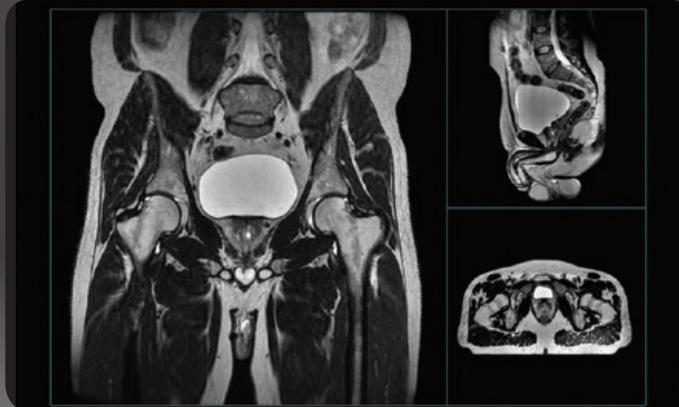


INTUITIVE APPLICATIONS.

INTEGRATED IN HARMONY.

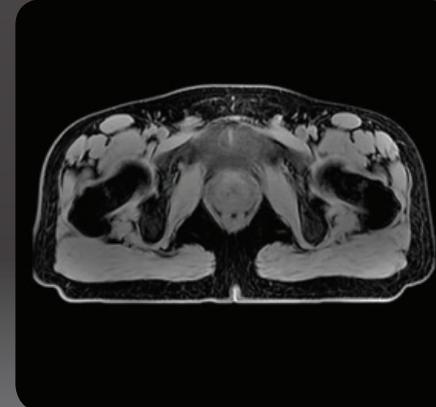
In order to properly distinguish tumor targets, you need a single hub capable of efficiently and seamlessly managing your images from multiple modalities. Our Integrated Registration (IR) imaging software on the AW workstation enables easy fusion of 3D anatomical images from CT, MR, PET, SPECT and X-ray. AW IR automatically and easily registers your therapy planning CT images to multiple MR image sets, improving productivity and connectivity between your image acquisition and therapy planning systems.

Add to that AdvantageSim⁺ MD, and you'll have advanced virtual simulation software that automatically defines contours and volumes and determines geometric beam placement to improve accuracy and speed of planning for high-precision radiotherapy techniques. This simulation tool provides the latest in simulation and localization technology to help you improve your productivity and accuracy in treating your patients.



Cube

Single 3D volume scan easily reformats to sub-millimeter isotropic resolution in any plane in all contrasts.



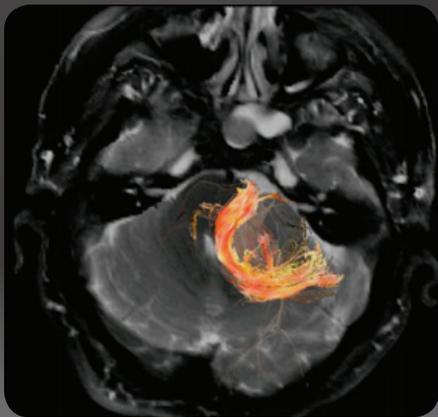
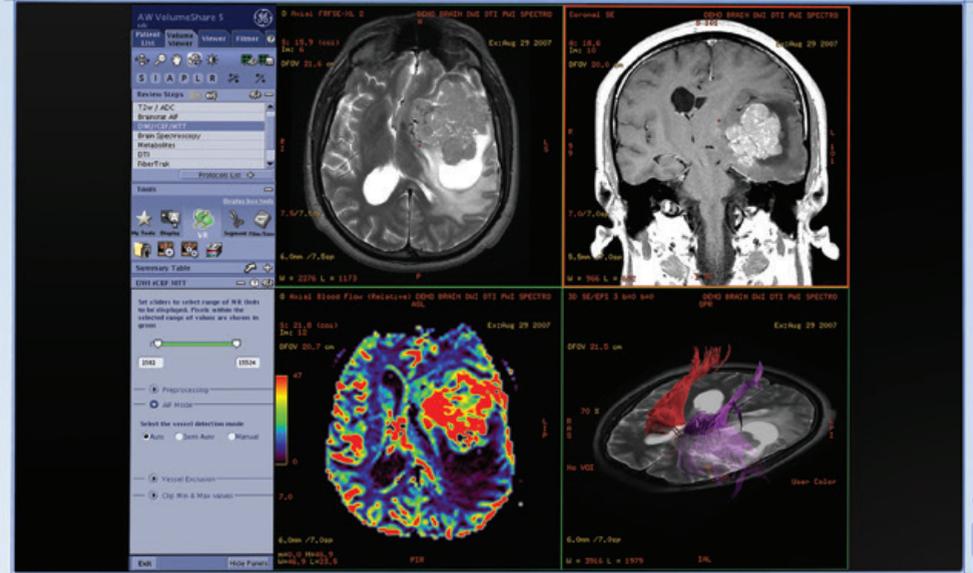
LAVA Flex

A rapid 3D sequence for consistent and reliable fat saturation in one breath-hold.



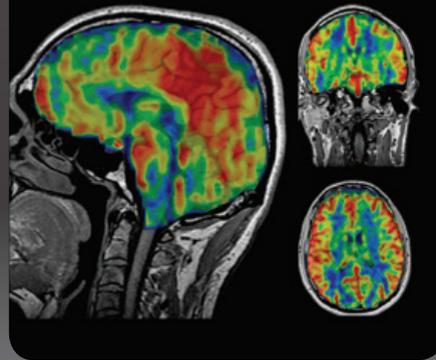
IDEAL

Improves visualization in areas traditionally difficult to image, such as the neck and spine.



Diffusion Tensor Imaging (DTI)

FiberTrak allows visualization of white matter tracts.



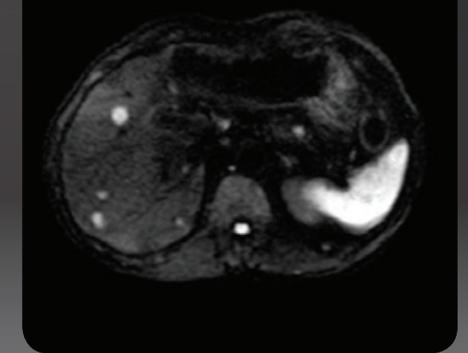
3D Arterial Spin Labeling (3D ASL)

Quantitative perfusion imaging without contrast.



PROPELLER 3.0

Motion-insensitive imaging for efficient neuro and body exams.



eDWI

Ability to visualize pathology and measure ADC values in a single breath-hold in the liver and beyond.



MAKE THIS OPTION YOUR NEW STANDARD.

“We developed the MR Radiation Oncology Suite so that you can utilize the unique capabilities of MR to help treat your patients’ cancer with precision. We are committed to providing a comfortable solution for the patient, while delivering high-resolution MR images, which may help you improve patient care. ”

– MR Radiation Oncology Suite [product manager](#)



About GE Healthcare

GE Healthcare provides transformational medical technologies and services to meet the demand for increased access, enhanced quality and more affordable healthcare around the world.

GE (NYSE: GE) works on things that matter - great people and technologies taking on tough challenges. From medical imaging, software & IT, patient monitoring and diagnostics to drug discovery, biopharmaceutical manufacturing technologies and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients.

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imagination at work

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