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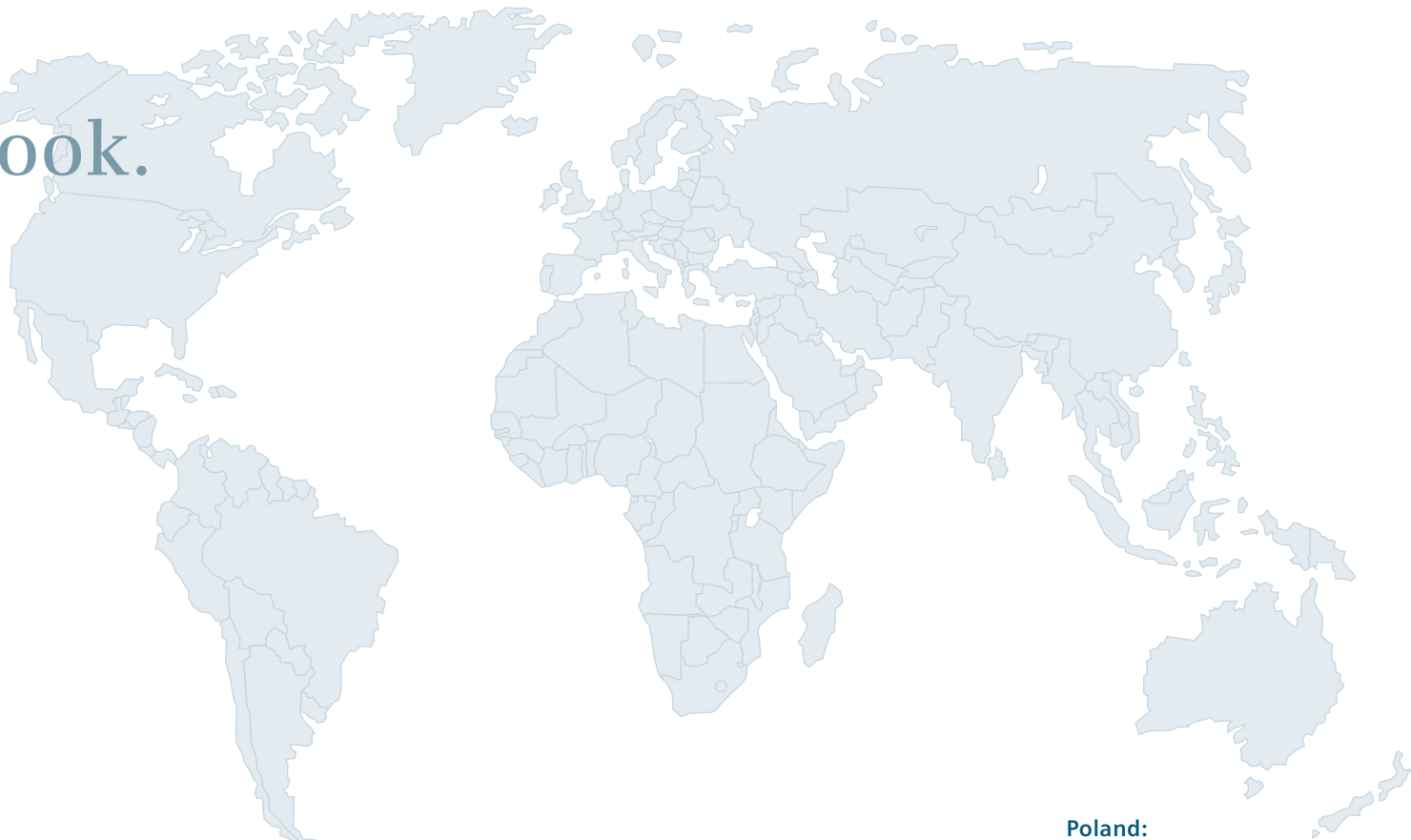
Siemens Healthcare Headquarters
Siemens Healthcare GmbH
Henkestrasse 127
91052 Erlangen
Germany
Phone: +49 9131 84-0
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MAGNETOM ESSENZA

Image Gallery

Thank you to all our customers worldwide* who contributed to this book.



USA:

- Baptist Memorial Hospital
Huntingdon, Huntingdon, TN
- Battlefield Imaging, Ringgold, GA
- Chippewa Valley Orthopedics,
Eau Claire, WI
- Imaging Healthcare Specialists,
Chula Vista, CA
- Northside/Holly Springs Imaging,
Holly Springs, GA

Colombia:

- Instituto Nacional de Cancerologia,
Bogota

Peru:

- ESKE S.R.L., Lima

Argentina:

- Clínica Colón, Mar del Plata,
Argentina
- Sanatorio Allende, Cordoba

Brazil:

- CEDIB, Barretos
- CDPI, Rio de Janeiro
- Hospital Santa Virginia, Sao Paulo
- Sonimed Diagnosticos,
Campo Grande

Germany:

- MVZ Dr. Neumaier & Kollegen,
Kelheim
- Praxis am Himmelsberg,
Zweibrücken
- Praxis in der Sportklinik Hellersen,
Lüdenscheid
- Radiologie am Harras, Munich

Spain:

- Hospital La Moraleja, Madrid

France:

- Centre d’Imagerie de Franconville,
Franconville La Garenne
- Hôpital Privé de la Seine St. Denis,
Le Blanc-Mesnil

Poland:

- Radiologica Wola, Warsaw

Slovakia:

- Dg. S.R.O. MR Pracovisko,
Rimavska Sobota

Bulgaria:

- MC “Pro-Vita”, Sofia

South Korea:

- Bupyeong Himchan, Incheon
- Suwon Radiologic Clinic, Suwon

China:

- DaLi 1st People’s Hospital, Dali
- PLA No. 306 Hospital, Beijing
- Shanghai City Children’s
Hospital, Shanghai
- Shenzhen People’s Hospital,
Shenzhen
- YanTai BeiHai Hospital, LongKou

Japan:

- Fukuoka Shin-Mizumaki Hospital,
Mizumaki, Fukuoka
- Tateyama Hospital, Tateyama

Vietnam:

- BV TIM, Hanoi

Philippines:

- De Los Santos Medical Center,
Quezon City

Brain

The MAGNETOM® ESSENZA Head/Neck Matrix coil delivers excellent performance and pristine image quality for standard and advanced applications like functional imaging (BOLD), perfusion or diffusion tensor imaging, and tractography.

Head/Neck Matrix

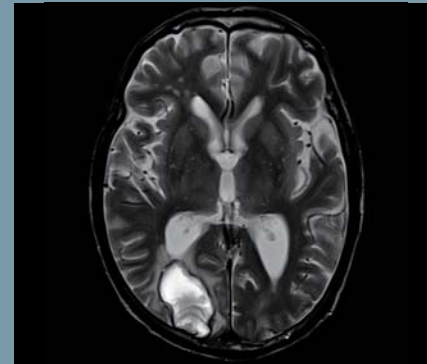


High-quality routine 2D imaging for adult and young patients with sub-millimeter in-plane resolution.

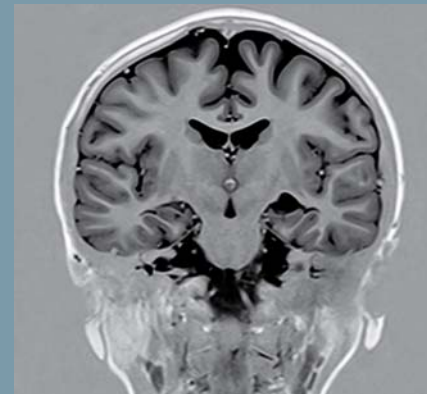
T1 TSE, 256 matrix, **SL 2 mm**, slices 13, TR 500, TE 12, TA 2:52 min
Sanatorio Allende, Cordoba, Argentina



T2 TSE, **384 matrix**, slices 20, TR 4000, TE 94, TA 2:44 min
Tateyama Hospital, Tateyama, Japan



8 year old, T1 true IR, 256 matrix, slices 26, TR 7172, TE 63, TI 350, **TA 1:40 min**
Shanghai City Children's Hospital, Shanghai, P.R. China



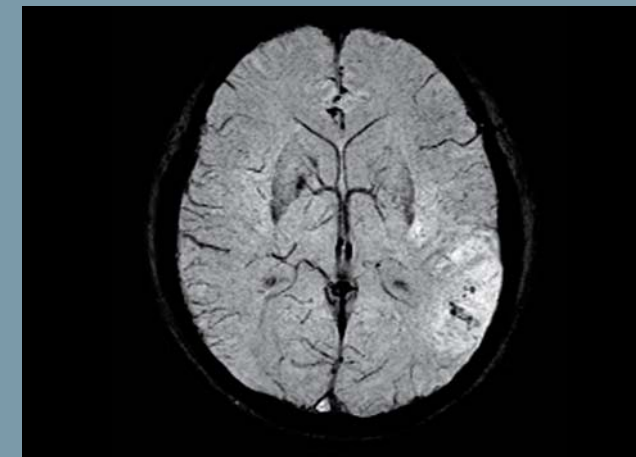
Advanced 3D imaging for crisp images with excellent through-plane resolution



T2 3D SPACE, GRAPPA 2, 256 matrix, **SL 1.0 mm (i)**, slices 176, TR 3000, TE 272, TA 6:32 min
Sonimed Diagnosticos, Campo Grande, Brazil



T2 3D SPACE Restore, GRAPPA 2, 320 matrix, **SL 0.6 mm (i)**, slices 72, TR 1200, TE 271, TA 4:19 min
CDPI, Rio de Janeiro, Brazil

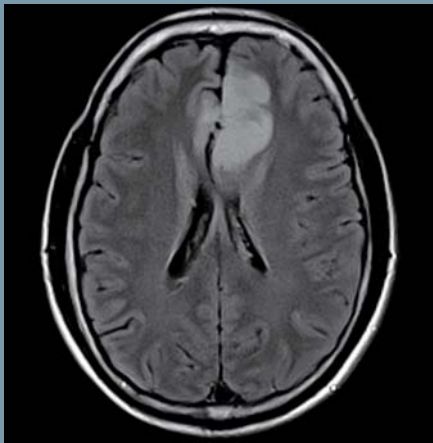


3D FLASH SWI ThinMIP, GRAPPA 2, 256 matrix, **SL 2.0 mm (i)**, slices 44, TR 49, TE 40, TA 2:48 min
PLA No. 306 Hospital, Beijing, P.R. China

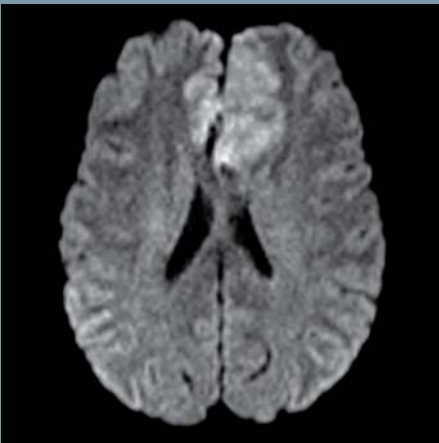


T1 3D MPRAGE, GRAPPA 2, 256 matrix, **SL 1.0 mm (i)**, slices 176, TR 1700, TE 5.1, TI 850, TA 4:21 min
Sonimed Diagnosticos, Campo Grande, Brazil

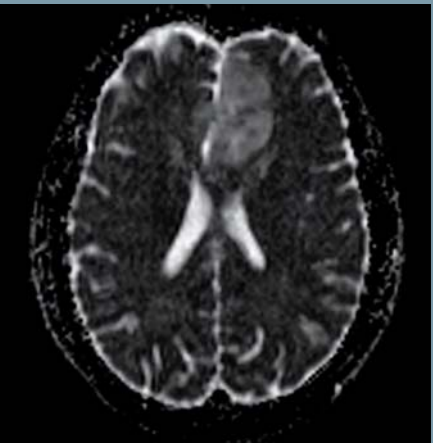
Comprehensive tumor evaluation – diffusion, perfusion, and spectroscopy



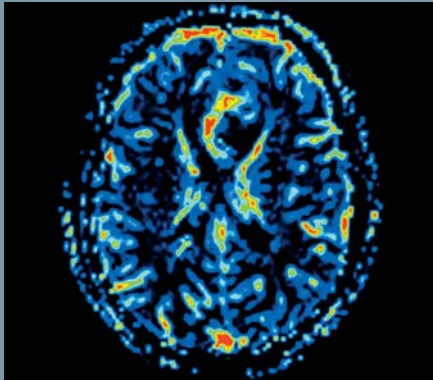
Dark Fluid, GRAPPA 2, **BLADE**, 256 matrix, slices 22, TR 8500, TE 117, TA 3:06 min



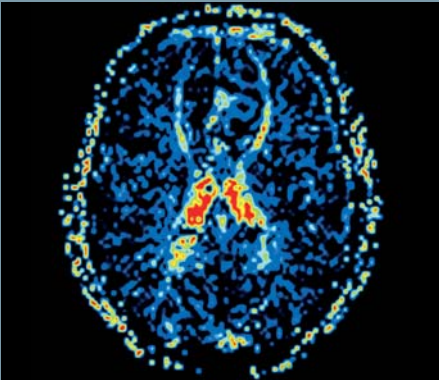
Diffusion b1000, GRAPPA, 160 matrix, slices 22, TR 4200, TE 119, TA 0.07 s/slice



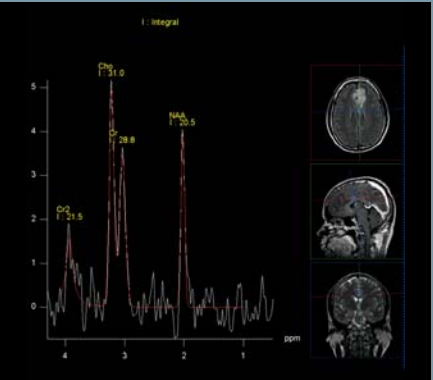
ADC map, GRAPPA 2, 160 matrix, slices 22, TR 4200, TE 119, TA 0.07 s/slice



relCBV
Perfusion, GRAPPA 2, 128x128 matrix, slices 50x20, TR 1990, TE 45, TA 0.05 s/slice



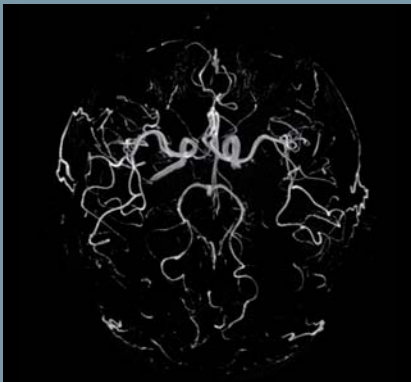
relMTT



Spectroscopy CSI SE 90 NA 3, TR 1690, TE 135, TA 6:46 min

Instituto Nacional de Cancerologia, Bogota, Colombia

TOF 3D Angio – great level of detail



3D FLASH TOF MIP, 384 matrix, SL 0.6 mm (i), slices 176, TR 29, TE 7



3D FLASH TOF MIP, GRAPPA 2, 256 matrix, SL 0.8 mm (i), slices 136, TR 28, TE 7
Shenzhen People's Hospital, Shenzhen, P.R. China



3D FLASH TOF VRT, GRAPPA 2, 448 matrix, SL 0.9 mm (i), slices 102, TR 30, TE 7
CDPI, Rio De Janeiro, Brazil

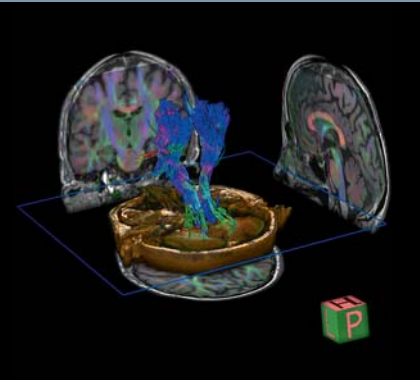
Brain imaging on MAGNETOM ESSENZA

fast routine



T2 TSE, GRAPPA 2, 320 matrix, slices 30, TR 5720, TE 97, **TA 46 s**
Sonimed Diagnosticos, Campo Grande, Brazil

and advanced capabilities



DTI Fibertracking, GRAPPA 2, 128 matrix, slices 19, TR 3100, TE 107, TA 0.04s/slice

Head/Neck

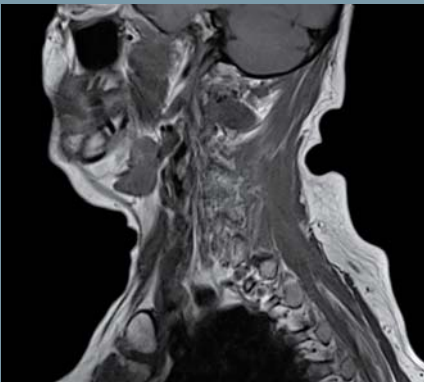
The 10-element Head/Neck Matrix coil is designed for excellent coverage, easy set-up, and high patient comfort. Tim® technology and the integrated IsoCenter Matrix coil make repositioning and manual coil selection unnecessary.

Head/Neck Matrix,
ready for scanning
without anterior part

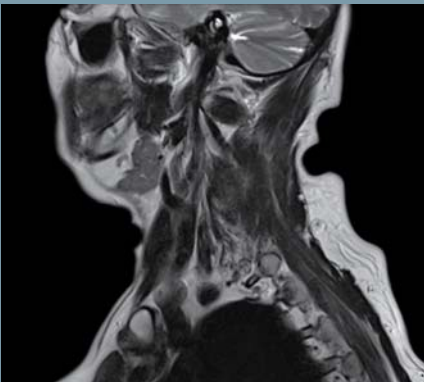


Head/Neck & IsoCenter Matrix

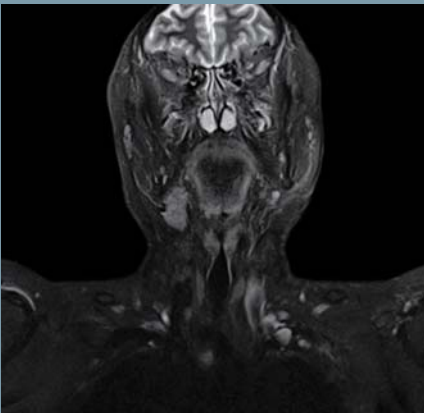
T1 TSE, GRAPPA 2, 320 matrix, slices 19, TR 540, TE 10, TA 2:34 min



T2 TSE Restore, GRAPPA 2, 320 matrix, slices 19, TR 2500, TE 92, TA 2:14 min

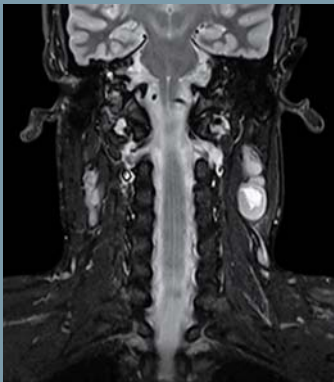


T2 TIRM, GRAPPA 2, 320 matrix, slices 23, TR 3800, TE 71, TA 3:22 min, TI 170

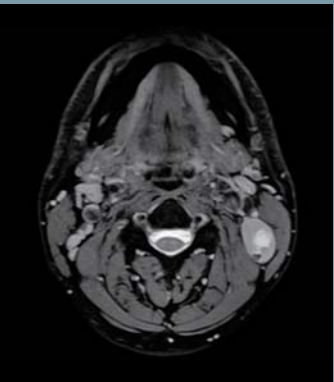


Radiologica Wola, Warsaw, Poland

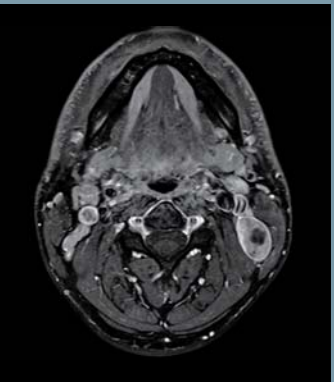
Excellent FatSat – whichever technique you prefer



T2 TSE TIRM, GRAPPA 2, 256 matrix, slices 20, TR 4000, TE 30, TI 170, TA 3:16 min
Hospital La Moraleja, Madrid, Spain



T2 Medica FatSat pc, GRAPPA 2, 256 matrix, slices 17, TR 652, TE 22, TA 4:14 min
Hospital La Moraleja, Madrid, Spain

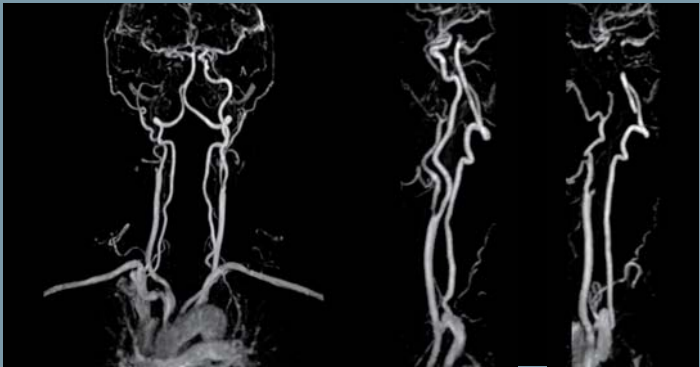


T1 TSE FatSat pc, **384 matrix**, slices 16, TR 431, TE 9.8, TA 4:06 min
Hospital La Moraleja, Madrid, Spain



T2 TSE **DIXON** water, GRAPPA 2, 256 matrix, slices 20, TR 4000, TE 81, TA 2:38 min

High level of detail in CE-MRA



3D FLASH ce-MRA. MIP, GRAPPA 2, **204x320 matrix**, **SL 1.2**, slices 64, TR 3.9, TE 1.5, TA 17 s
MVZ Dr. Neumaier & Kollegen, Kelheim, Germany



T2 TSE, GRAPPA 2, 256 matrix, slices 20, TR 4270, TE 89, **TA 1:25 min**
Shanghai City Children's Hospital, Shanghai, P.R. China



T1 TSE, GRAPPA 2, 256 matrix, slices 20, TR 610, TE 11, **TA 1:05 min**
Shanghai City Children's Hospital, Shanghai, P.R. China

High confidence in pediatric imaging*, 5-month-old patient example

* MR scanning has not been established as safe for imaging fetuses and infants under two years of age. The responsible physician has to decide about the benefit of the MRI examination in comparison to other imaging procedures.

C-Spine

High image quality and no more manual coil positioning make C-Spine imaging with Tim very efficient.

Your needs are versatile!
Therefore, high-res 2D, advanced 3D, and different Fat Saturation techniques are simply standard for MAGNETOM ESSENZA.

T2 SPACE, **GRAPPA 3**, 384 matrix, **SL 2 mm**, slices 20, TR 1500, TE 114, TA 3:35 min



T1 TSE, GRAPPA 2, 320 matrix, SL 3 mm, slices 13, TR 639, TE 10, TA 2:23 min
Battlefield Imaging, Ringgold, GA, USA



T2 TSE Restore, GRAPPA 2, **384 matrix**, SL 3 mm, slices 13, TR 3000, TE 90, **TA 2:03 min**
Battlefield Imaging, Ringgold, GA, USA



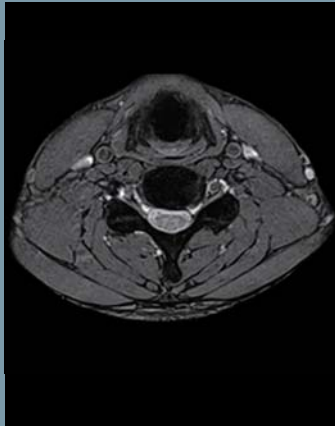
T2 TIRM, GRAPPA 2, 320 matrix, SL 3 mm, slices 13, TR 3000, TE 65, TI 160, TA 3:15 min
Battlefield Imaging, Ringgold, GA, USA



T1 TSE, **384 matrix**, SL 3 mm, slices 13, TR 511, TE 21, TA 2:36 min
Bupyeong Himchan Hospital, Incheon, Republic Korea



T2 TSE Restore, **384 matrix**, SL 3 mm, slices 13, TR 2770, TE 98, TA 2:55 min
Bupyeong Himchan Hospital, Incheon, Republic Korea



T2 Mediac, GRAPPA 2, **384 matrix**, SL 3 mm, slices 21, TR 986, TE 23, TA 3:12 min
Bupyeong Himchan Hospital, Incheon, Republic Korea



T2 TSE DIXON water, 320 matrix, SL 3 mm, slices 13, TR 3000, TE 82, TA 1:58 min



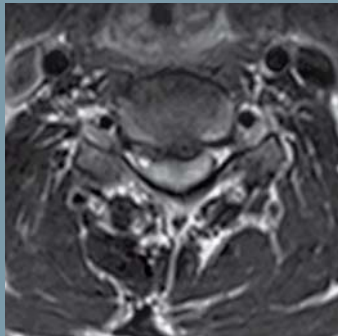
T1 TSE, **384 matrix**, SL 3 mm, slices 13, TR 550, TE 110, TA 2:48 min
Shenzhen People's Hospital, Shenzhen, P.R. China



T2 TSE Restore, **384 matrix**, SL 3 mm, slices 13, TR 3000, TE 88, TA 2:51 min
Shenzhen People's Hospital, Shenzhen, P.R. China



T2 TIRM sag, 256 matrix, SL 3 mm, slices 13, TR 4000, TE 38, TA 2:52 min
Shenzhen People's Hospital, Shenzhen, P.R. China



T2 TSE Restore, 256 matrix, SL 4 mm, slices 25, TR 3000, TE 73, TA 4:18 min
Shenzhen People's Hospital, Shenzhen, P.R. China

T-Spine

A large Field of View (FoV) coverage and state-of-the-art iPAT performance allow for an easy and streamlined workflow.

Benefit from excellent signal-to-noise ratio (SNR) and no need for coil positioning, due to the IsoCenter Matrix coil intrinsically being at the right position.



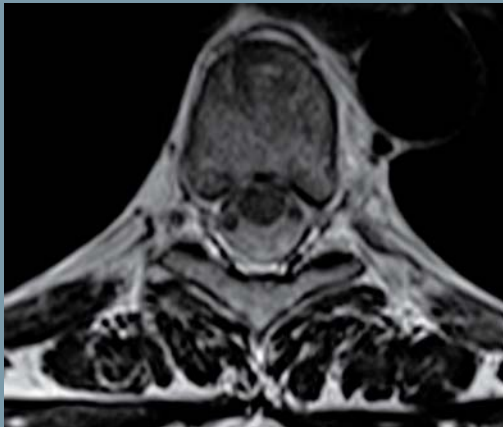
T2 TSE Restore, 384 matrix, SL 4 mm, slices 17, TR 3110, TE 71, TA 2:14 min
Praxis am Himmelsberg, Zweibrücken



T2 TSE Restore, 384 matrix, SL 3 mm, slices 13, TR 4000, TE 79, TA 4:21 min
Battlefield Imaging, Ringgold, GA, USA



T2 TSE Restore, GRAPPA 2, **448 matrix**, slices 13, TR 3000, TE 74, TA 2:33 min
Praxis am Himmelsberg, Zweibrücken



T2 TSE, 320 matrix, SL 3.5 mm, slices 18, TR 3250, TE 77, TA 3:12 min
Praxis am Himmelsberg, Zweibrücken

Comprehensive T-spine clinical example, high image resolution, and pristine FatSat over the complete FOV



T1 TSE, GRAPPA 2, 320 matrix, SL 3 mm, slices 15, TR 600, TE 10, TA 3:50 min
Northside/Holly Springs Imaging, Holly Springs, GA, USA



PD TSE, 320 matrix, SL 3 mm, slices 17, TR 2500, TE 9.7, TA 3:43 min
Northside/Holly Springs Imaging, Holly Springs, GA, USA



T2 TSE Restore, GRAPPA 2, 320 matrix, SL 3 mm, slices 17, TR 3030, TE 99, TA 1:58 min
Northside/Holly Springs Imaging, Holly Springs, GA, USA



T2 TIRM, 384 matrix, SL 3 mm, slices 17, TR 5230, TE 71, TI 170, TA 5:09 min
Northside/Holly Springs Imaging, Holly Springs, GA, USA

Pediatric case example 3-year-old patient

pre-surgery



T1 TSE native and pc, GRAPPA 2, 256 matrix, slices 13, TR 610, TE 11, **TA 1:28 min**
Shanghai City Children's Hospital, Shanghai, P.R. China

post-surgery



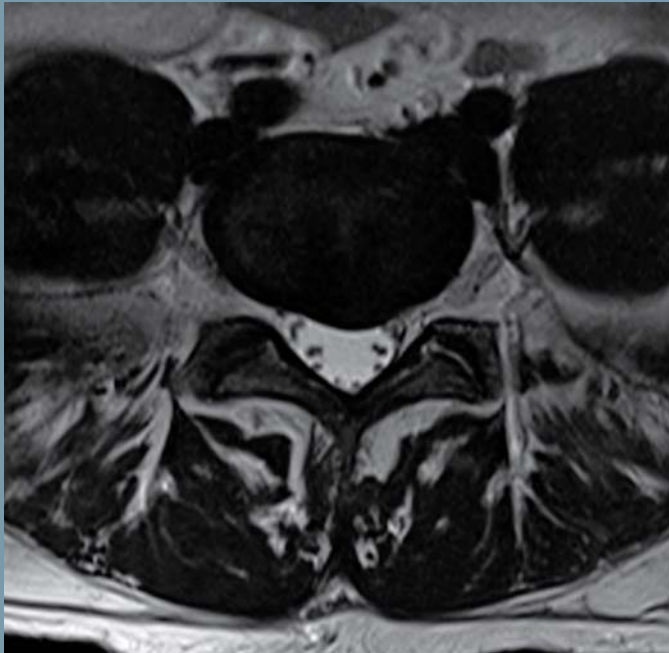
T1 TSE native and pc, 256 matrix, slices 14, TR 657, TE 11, **TA 1:54 min**
Shanghai City Children's Hospital, Shanghai, P.R. China

L-Spine

Experience a great level of detail regardless of the patient's condition or anatomy.

Perform excellent implant imaging with minimal image distortion.

T2 TSE Restore, GRAPPA 2, **384 matrix**, slices 15, TR 4800, TE 114, TA 2:20 min



T1 TSE, GRAPPA 2, **512 matrix**, slices 13, TR 566, TE 10, TA 2:26 min



T2 TSE Restore, GRAPPA 2, **512 matrix**, slices 13, TR 4000, TE 100, TA 2:20 min

Sanatorio Allende, Cordoba, Argentina



T1 TSE, 384 matrix, slices 11, TR 660, TE 11, TA 3:57 min
Suwon Radiology Clinic, Suwon, Republic Korea



T2 TSE Restore, **448 matrix**, slices 11, TR 3400, TE 110, TA 4:50 min
Suwon Radiology Clinic, Suwon, Republic Korea



T2 TSE Restore, 320 matrix, slices 6, TR 3160, TE 88, TA 3:45 min
Suwon Radiology Clinic, Suwon, Republic Korea



T1 TSE pc, 384 matrix, slices 11, TR 550, TE 11, TA 2:48 min
PLA No. 306 Hospital, Beijing, P.R. China



T1 TSE, **448 matrix**, slices 13, TR 649, TE 12, TA 3:38 min
Bupyeong Himchan Hospital, Incheon, Republic Korea



T2 TSE Restore, **448 matrix**, slices 13, TR 2800, TE 89, TA 3:31 min
Bupyeong Himchan Hospital, Incheon, Republic Korea



T2 TIRM Restore, **448 matrix**, slices 13, TR 4390, TE 87, TA 4:37 min, TI 150
Bupyeong Himchan Hospital, Incheon, Republic Korea



T2 TSE Restore, GRAPPA 2, 384 matrix, slices 11, TR 3500, TE 84, TA 2:55 min
BV TIM, Hanoi, Vietnam

Whole Spine

MAGNETOM ESSENZA enables excellent accuracy both local and total.

A scan range up to 140 cm without repositioning, seamless scan integration, and automated postprocessing allow unique whole-CNS and whole-spine imaging performance.



T1 TSE, 3 steps, SL 3.5 mm, slices 13, TR 570, TE 11



T2 TSE Restore, 3 steps, SL 3.5 mm, slices 13, TR 4000, TE 85

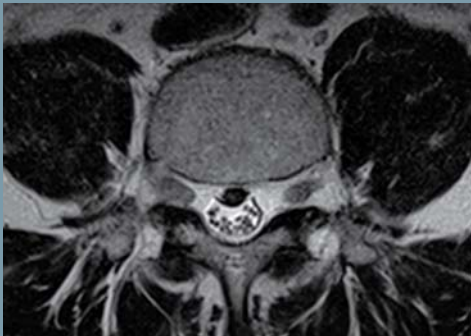
BV TIM, Hanoi, Vietnam



T1 TSE, 3 steps, **GRAPPA 2**, slices 11, TR 473, TE 11, **TA 3x1:21 min**
Hôpital Privé de la Seine St. Denis, Le Blanc-Mesnil, France



T2 TSE Restore, 3 steps, **GRAPPA 2**, slices 11, TR 2620, TE 73, **TA 3x1:21 min**
Hôpital Privé de la Seine St. Denis, Le Blanc-Mesnil, France



T2 TSE Restore, 320 matrix, slices 15, TR 3110, TE 83, **TA 2:26 min**
Hôpital Privé de la Seine St. Denis, Le Blanc-Mesnil, France



T1 TSE, 3 steps, slices 14, TR 660, TE 11, **TA 3x2:56 min**
Sonimed Diagnosticos, Camo Grande, Brazil



T2 TSE Restore, 3 steps, slices 14, TR 2170, TE 113, **TA 3x1:58 min**
Sonimed Diagnosticos, Camo Grande, Brazil



T2 TIRM, **GRAPPA 2**, slices 14, TR 4970, TE 86, **TI 155, TA 3x2:29 min**
Sonimed Diagnosticos, Camo Grande, Brazil

Abdomen

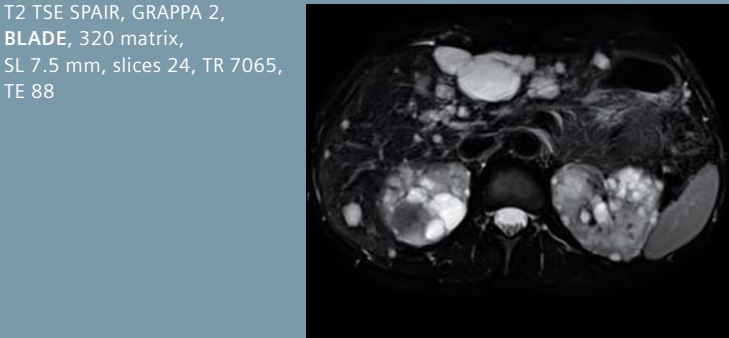
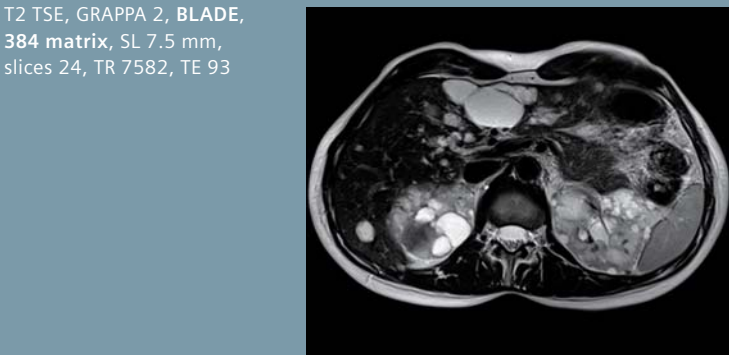
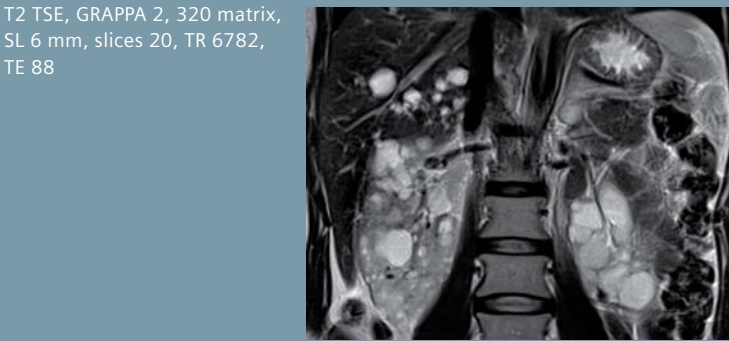
Discover the full potential for your abdomen examination. Apply any sequence, address your clinical questions, and handle challenging patient-condition with applications like BLADE or PACE.

The combination of Body Matrix and IsoCenter Matrix is an ideal combination for an easy patient setup and state-of-the-art imaging performance.

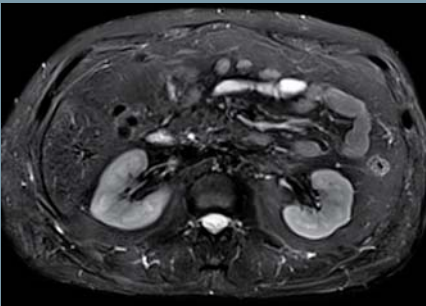
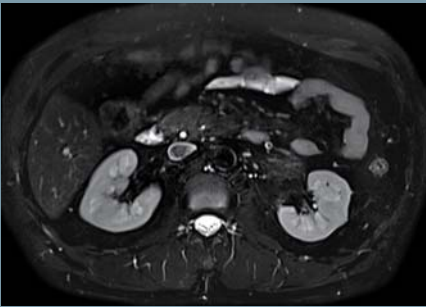
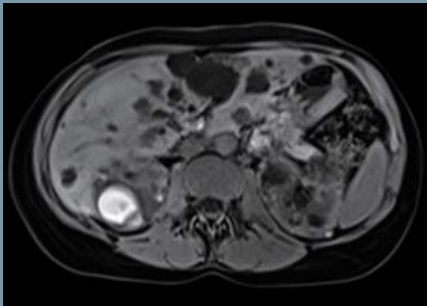
Body Matrix



Great image quality and fat saturation in 2D and 3D

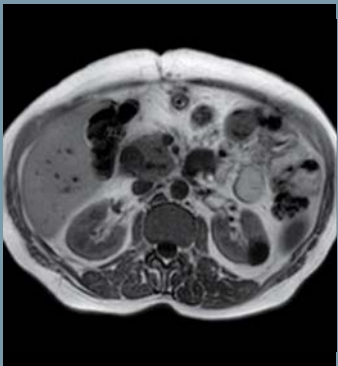
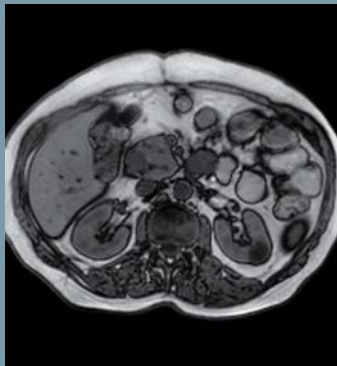
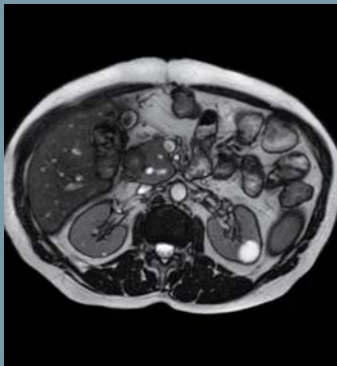


Sonimed Diagnosticos, Campo Grande, Brazil



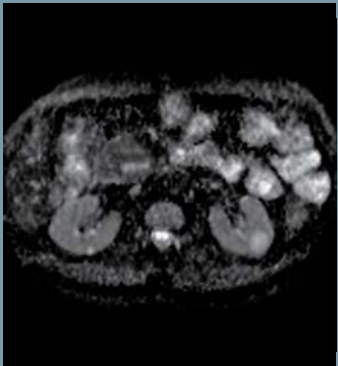
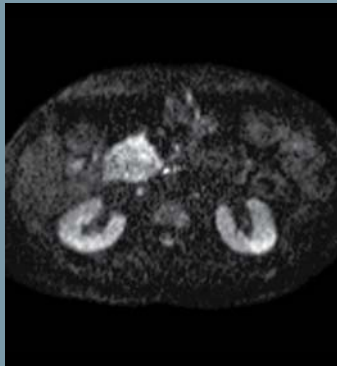
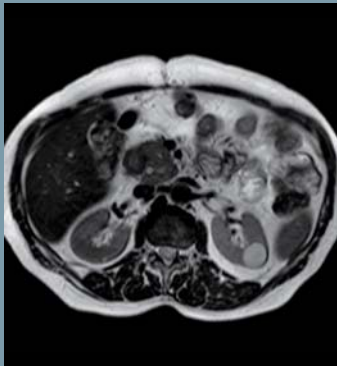
Comprehensive lesion evaluation including 3D VIBE & diffusion

T2 TrueFISP, GRAPPA 2, 256 matrix, SL 6 mm, slices 20, TR 3.7, TE 1.5



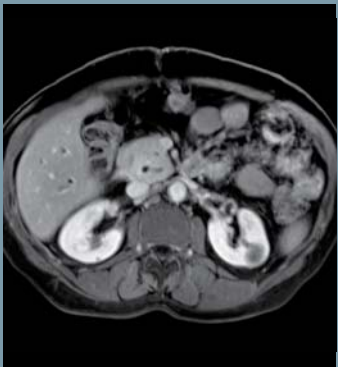
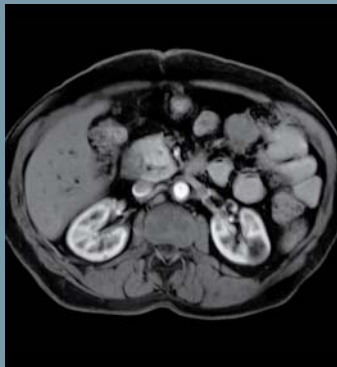
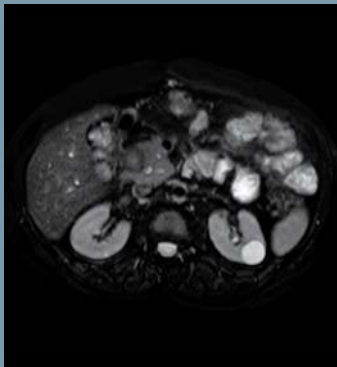
T1 FLASH opposed & in-phase, 256 matrix, SL 6.5 mm, slices 24, TR 113, TE 2.3/4.9, TA 19 s

T2 TSE, GRAPPA 2, 256 matrix, SL 6.5i, slices 25, TR 3650, TE 78, TA 22 s



Diffusion b800 & ADC, GRAPPA 2, 192 matrix, SL 6.5 mm, slices 17, TR 5206, TE 88

T2 TSE FatSat, GRAPPA 2, 256 matrix, SL 6.5, slices 25, TR 3480, TE 78, TA 21 s



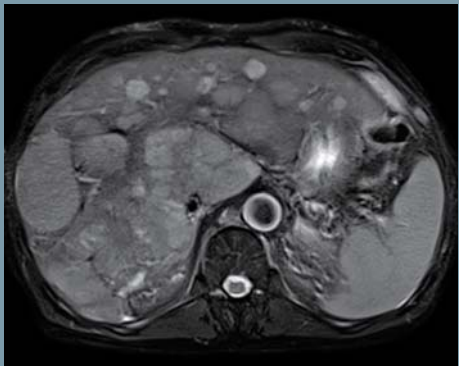
VIBE 3D, GRAPPA 2, 384 matrix, SL 4.0 mm (i), slices 64, TR 4.4, TE 2.5, TA 26 s

Hôpital Privé de la Seine St. Denis, Le Blanc-Mesnil, France

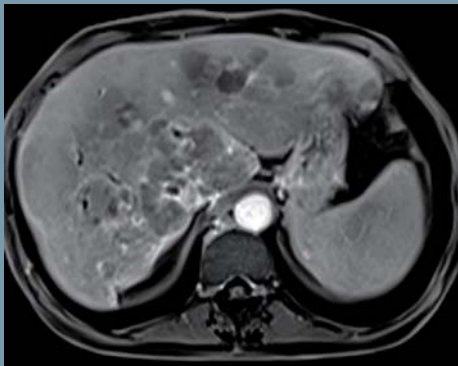
GRAPPA gives you the choice of faster acquisition or higher resolution imaging – for both triggered as well as breathhold sequences



T2 TSE, GRAPPA 2, **BLADE**, 320 matrix, SL 7.5 mm, slices 24, TR 5602, TE 93, TA 5:36 min
Sonimed Diagnosticos, Campo Grande, Brazil



T2 TSE SPAIR, GRAPPA 2, with **BLADE**, 320 matrix, SL 7.5 mm, slices 24, TR 3541, TE 88, TA 3:33 min
Sonimed Diagnosticos, Campo Grande, Brazil

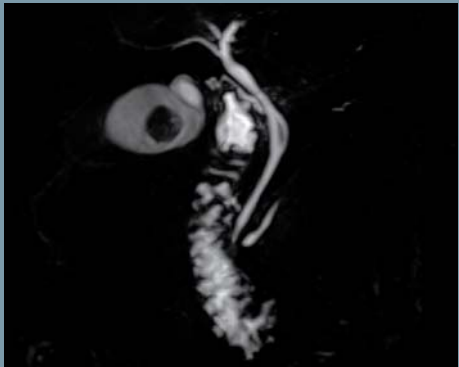


VIBE DIXON water, GRAPPA 2, 256 matrix, SL 3.5 mm (i), slices 64, TR 7.1, TE 2.4, TA 22 s
Sonimed Diagnosticos, Campo Grande, Brazil

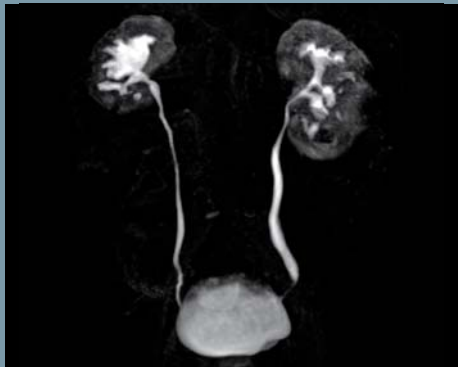
T2 HASTE, GRAPPA 2, 256 matrix, SL 6 mm, slices 24, TR 1000, TE 82
Sanatorio Allende, Cordoba, Argentina



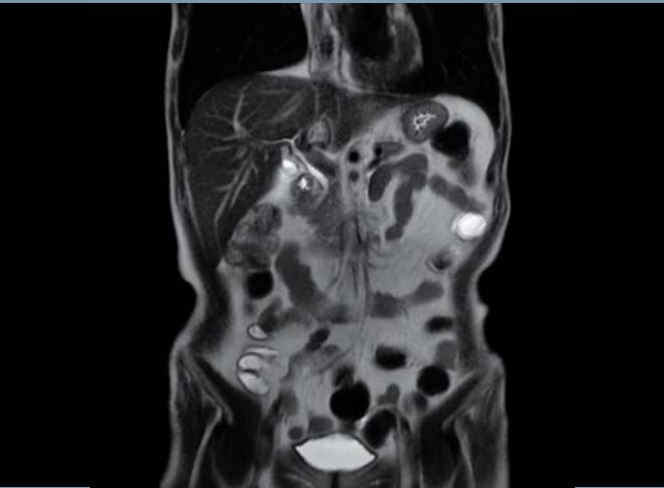
T2 3D TSE Restore, GRAPPA 2, 320 matrix, SL 1.2 mm, slices 40, TR 4739, TE 622, TA 4:11 min
Sanatorio Allende, Cordoba, Argentina



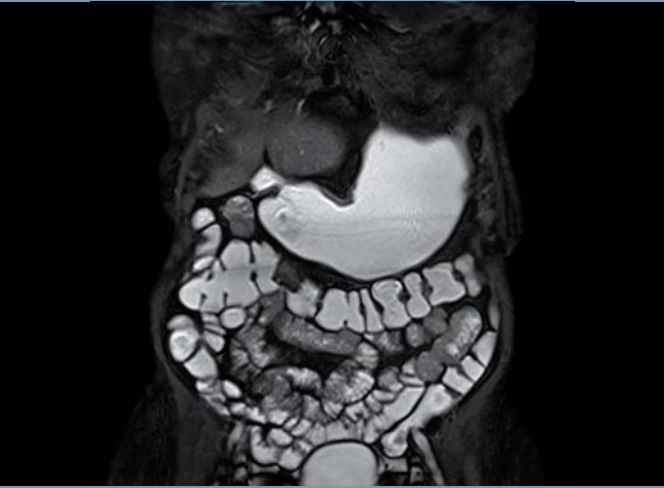
3D FLASH MRU, MIP, GRAPPA 2, 320 matrix, SL 1.3 mm, slices 96, TR 3.5, TE 1.4, TA 23 s
Hospital Santa Virginia, Sao Paulo, Brazil



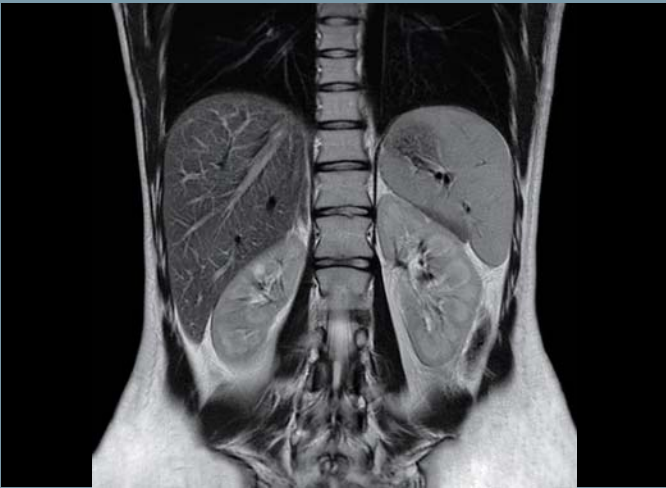
Whole abdomen –
easy and automated in two steps



T2 HASTE, 2 steps, GRAPPA 2, 256 matrix, SL 6 mm, slices 20, TR 900, TE 87, TA 2x0.44 s/slice
Delos Santos Medical Center, Quezon City, Philippines



TrueFISP, 2 steps, GRAPPA 2, 320 matrix, SL 4 mm, slices 35, TR 4.1, TE 1.6, TA 2x0.61 s/slice
Dg. S.R.O. MR Pracovisko, Rimavska Sobota, Slovakia



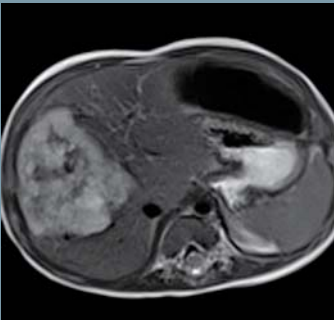
T2 TSE, 2 steps, GRAPPA 2, with BLADE, 384 matrix, SL 6 mm, slices 20, TR 4277.1, TE 93, TA 3:10 min
Hospital Santa Virginia, Sao Paulo, Brazil



T2 HASTE, 2 steps, GRAPPA 2, 256 matrix, SL 4 mm, slices 35, TR 1400, TE 80, TA 2x1.4 s/slice
Dg. S.R.O. MR Pracovisko, Rimavska Sobota, Slovakia

Pediatric abdominal imaging*

T2 TSE Restore, GRAPPA 2, BLADE, 320 matrix, SL 4 mm, slices 20, TR 2000, TE 68, TA 2:12 min
Shanghai City Children's Hospital, Shanghai, P.R. China



T2 TSE FatSat Restore, GRAPPA 2, 320 matrix, SL 4 mm, slices 20, TR 2000, TE 68, TA 2:12 min
Shanghai City Children's Hospital, Shanghai, P.R. China

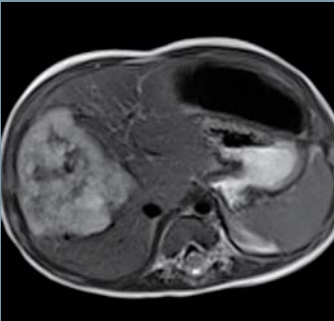


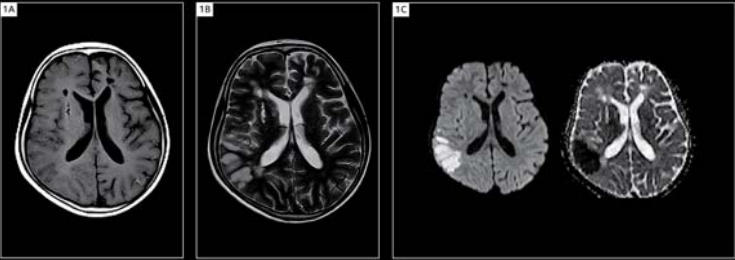
Image Gallery

Pediatric Imaging in Daily Routine with
MAGNETOM ESSENZA – a Pictorial Essay

Han Yan Qiao, MD
Shanghai Children's Hospital, Department of Diagnostic Radiology, Shanghai, China

Introduction
The Shanghai Children's Hospital is a maximum care centre, specialized solely in the needs of children. Founded in 1937, it was formerly known as the "Refugee Children Hospital of Shanghai". Among the founders of the hospital were the highly recognised Dr. Fu Wen Shou and Dr. Su Zu Fei. In 1953, the name was changed to "Shanghai Children's Hospital" and in 2003 it became affiliated to the Shanghai Jiaotong University. The Shanghai Children's Hospital provides all disciplines of pediatric healthcare. Its staff care for more than 1 million outpatients and – equipped with 300 beds – approximately 18,000 inpatients per year.

Background
This high number of patients treated per year also reflects that the Shanghai Children's Hospital is recognised as one of the leading institutions for pediatric healthcare within the greater area of Shanghai, if not within China. But it also demonstrates the growing need for imaging capacities, including MR imaging (MRI), within the hospital to cover all aspects of pediatric patient care. In 2009, the hospital decided therefore to expand its imaging department and add an MR unit. The requirements for this MR scanner are manifold; e.g. in the field of brain imaging, the availability of high quality diffusion-weighted imaging (DWI) as well as susceptibility-weighted imaging (SWI) for clinical routine is an important requirement. Flexible coil handling as well as high signal-to-noise ratio (SNR) and light-weight coil design are also important aspects, especially when imaging children. Such an MR system must also allow the scan of multiple



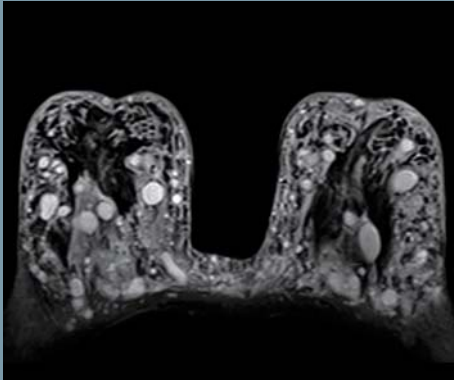
4 MAGNETOM Flash - 2/2011 - www.siemens.com/magnetom-world

More clinical cases on siemens.com/magnetom-world and in our MAGNETOM Flash special issue on pediatrics

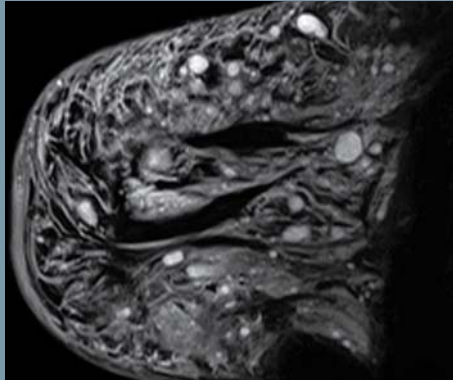
Breast Imaging

The number of breast MRI studies is increasing significantly. MAGNETOM ESSENZA is ready to meet the needs of your rising number of customers. With two dedicated breast coils for imaging purposes or biopsy guidance and the BreVis application solution, you have a sound and efficient basis for breast imaging.

Sentinelle Vanguard for Siemens



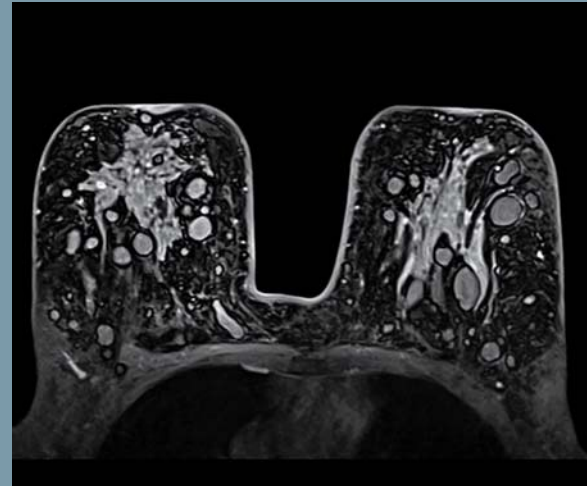
T2 TIRM water selected, 256 matrix, SL 4 mm, slices 38, TR 5810, TE 62, TA 2:02 min



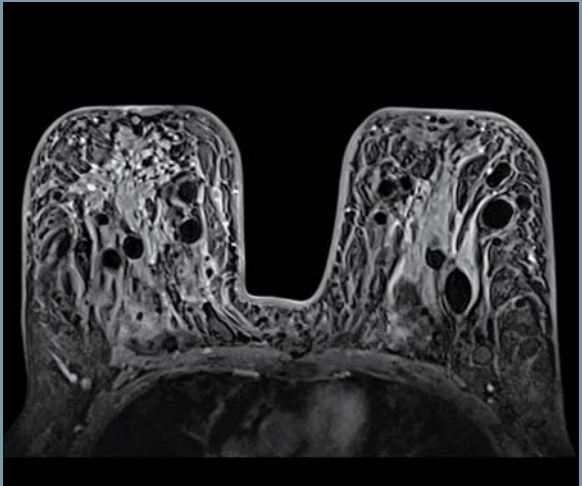
T2 Tirm water selected, 256 matrix, SL 4 mm, slices 60, TR 8830, TE 62, TI 170, TA 3:41 min



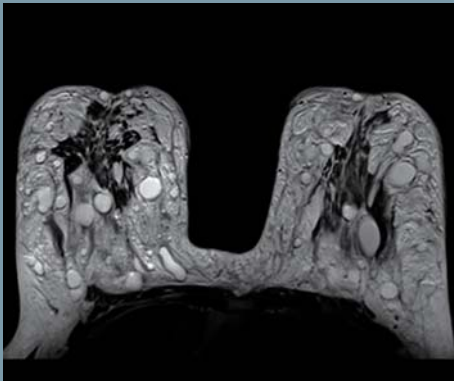
T2 TSE, GRAPPA 2, 320 matrix, SL 4 mm, slices 38, TR 4300, TE 104, TA 2:00 min



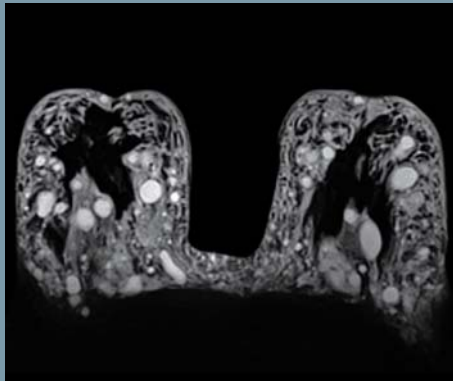
delVIEWS we, GRAPPA 2, 384 matrix, SL 0.9 mm (i), slices 192, TR 11.3, TE 5.1, TA 3:31 min



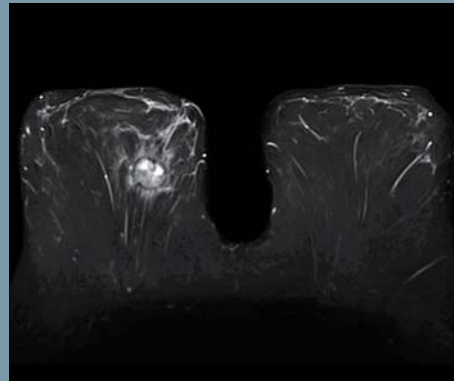
dynVIEWS FatSat we, 384 matrix, SL 1.3 mm (i), slices 144, TR 5.1, TE 2, TA 1:02 min



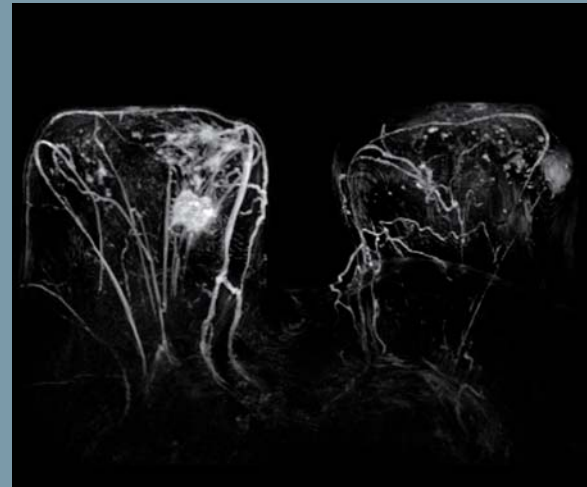
T1 3D FLASH, GRAPPA 2, **384 matrix**, SL 1.0 mm (i), slices 160, TR 7.8, TE 4.8, TA 1:38 min



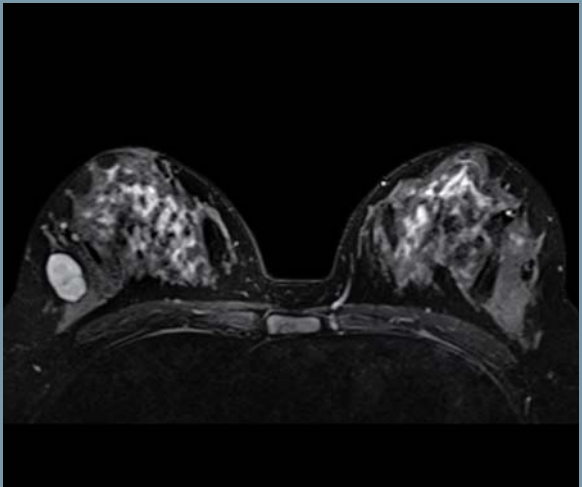
T2 TIRM water selected, GRAPPA 2, 256 matrix, TR 5520, SL 4 mm, slices 38, TE 71, TI 170, TA 3:08 min



T2 TIRM, GRAPPA 2, 320 matrix, SL 4 mm, slices 34, TR 6000, TE 62, TI 170, TA 3:06 min

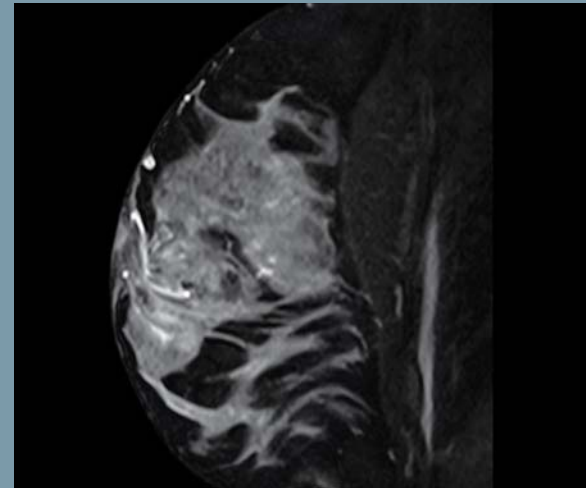


dynViews FatSat, GRAPPA 2, **384 matrix**, SL 1.0i, slices 160, TR 4.9, TE 1.9, TA 1:01 min

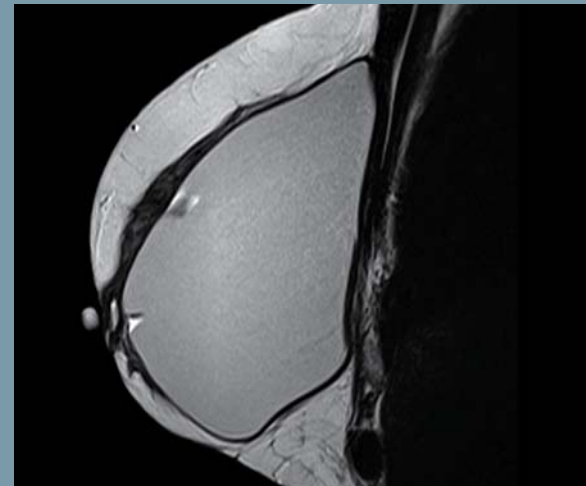


T2 TSE SPAIR, **384 matrix**, SL 4 mm, slices 32, TR 5300, TE 73, TA 3:22 min
PLA No. 306 Hospital, Beijing, P.R. China

Breast Matrix



T2 TSE SPAIR, GRAPPA 2, 256 matrix, SL 4 mm, slices 56, TR 3200, TE 61, TA 2:28 min

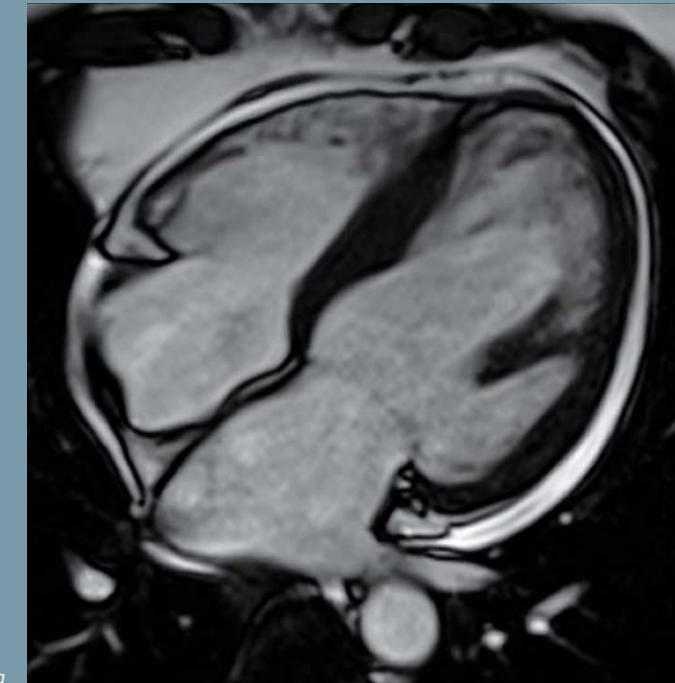


T2 TSE, GRAPPA 2, 320 matrix, SL 4 mm, slices 24, TR 3000, TE 99, TA 2:42 min
CDPI, Rio De Janeiro, Brazil

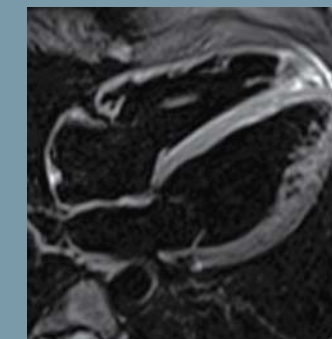
Cardiac Imaging

Whether your focus is on morphology or function. Your need for various image contrasts is taken care of with sequences like FLASH, True Fisp, and Dark Blood.

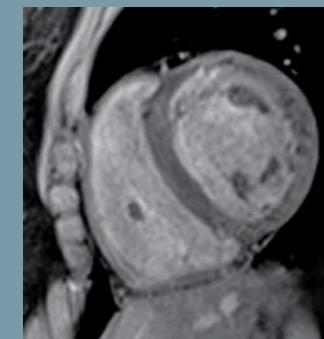
Benefit from high gradient power and Tim parallel imaging capabilities.



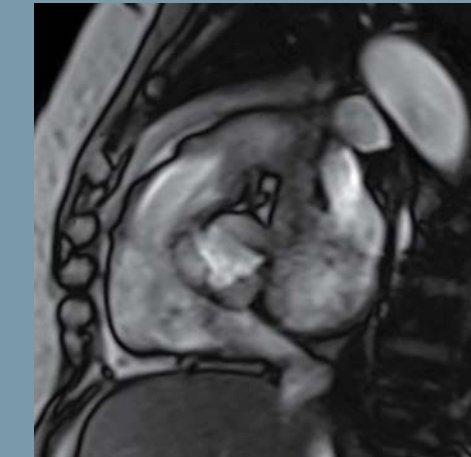
TrueFISP cine retro, GRAPPA 2, 192 matrix, SL 6 mm, TR 4.7, TE 1.6, TA 7.0s
PRO-VITA, Sofia, Bulgaria



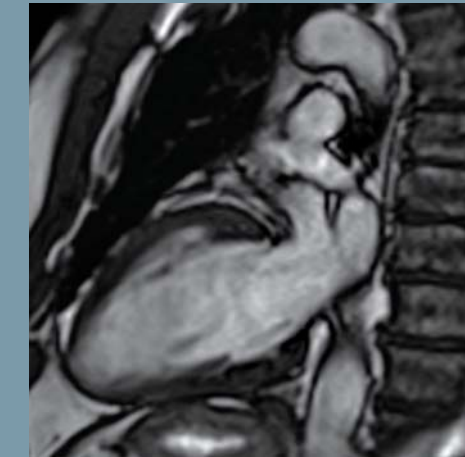
T2 TSE FatSat Dark Blood, GRAPPA 2, 256 matrix, SL 5 mm, slices 1, TR 2377, TE 69, TA 12 s



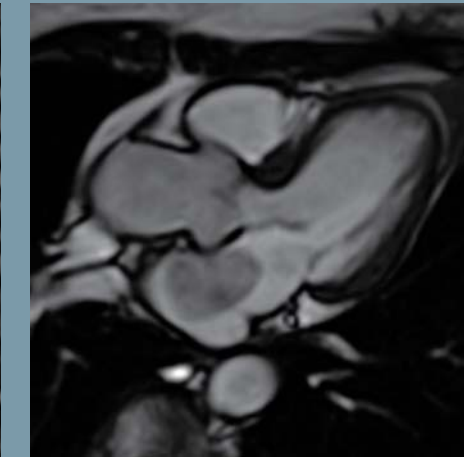
FLASH FatSat, 256 matrix, SL 5 mm, TR 118.8, TE 4.1, TA 19 s



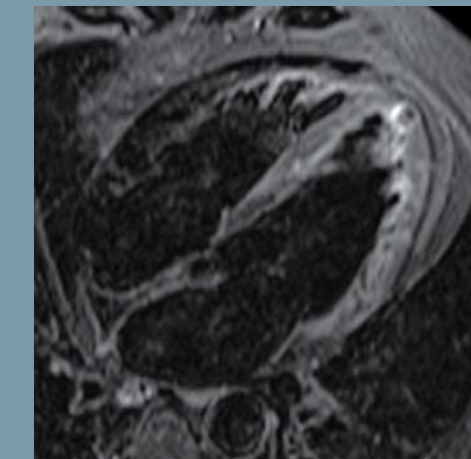
FLASH cine, 192 matrix, SL 5 mm, TR 51, TE 2.5, TA 31s
YanTai BeiHai Hospital, LongKou, P.R. China



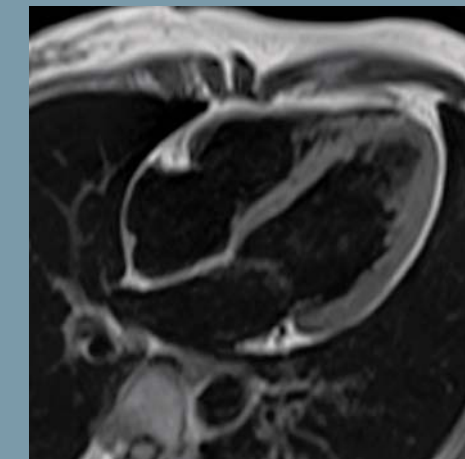
TrueFISP cine, 224 matrix, SL 7, TR 48, TE 1.4, TA 8s
Clínica Colón, Mar del Plata, Argentina



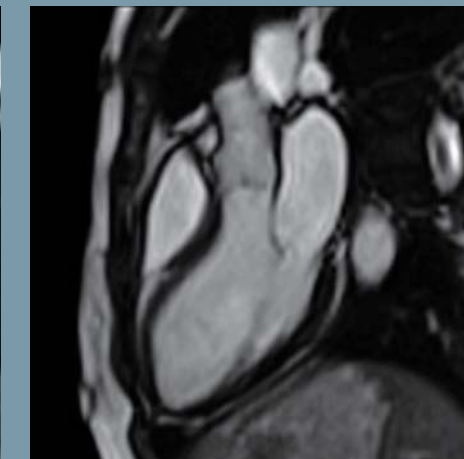
True FISP cine retro, 240 matrix, SL 7.5 mm, TR 59, TE 1.5
CDPI, Rio De Janeiro, Brazil



T2 TIRM Dark Blood, 256 matrix, SL 5 mm, TR 1697, TE 61, TI 170, TA 12 s
PLA No. 306 Hospital, Beijing, P.R. China

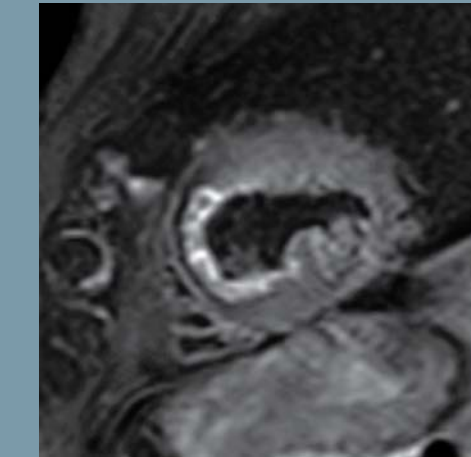


T1 TSE Dark Blood, GRAPPA 2, 256 matrix, SL 5 mm, TR 897.9, TE 34, TA 5.39 s
Shenzhen People's Hospital, Shenzhen, P.R. China

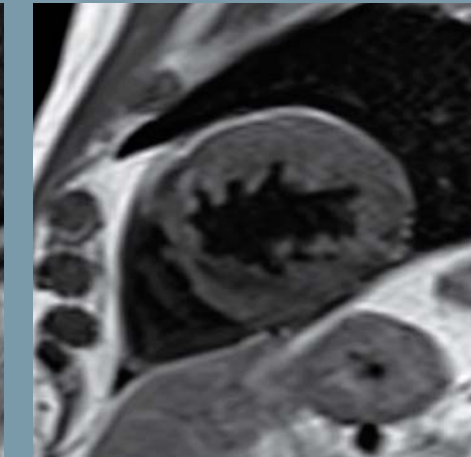


True FISP cine retro, 192 matrix, SL 6 mm, TR 43, TE 1.4
Shenzhen People's Hospital, Shenzhen, P.R. China

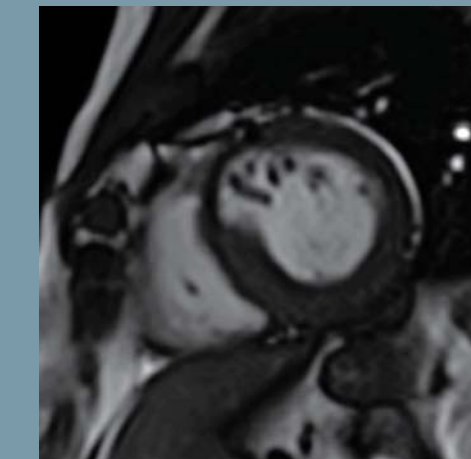
Comprehensive evaluation of myocardial function with contrast-enhanced CMR



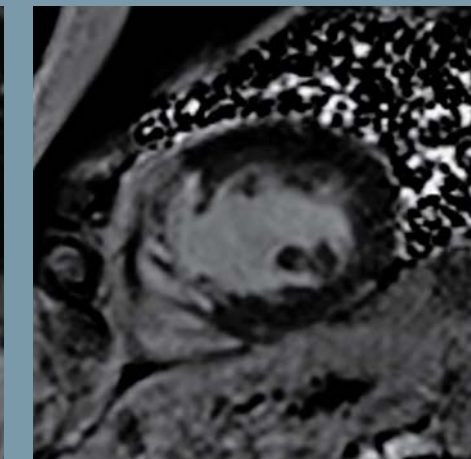
T2 TSE SPAIR Dark Blood, GRAPPA 2, 256 matrix, SL 5 mm, TR 2410, TE 92, TA 12s



T2 TSE Dark Blood, GRAPPA 2, 256 matrix, SL 5 mm, TR 2411, TE 125, TA 10s



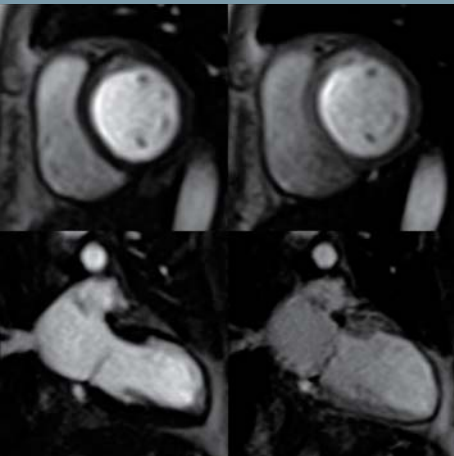
TrueFISP cine, GRAPPA 2, 308 matrix, SL 7 mm, TR 46.3, TE 1.4, TA 7s



FLASH IR PS recon pc, GRAPPA 2, 256 matrix, SL 8 mm, TR 700, TE 3.4, TI 380, TA 12s

Clínica Colón, Mar del Plata, Argentina

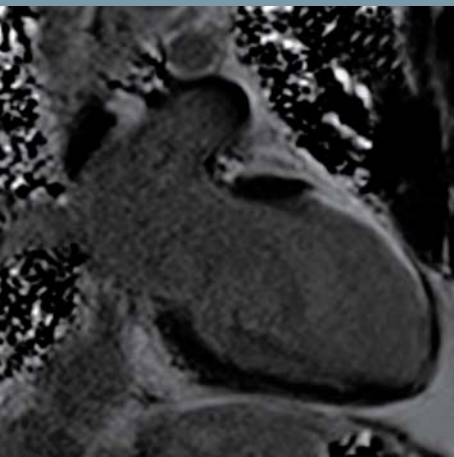
Excellent cardiac function evaluation with fast FLASH imaging sequences



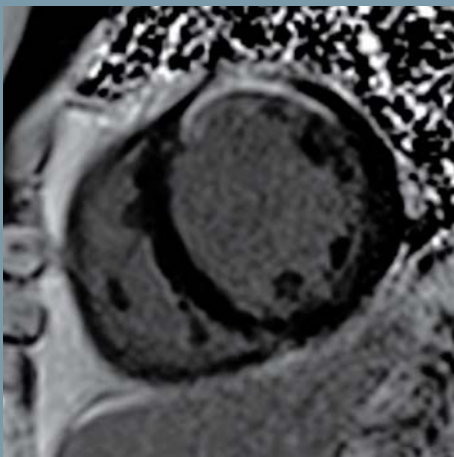
TurboFLASH pc, GRAPPA 2, 160 matrix, SL 10 mm, TR 167.5, TE 1.2, TI 100, TA 0.13 s/slice
Pro-Vita, Sofia, Bulgaria



3D FLASH ce-MRA, MIP, GRAPPA 2, **320 matrix**, **SL 1.8 mm (i)**, slices 64, TR 3.4, TE 1.2, TA 18 s
MVZ Dr. Neumaier & Kollegen, Kelheim, Germany



FLASH IR PS recon pc, GRAPPA 2, **256 matrix**, SL 8 mm, TR 800, TE 3.4, TI 380, TA 9.1 s
Pro-Vita, Sofia, Bulgaria



FLASH IR PS recon pc, GRAPPA 2, **256 matrix**, SL 8 mm, TR 800, TE 3.4, TI 370, TA 8.9 s
Pro-Vita, Sofia, Bulgaria

MR Angiography

With or without contrast is up to you.
MAGNETOM ESSENZA offers both!

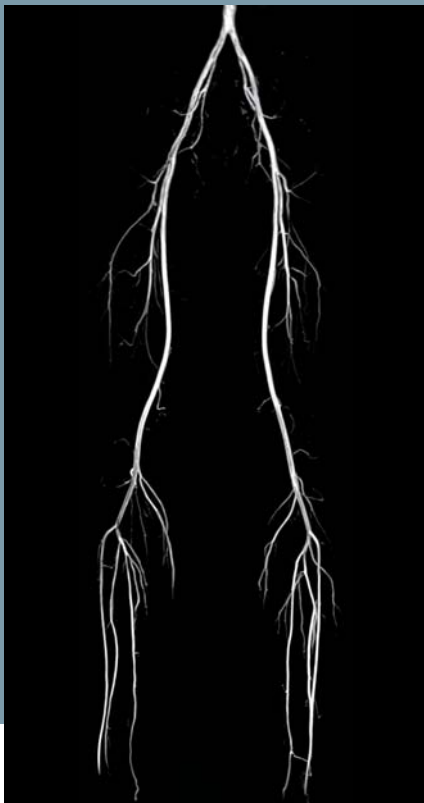
PA Matrix



syngo NATIVE – excellent image quality without contrast agent usage



3D TrueFISP FatSat VRT, GRAPPA 2, 256 matrix, SL 1.1 mm, slices 64, TR 1400, TE 1.6
Fukuoka Shin-Mizumaki Hospital, Mizumaki-town, Fukuoka, Japan



3D SPACE Restore MIP, 4 steps, GRAPPA 2, 320 matrix, SL 2.0 mm (i), slices 64, TR 930, TE 48
PLA No. 306 Hospital, Beijing, P.R. China

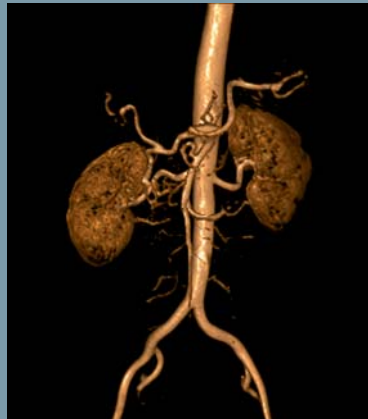
Excellent, fast, contrast-enhanced angiography, enabled by GRAPPA



3D FLASH ce-MRA, MIP, GRAPPA 2, **384 matrix**, SL 1.2 mm (i), slices 80, TR 3.6, TE 1.4, TA 22 s
ESKE S.R.L., Lima, Peru



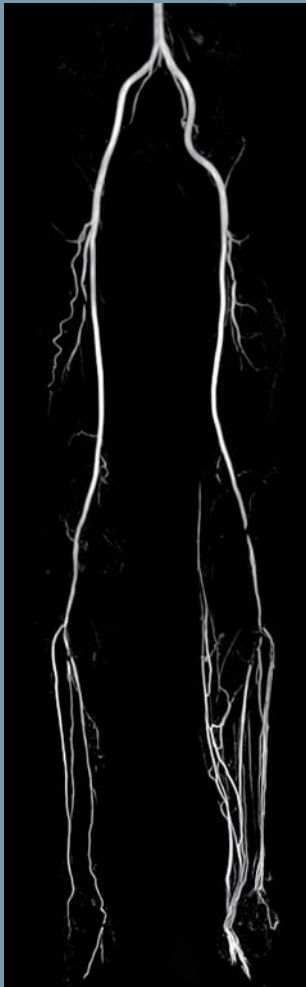
3D FLASH ce-MRA, GRAPPA 2, 320 matrix, SL 1.3 mm, slices 80, TR 3.9, TE 1.5, TA 19 s
Northside/Holly Springs Imaging, Holly Springs, GA, USA



3D FLASH ce-MRA, VRT, GRAPPA 2, 320 matrix, SL 1.4 mm (i), slices 72, TR 3.5, TE 1.2, TA 18 s
Baptist Memorial Hospital Huntingdon, Huntingdon, TN, USA



3D FLASH ce-MRA, MIP, GRAPPA 2, 320 matrix, SL 1.2 mm, slices 64, TR 3.2, TE 1.2, **TA 65 s**
Hospital La Moraleja, Madrid, Spain



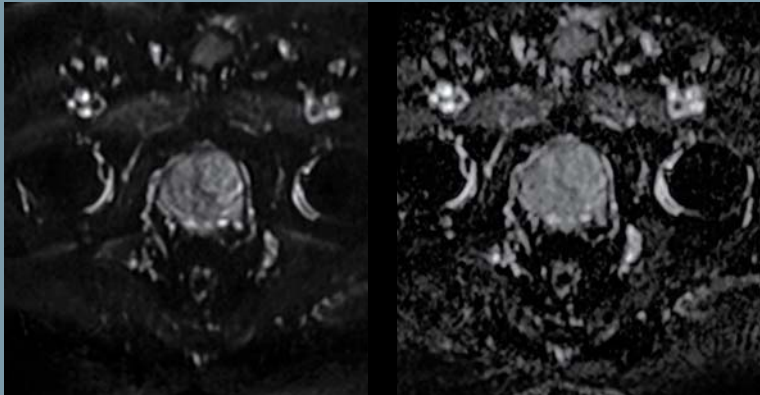
3D FLASH ce-MRA, MIP, GRAPPA 2, 320 matrix, SL 1.2 mm, slices 64, TR 3.2, TE 1.2, **TA 65 s**
Praxis am Himmelsberg, Zweibruecken, Germany



3D FLASH ce-MRA, MIP, GRAPPA 2, 320 matrix, SL 1.2 mm, slices 64, TR 3.1, TE 1.1, **TA 65 s**
PLA No. 306 Hospital, Beijing, P.R. China

Pelvis Imaging

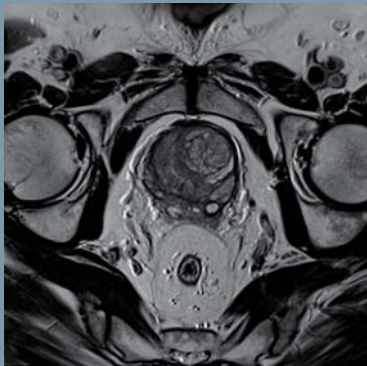
Perform extensive pelvis imaging with MAGNETOM ESSENZA. Sub-millimeter resolution, different FatSat techniques, iPAT, or DWI (Diffusion weighted imaging) give you a wide range of possibilities.



Diffusion b0 & ADC, FatSat, GRAPPA 2, 128 matrix, SL 4 mm, slices 15, TR 2400, TE 95

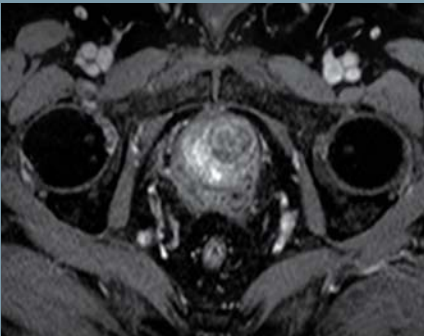


T2 TSE Restore, 256 matrix, SL 3 mm, slices 20, TR 2980, TE 68, TA 3:38 min

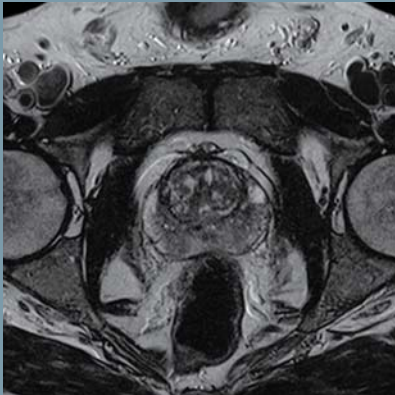


T2 TSE, 256 matrix, SL 3 mm, slices 20, TR 3740, TE 87, TA 4:15 min

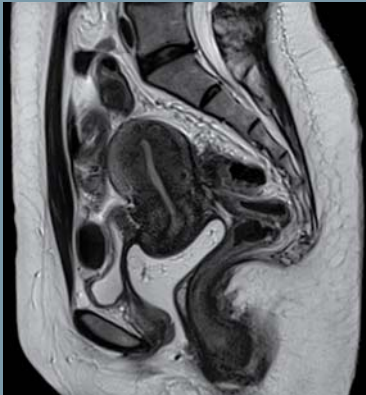
T1 FLASH FatSat, GRAPPA 2, 192 matrix, SL 3.5 mm, slices 15, TR 179, TE 3.3, TA 16 s



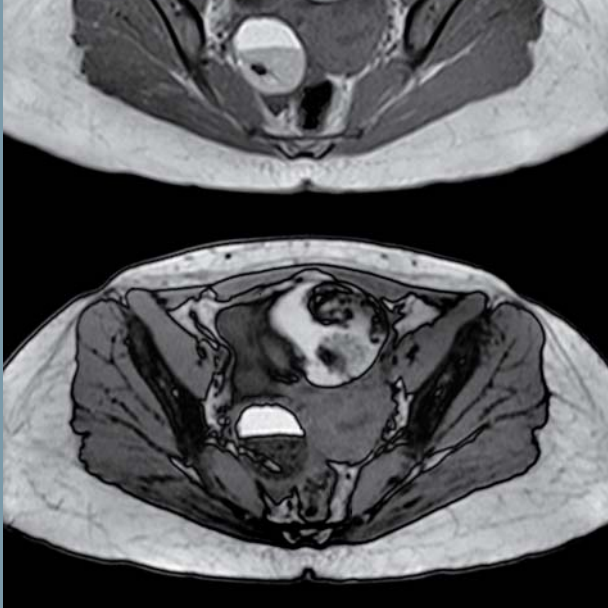
Hôpital Privé de la Seine St. Denis, Le Blanc-Mesnil, France



T2 TSE, TR 6340, 256 matrix, SL 3 mm, slices 20, TE 148, TA 2:26 min
ESKE S.R.L., Lima, Peru

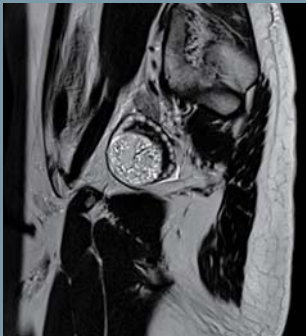


T2 TSE, **GRAPPA 2**, **BLADE**, 256 matrix, TR 3030, SL 4 mm, slices 24, TE 119, TA 2:26 min
CDPI, Rio De Janeiro, Brazil

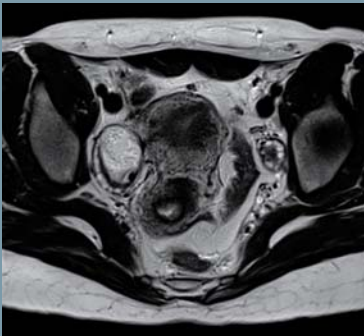


T1 FLASH inphase & opposed phase, 256 matrix, SL 3.5 mm, slices 30, TR 100, TE 5/3.5, TA3x17 s
CDPI, Rio De Janeiro, Brazil

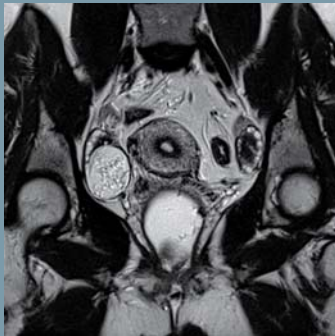
T2 TSE, **GRAPPA 2**, **BLADE**, 256 matrix, SL 3.5 mm, slices 30, TR 3620, TE 119, TA 2:54 min
Sanatorio Allende, Cordoba, Argentina



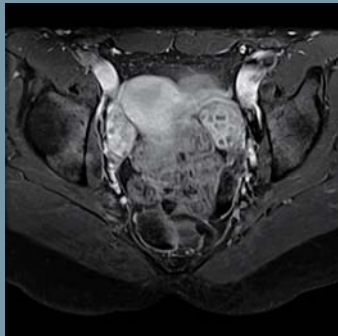
T2 TSE, **GRAPPA 2**, with **BLADE**, 256 matrix, SL 4.5 mm, slices 30, TR 3600, TE 111, TA 2:24 min
Sanatorio Allende, Cordoba, Argentina



T2 TSE, **GRAPPA 2**, **BLADE**, 256 matrix, SL 3, slices 30, TR 3600, TE 118, TA 2:50 min
Sanatorio Allende, Cordoba, Argentina



T1 TSE **DIXON** water, 256 matrix, SL 6 mm, slices 14, TR 541, TE 11, TA 3:27 min
Praxis am Himmelsberg, Zweibrücken



MSK Shoulder

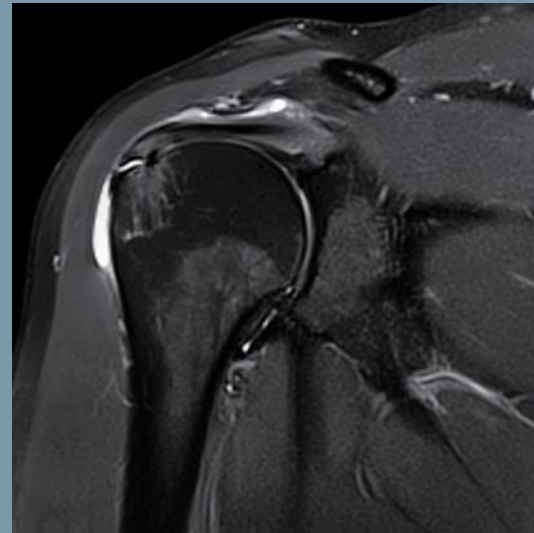
The Focus Shoulder Array is very comfortable for the patient while providing high-end shoulder imaging for routine and advanced applications like VIBE 3D.

- 6 element design for high SNR & iPAT
- Easy and flexible adaption to narrow and wide shoulders
- Dedicated shim functionality for highest homogeneity and excellent FatSat

Focus Shoulder Array



PD TSE Restore
FatSat, GRAPPA 2,
256 matrix,
SL 3.5mm,
slices 16, TR 2880,
TE 46, TA 3:05 min



T1 TSE, GRAPPA 2,
320 matrix,
SL 3.5mm,
slices 16, TR 450,
TE 13, TA 2:04 min

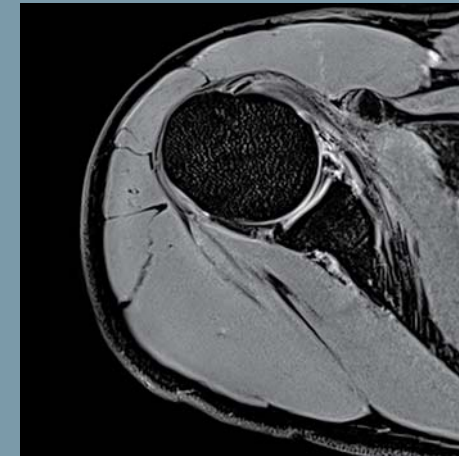


Centre d'Imagerie de Franconville, Franconville La Garenne, France

High-quality imaging with or without FatSat, 2D, 3D, fast or high resolution



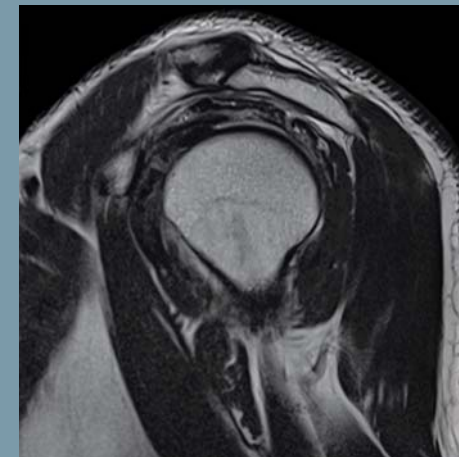
T1 TSE FatSat, GRAPPA 2, 320 matrix, SL 3 mm,
slices 20, TR 678, TE 10, TA 2:52 min
CEDIB, Barretos, Brazil



VIBE 3D **DIXON** water, GRAPPA 2, 320 matrix,
SL 1.5 mm (i), slices 64, TR 20, TE 7.1,
TA 4:11 min
CEDIB, Barretos, Brazil



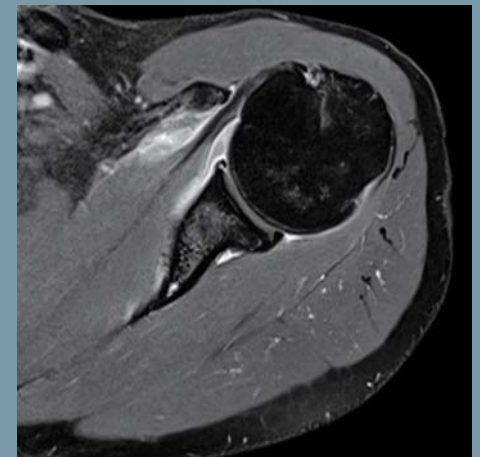
T2 Medic, GRAPPA 2, 320 matrix, SL 3 mm,
slices 21, TR 554, TE 24, TA 3:10 min
MVZ Dr. Neumaier & Kollegen, Kelheim, Germany



T2 TSE, GRAPPA 2, **384 matrix**, SL 3 mm,
slices 20, TR 3570, TE 85, TA 1:58 min
Bupyeong Himchan Hospital, Incheon, Republic Korea



T1 TSE, **384 matrix**, SL 3 mm, slices 19, TR 554,
TE 15, TA 2:58 min
Bupyeong Himchan Hospital, Incheon, Republic Korea



T1 TSE FatSat, GRAPPA 2, **384 matrix**, SL 3 mm,
slices 24, TR 700, TE 14, TA 3:27 min
Praxis in der Sportklinik Hellersen, Luedenscheid, Germany

MSK Elbow

For excellent elbow imaging, you need the right tools. MAGNETOM ESSENZA delivers great image results of the elbow anatomy, giving you diagnostic confidence.

Flex Coil small and large



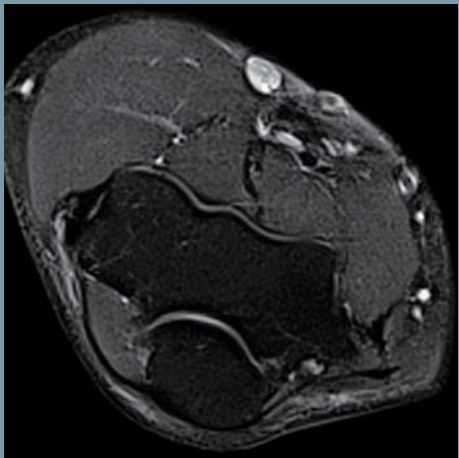
T1 TSE, **320 matrix**, SL 3 mm, slices 16, TR 612, TE 12, TA 1:57 min



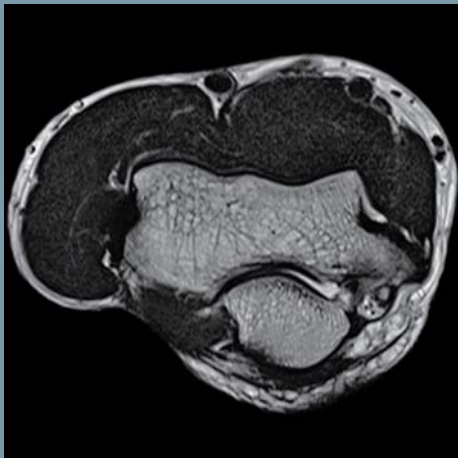
PD TSE Restore SPAIR, 256 matrix, SL 3 mm, slices 16, TR 2500, TE 25, TA 2:33 min



PD TSE FatSat, **BLADE**, 192 matrix, SL 3.5 mm, slices 30, TR 4240, TE 64, TA 4:15 min

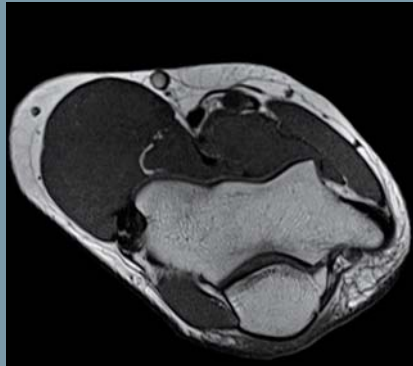


PD TSE FatSat, 192 matrix, SL 3.5 mm, slices 30, TR 4240, TE 64, TA 4:15 min

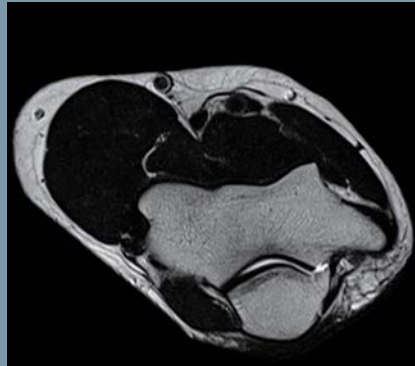


T2 TSE, **320 matrix**, SL 3 mm, slices 19, TR 4000, TE 75, TA 4:29 min
BV TIM, Hanoi, Vietnam

T1 TSE, **384 matrix**, SL 3 mm, slices 20, TR 555, TE 14, TA 2:30 min



T2 TSE Restore, **384 matrix**, SL 3 mm, slices 20, TR 4530, TE 84, TA 2:30 min



Sanatorio Allende, Cordoba, Argentina



VIBE 3D water excitation, 256 matrix, SL 0.9 mm (i), slices 80, TR 17, TE 7.1, TA 4:49 min



T1 TSE, **384 matrix**, SL 3 mm, slices 15, TR 400, TE 12, TA 3:04 min
Hospital Santa Virginia, Sao Paulo, Brazil



T1 TSE, 320 matrix, **SL 2.5 mm**, slices 29, TR 577, TE 16, TA 3:57 min
Radiologie am Harras, Munich, Germany

MSK Hand/Wrist

MAGNETOM ESSENZA has multiple solutions for comprehensive and efficient hand/wrist imaging.

- The standard small Flex Coil for sub mm³ voxel sizes for detailed wrist and finger images at reasonable acquisition times.
- The dedicated 8-Channel Wrist Coil for an even higher signal-to-noise ratio (SNR) and advanced iPAT performance.

Wrist Coil



T1 TSE, 320 matrix, SL 2.7 mm, slices 12, TR 520, TE 14, TA 2:23 min



PD TSE Restore FatSat, 320 matrix, SL 2.7 mm, slices 12, TR 2060, TE 30, TA 3:10 min



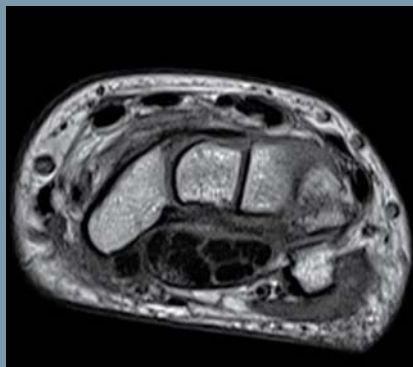
PD TSE FatSat, 320 matrix, SL 2 mm, slices 10, TR 3360, TE 28, TA 4:46 min
Bupyeong Himchan Hospital, Incheon, Republic Korea



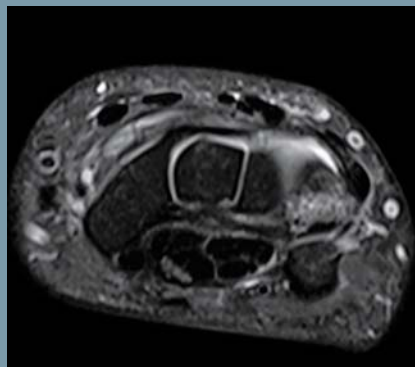
T2 TSE, 320 matrix, SL 2.5 mm, slices 14, TR 3300, TE 89, TA 3:09 min
Bupyeong Himchan Hospital, Incheon, Republic Korea



T1 TSE, GRAPPA 2, 384 matrix, SL 3 mm, slices 21, TR 410, TE 18, TA 4:24 min
Bupyeong Himchan Hospital, Incheon, Republic Korea



T1 TSE, 320 matrix, SL 3 mm, slices 18, TR 567, TE 14, TA 2:14 min

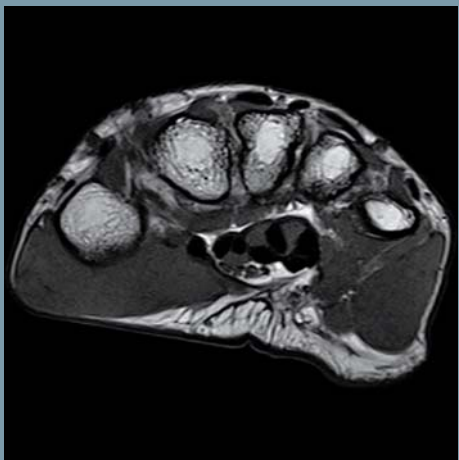


PD TSE Restore FatSat, 256 matrix, SL 3 mm, slices 18, TR 2980, TE 42, TA 2:56 min

Sonimed Diagnosticos, Campo Grande, Brazil



T1 TSE, 320 matrix, SL 2 mm, slices 12, TR 500, TE 14, TA 3:07 min
Sonimed Diagnosticos, Campo Grande, Brazil



T1 TSE, 320 matrix, SL 3 mm, slices 29, TR 619, TE 14, TA 2:36 min
De Los Santos Medical Center, Quezon City, Philippines

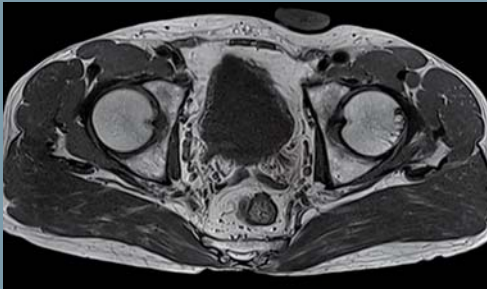


3D Medic water excitation, 384 matrix, SL 1.51.5 mm (i), slices 24, TR 46, TE 26, TA 4:18 min
Suwon Radiology Clinic, Suwon, Republic Korea

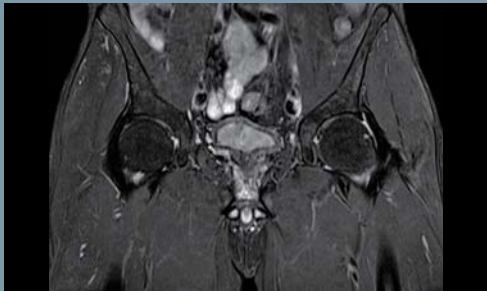
MSK Hip

Whether you are imaging a single joint or both joints: Using the large Flex or Body Matrix coil in combination with the IsoCenter Matrix is an ideal combination for excellent results.

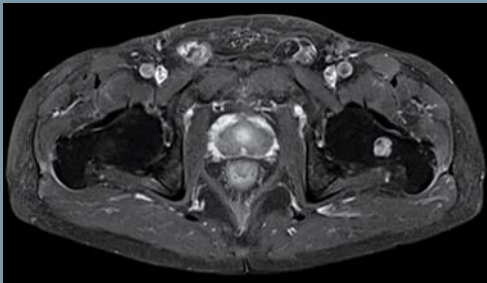
T1 TSE, GRAPPA 2,
448 matrix, SL 3 mm,
slices 19, TR 560, TE 28,
TA 2:08 min
*Bupyeong Himchan
Hospital, Incheon,
Republic Korea*



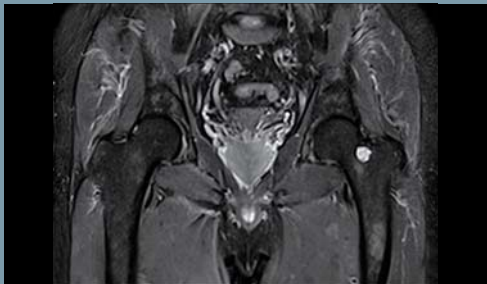
PD TSE DIXON water,
GRAPPA 2, **384 matrix**,
SL 4 mm, slices 20,
TR 2560, TE 51,
TA 2:42 min
*Bupyeong Himchan
Hospital, Incheon,
Republic Korea*



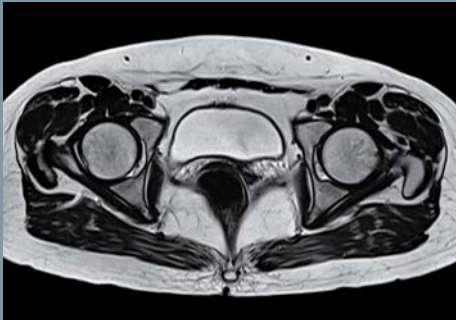
T1 TSE SPAIR, GRAPPA 2,
384 matrix, SL 6 mm,
slices 20, TR 528,
TE 9.6, TA 2:25 min
*Radiologie am Harras,
Munich, Germany*



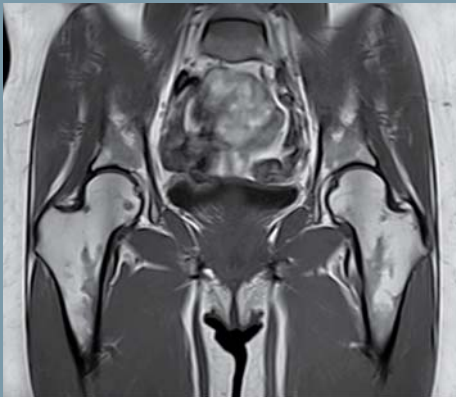
T2 TIRM, GRAPPA 2,
256 matrix, SL 6 mm,
slices 24, TR 2970,
TE 27, TI 160,
TA 3:01 min
*Radiologie am Harras,
Munich, Germany*



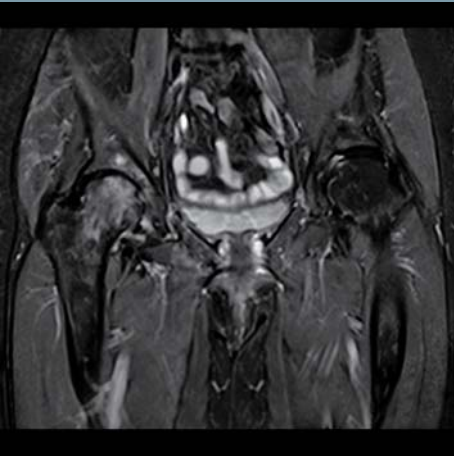
PD TSE, GRAPPA 2,
320 matrix, SL 3 mm,
slices 30, TR 3200,
TE 32, TA 4:13 min
*Chippewa Valley
Orthopedics,
Eau Claire, WI, USA*



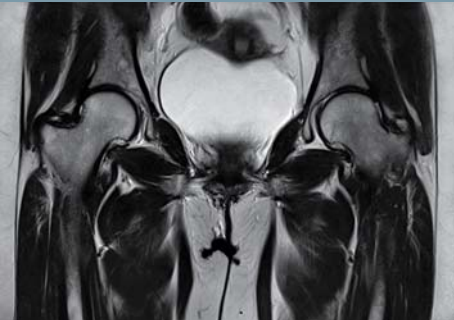
T2 TSE Restore,
GRAPPA 2, **448 matrix**,
SL 4 mm, slices 20,
TR 5400, TE 104,
TA 1:43 min
ESKE S.R.L., Lima, Peru



T1 TSE, 320 matrix,
SL 4 mm, slices 35,
TR 655, TE 8.4,
TA 4:10 min



T2 TIRM, GRAPPA 2,
256 matrix, SL 6 mm,
slices 23, TR 2970,
TE 27, TI 160,
TA 3:01 min
*Radiologie am Harras,
Munich, Germany*



T2 TSE, GRAPPA 2,
512 matrix, SL 5.5 mm,
slices 19, TR 5980,
TE 96, TI 160,
TA 4:06 min
*MVZ Dr. Neumaier &
Kollegen,
Kelheim, Germany*



T1 TSE, GRAPPA 2,
512 matrix, SL 3 mm,
slices 21, TR 982, TE 13,
TA 3:22 min
*MVZ Dr. Neumaier &
Kollegen,
Kelheim, Germany*

MSK Knee

Achieve outstanding image quality in your knee examinations using MAGNETOM ESSENZA's standard flex and extremity coils.

Experience features like advanced 3D imaging and excellent FatSat for any contrast and use the advanced applications like MapIt for quantitative analysis.

Optimize your workflow with the advanced handling and imaging capabilities of the 8- or 14-channel* extremity coil, providing high signal-to-noise ratio.

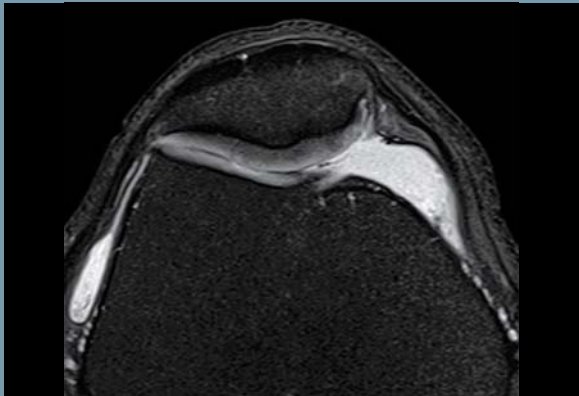
Extremity Matrix



T2 Medic, GRAPPA 2, 224x320 matrix, SL 3.5, slices 24, TR 879, TE 23, TA 2:38 min



PD TSE FatSat, GRAPPA 2, 179x256 matrix, SL 3, slices 15, TR 2670, TE 42, TA 2:38 min



T1 TSE, GRAPPA 2, 230x384 matrix, SL 3.5, slices 24, TR 540, TE 12, TA 1:56 min



CEDIB, Barretos, Brazil



PD TSE FatSat, 256 matrix, SL 3 mm, slices 25, TR 3200, TE 32, TA 3:03 min
Radiologica Wola, Warsaw, Poland



T1 TSE, 256 matrix, SL 3mm, slices 25, TR 506, TE 10, TA 2:34 min
Radiologica Wola, Warsaw, Poland

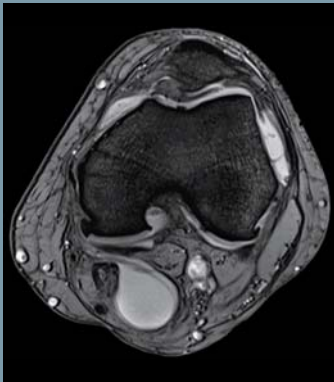


3D PD SPACE Restore SPAIR, GRAPPA 2, 256 matrix, SL 0.7 mm (i), slices 144, TR 1000, TE 49
Hôpital Privé de la Seine St. Denis, Le Blanc-Mesnil, France



PD TSE FatSat, 320 matrix TR 3612, TE 25, SL 3 mm, slices 29, TA 3:44 min
Suwon Radiology Clinic, Suwon, Republic Korea

T2 Medic, GRAPPA 2, 320 matrix, SL 3 mm, slices 29, TR 724, TE 24, TA 3:18 min
MVZ Dr. Neumaier & Kollegen, Kelheim, Germany



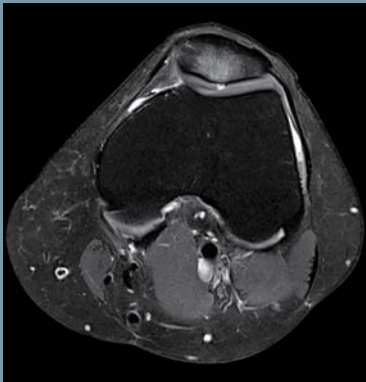
T1 SE, 448 matrix, SL 3 mm, slices 19, TR 479, TE 15, TA 3:05 min
MVZ Dr. Neumaier & Kollegen, Kelheim, Germany



T2 TSE, GRAPPA 2, 320 matrix, SL 4 mm, slices 15, TR 4000, TE 81, TA 1:08 min
PLA No. 306 Hospital, Beijing, P.R. China



PD TSE FatSat, 320 matrix, SL 3 mm, slices 25, TR 3200, TE 42, TA 4:04 min
Imaging Healthcare Specialist, Chula Vista, CA, USA



MSK

Foot/Ankle

While the standard flex coil is a comprehensive solution for routine applications, the dedicated foot/ankle coil allows for a faster patient setup and brings SNR and iPAT performance to the next level.

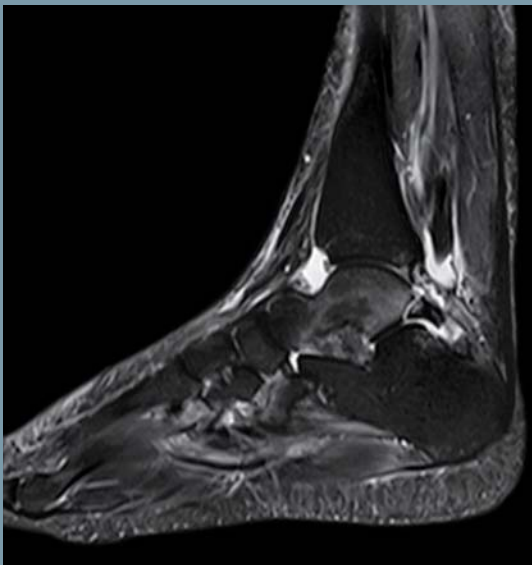
Foot/Ankle Coil



T1 TSE, 320 matrix, SL 3 mm, slices 25, TR 512, TE 11, TA 3:16 min



T2 TIRM, GRAPPA 2, 256 matrix, SL 3 mm, slices 25, TR 4000, TE 44, TI 160, TA 3:00 min



Northside/Holly Springs Imaging, Holly Springs, GA, USA



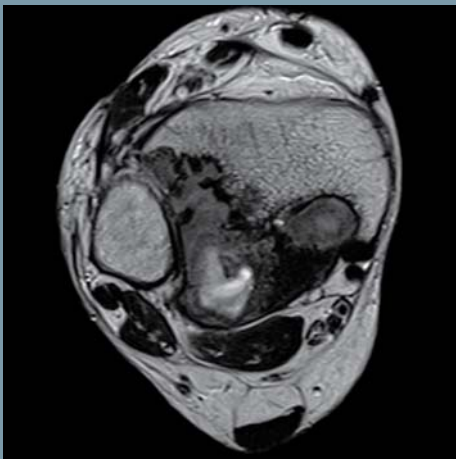
T1 TSE, GRAPPA 2, 320 matrix, SL 3 mm, slices 20, TR 617, TE 9.9, TA 2:16 min
Centre d'Imagerie de Franconville, Franconville La Garenne, France



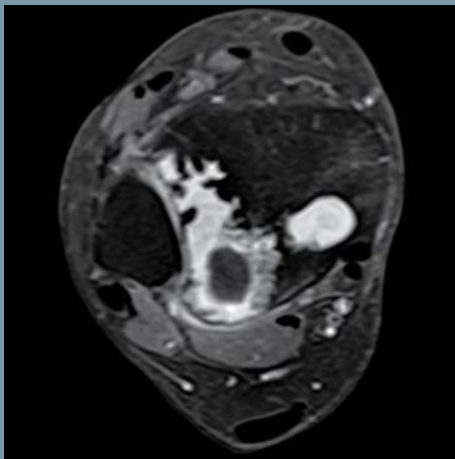
PD 3D SPACE Restore, GRAPPA 2, 320 matrix, SL 0.6 mm (i), slices 120, TR 1100, TE 34



T2 TIRM, 256 matrix, SL 3.5, slices 19, TR 4750, TE 42, TI 150, TA 3:44 min
Clínica Colón, Mar del Plata, Argentina



T2 TSE, 384 matrix, SL 3.5, slices 30, TR 3500, TE 120, TA 2:20 min
CDPI, Rio De Janeiro, Brazil



T1 TSE DIXON water, GRAPPA 2, 256 matrix, SL 3.5, slices 30, TR 400, TE 13, TA 3:36 min
CDPI, Rio De Janeiro, Brazil



T1 TSE, 448 matrix, SL 3, slices 23, TR 590, TE 13, TA 4:24 min
BV TIM, Hanoi, Vietnam