Table of contents

\\MR Physics 2 - AAT\Upper Limb\Shoulder\AAT options\left_localizer *

TA: 30 sec Coil Selection: Auto Voxel Size: 0.5×0.5×6.0 mm³ Acc:: None Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	6
Distance Factor	50 %
Position	L123.7 A11.9 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Slice Group	2
Slices	6
Distance Factor	50 %
Position	L123.7 A11.9 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Slice Group	3
Slices	6
Distance Factor	50 %
Position	L123.7 A11.9 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Phase Oversampling	38 %
FoV Read	280 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	6.4 ms
TE	2.65 ms
Averages	1
Concatenations	16
AutoAlign	---

Contrast - Common

TR	6.4 ms
TE	2.65 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard

Contrast - Common

Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	280 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	None
Phase Partial Fourier	Off
Asymmetric Echo	Allowed

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	6
Distance Factor	50 %
Position	L123.7 A11.9 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Slice Group	2
Slices	6
Distance Factor	50 %
Position	L123.7 A11.9 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Slice Group	3
Slices	6
Distance Factor	50 %
Position	L123.7 A11.9 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Phase Oversampling	38 %

Geometry - Common

FoV Read	280 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	6.4 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	16

Geometry - AutoAlign

Slice Group	1
Position	L123.7 A11.9 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Slice Group	2
Position	L123.7 A11.9 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Slice Group	3
Position	L123.7 A11.9 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L123.7 A11.9 H33.9
L	123.7 mm
A	11.9 mm
H	33.9 mm
Initial Orientation	T > S
T > S	-0.30
> C	0.00
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard

System - Adjustments

B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	6.4 ms
Segments	1
Concatenations	16

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	280 mm
FoV Phase	100.0 %
Phase Resolution	80 %

Physio - PACE

Resp. Control	Off
Concatenations	16

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off

Inline - MIP

MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	290 Hz/Px
Asymmetric Echo	Allowed
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\MR Physics 2 - AAT\Upper Limb\Shoulder\AAT options\t1_tse_cor-AAT-DRB *

TA: 59 sec Coil Selection: Auto Voxel Size: 0.2×0.2×3.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	30
Distance Factor	10 %
Position	L100.8 A11.0 H14.5 mm
Orientation	C > S-30.9 > T-13.5
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	102.6 %
Slice Thickness	3.0 mm
TR	587.0 ms
TE	10.00 ms
Averages	1
Concatenations	2
AutoAlign	Shoulder > Para Cor

Contrast - Common

TR	587.0 ms
TE	10.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	140 mm
FoV Phase	102.6 %
Slice Thickness	3.0 mm
Base Resolution	304
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	4
Reference Lines PE	26
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	30
Distance Factor	10 %
Position	L100.8 A11.0 H14.5 mm
Orientation	C > S-30.9 > T-13.5
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	102.6 %
Slice Thickness	3.0 mm
TR	587.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Geometry - AutoAlign

Slice Group	1
Position	L100.8 A11.0 H14.5 mm
Orientation	C > S-30.9 > T-13.5
Phase Encoding Dir.	R >> L
AutoAlign	Shoulder > Para Cor
Initial Position	L100.8 A11.0 H14.5
L	100.8 mm
A	11.0 mm
H	14.5 mm
Initial Orientation	C > S
C > S	-30.90

Geometry - AutoAlign

> T	-13.50
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	15 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	587.0 ms
Concatenations	2

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	140 mm
FoV Phase	102.6 %
Phase Resolution	80 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tse
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	201 Hz/Px
Echo Spacing	10.4 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	3
Echo Trains per Slice	48

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off

Sequence - Part 2

Reduce Motion Sens.	Off
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	800.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Shoulder\AAT options\t2_tse_fs_cor-AAT-DRB *
TA: 1:36 min Coil Selection: Auto Voxel Size: 0.2×0.2×3.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	2nd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	30
Distance Factor	10 %
Position	L100.8 A11.0 H14.5 mm
Orientation	C > S-30.9 > T-13.5
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4770.0 ms
TE	53.00 ms
Averages	2
Concatenations	1
AutoAlign	Shoulder > Para Cor

Contrast - Common

TR	4770.0 ms
TE	53.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Fat Saturation
Fat Saturation	Weak
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	288
Phase Resolution	75 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	TSE/Separate
Acceleration Factor PE	4
Reference Lines PE	32
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	30
Distance Factor	10 %
Position	L100.8 A11.0 H14.5 mm
Orientation	C > S-30.9 > T-13.5
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4770.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L100.8 A11.0 H14.5 mm
Orientation	C > S-30.9 > T-13.5
Phase Encoding Dir.	R >> L
AutoAlign	Shoulder > Para Cor
Initial Position	L100.8 A11.0 H14.5
L	100.8 mm
A	11.0 mm
H	14.5 mm
Initial Orientation	C > S
C > S	-30.90

Geometry - AutoAlign

> T	-13.50
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	15 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L100.8 A11.0 H14.5 mm
Orientation	C > S-30.9 > T-13.5
Rotation	0.00 deg
R >> L	140 mm
F >> H	140 mm
A >> P	99 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4770.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	None
Dark Blood	Off
FoV Read	140 mm
FoV Phase	100.0 %
Phase Resolution	75 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tseR_rr
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	Read
Bandwidth	150 Hz/Px
Echo Spacing	10.5 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	12
Echo Trains per Slice	9

Sequence - Part 2

Introduction	On
Phase Correction	Off
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off

Sequence - Part 2

Reduce Motion Sens.	Off
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	6000.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Shoulder\AAT options\t2_tse_cor-AAT-DRB *
TA: 1:43 min Coil Selection: Auto Voxel Size: 0.2×0.2×3.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	2nd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	30
Distance Factor	10 %
Position	L100.8 A11.0 H14.5 mm
Orientation	C > S-30.9 > T-13.5
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	5130.0 ms
TE	71.00 ms
Averages	2
Concatenations	1
AutoAlign	Shoulder > Para Cor

Contrast - Common

TR	5130.0 ms
TE	71.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	140 mm

Resolution - Common

FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	336
Phase Resolution	75 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	TSE/Separate
Acceleration Factor PE	4
Reference Lines PE	32
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	30
Distance Factor	10 %
Position	L100.8 A11.0 H14.5 mm
Orientation	C > S-30.9 > T-13.5
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	5130.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L100.8 A11.0 H14.5 mm
Orientation	C > S-30.9 > T-13.5
Phase Encoding Dir.	R >> L
AutoAlign	Shoulder > Para Cor
Initial Position	L100.8 A11.0 H14.5
L	100.8 mm
A	11.0 mm
H	14.5 mm
Initial Orientation	C > S
C > S	-30.90
> T	-13.50

Geometry - AutoAlign

Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	15 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	5130.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	140 mm
FoV Phase	100.0 %
Phase Resolution	75 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tseR
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	150 Hz/Px
Echo Spacing	10.1 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	15
Echo Trains per Slice	9

Sequence - Part 2

Introduction	On
Phase Correction	Off
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off

Sequence - Part 2

Reduce Motion Sens.	Off
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	6000.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Shoulder\AAT options\pd_tse_fs_sag-AAT-DRB *

TA: 1:41 min Coil Selection: Auto Voxel Size: 0.3×0.3×3.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	32
Distance Factor	10 %
Position	L125.6 A5.7 F29.2 mm
Orientation	S > C29.5 > T1.0
Phase Encoding Dir.	A >> P
Phase Oversampling	120 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4500.0 ms
TE	28.00 ms
Averages	1
Concatenations	1
AutoAlign	Shoulder > Para Cor

Contrast - Common

TR	4500.0 ms
TE	28.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	180 deg
Fat-Water Contrast	Fat Saturation
Fat Saturation	Weak
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	272
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	4
Reference Lines PE	28
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	32
Distance Factor	10 %
Position	L125.6 A5.7 F29.2 mm
Orientation	S > C29.5 > T1.0
Phase Encoding Dir.	A >> P
Phase Oversampling	120 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4500.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L125.6 A5.7 F29.2 mm
Orientation	S > C29.5 > T1.0
Phase Encoding Dir.	A >> P
AutoAlign	Shoulder > Para Cor
Initial Position	L125.6 A5.7 F29.2
L	125.6 mm
A	5.7 mm
F	29.2 mm
Initial Orientation	S > C
S > C	29.50

Geometry - AutoAlign

> T	1.00
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Saturation Region	1
Thickness	70.00 mm
Position	L7.7 A27.5 H2.6 mm
Orientation	S > C-27.3 > T-11.9
Shape	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	29 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L125.6 A5.7 F29.2 mm
Orientation	S > C29.5 > T1.0
Rotation	0.00 deg
A >> P	140 mm
F >> H	140 mm
R >> L	106 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	None
Dark Blood	Off
FoV Read	140 mm
FoV Phase	100.0 %
Phase Resolution	80 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tse
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	110 Hz/Px
Echo Spacing	14.2 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	7
Echo Trains per Slice	20

Sequence - Part 2

Introduction	On
Phase Correction	Automatic

Sequence - Part 2

Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	4500.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Shoulder\AAT options\right_localizer *
TA: 30 sec Coil Selection: Auto Voxel Size: 0.5×0.5×6.0 mm³ Acc:: None Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	6
Distance Factor	50 %
Position	R157.2 A7.6 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Slice Group	2
Slices	6
Distance Factor	50 %
Position	R157.2 A7.6 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Slice Group	3
Slices	6
Distance Factor	50 %
Position	R157.2 A7.6 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Phase Oversampling	38 %
FoV Read	280 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	6.4 ms
TE	2.65 ms
Averages	1
Concatenations	16
AutoAlign	---

Contrast - Common

TR	6.4 ms
TE	2.65 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard

Contrast - Common

Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	280 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	None
Phase Partial Fourier	Off
Asymmetric Echo	Allowed

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	6
Distance Factor	50 %
Position	R157.2 A7.6 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Slice Group	2
Slices	6
Distance Factor	50 %
Position	R157.2 A7.6 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Slice Group	3
Slices	6
Distance Factor	50 %
Position	R157.2 A7.6 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Phase Oversampling	38 %

Geometry - Common

FoV Read	280 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	6.4 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	16

Geometry - AutoAlign

Slice Group	1
Position	R157.2 A7.6 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Slice Group	2
Position	R157.2 A7.6 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
Slice Group	3
Position	R157.2 A7.6 H33.9 mm
Orientation	T > S-0.3
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	R157.2 A7.6 H33.9
R	157.2 mm
A	7.6 mm
H	33.9 mm
Initial Orientation	T > S
T > S	-0.30
> C	0.00
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard

System - Adjustments

B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	6.4 ms
Segments	1
Concatenations	16

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	280 mm
FoV Phase	100.0 %
Phase Resolution	80 %

Physio - PACE

Resp. Control	Off
Concatenations	16

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off

Inline - MIP

MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	290 Hz/Px
Asymmetric Echo	Allowed
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\MR Physics 2 - AAT\Upper Limb\Shoulder\AAT options\t1_tse_cor-AAT-DRB *
TA: 59 sec Coil Selection: Auto Voxel Size: 0.2×0.2×3.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	30
Distance Factor	10 %
Position	R99.4 P55.3 H15.6 mm
Orientation	C > S43.4 > T-13.9
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	102.6 %
Slice Thickness	3.0 mm
TR	587.0 ms
TE	10.00 ms
Averages	1
Concatenations	2
AutoAlign	Shoulder > Para Cor

Contrast - Common

TR	587.0 ms
TE	10.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	140 mm
FoV Phase	102.6 %
Slice Thickness	3.0 mm
Base Resolution	304
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	4
Reference Lines PE	26
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	30
Distance Factor	10 %
Position	R99.4 P55.3 H15.6 mm
Orientation	C > S43.4 > T-13.9
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	102.6 %
Slice Thickness	3.0 mm
TR	587.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Geometry - AutoAlign

Slice Group	1
Position	R99.4 P55.3 H15.6 mm
Orientation	C > S43.4 > T-13.9
Phase Encoding Dir.	R >> L
AutoAlign	Shoulder > Para Cor
Initial Position	R99.4 P55.3 H15.6
R	99.4 mm
P	55.3 mm
H	15.6 mm
Initial Orientation	C > S
C > S	43.40

Geometry - AutoAlign

> T	-13.90
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	16 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	587.0 ms
Concatenations	2

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	140 mm
FoV Phase	102.6 %
Phase Resolution	80 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tse
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	201 Hz/Px
Echo Spacing	10.4 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	3
Echo Trains per Slice	48

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off

Sequence - Part 2

Reduce Motion Sens.	Off
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	800.0 ms
Allowed Delay	30 s

SIEMENS MAGNETOM 1.5T XQ Numaris/X VA51A-02ZK

\\MR Physics 2 - AAT\Upper Limb\Shoulder\AAT options\t2_tse_fs_cor-AAT-DRB *
TA: 1:36 min Coil Selection: Auto Voxel Size: 0.2×0.2×3.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	2nd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	30
Distance Factor	10 %
Position	R99.4 P55.3 H15.6 mm
Orientation	C > S43.4 > T-13.9
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4770.0 ms
TE	53.00 ms
Averages	2
Concatenations	1
AutoAlign	Shoulder > Para Cor

Contrast - Common

TR	4770.0 ms
TE	53.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Fat Saturation
Fat Saturation	Weak
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	288
Phase Resolution	75 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	TSE/Separate
Acceleration Factor PE	4
Reference Lines PE	32
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	30
Distance Factor	10 %
Position	R99.4 P55.3 H15.6 mm
Orientation	C > S43.4 > T-13.9
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4770.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	R99.4 P55.3 H15.6 mm
Orientation	C > S43.4 > T-13.9
Phase Encoding Dir.	R >> L
AutoAlign	Shoulder > Para Cor
Initial Position	R99.4 P55.3 H15.6
R	99.4 mm
P	55.3 mm
H	15.6 mm
Initial Orientation	C > S
C > S	43.40

Geometry - AutoAlign

> T	-13.90
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	16 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	R99.4 P55.3 H15.6 mm
Orientation	C > S43.4 > T-13.9
Rotation	0.00 deg
R >> L	140 mm
F >> H	140 mm
A >> P	99 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4770.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	None
Dark Blood	Off
FoV Read	140 mm
FoV Phase	100.0 %
Phase Resolution	75 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tseR_rr
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	Read
Bandwidth	150 Hz/Px
Echo Spacing	10.5 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	12
Echo Trains per Slice	9

Sequence - Part 2

Introduction	On
Phase Correction	Off
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off

Sequence - Part 2

Reduce Motion Sens.	Off
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	6000.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Shoulder\AAT options\t2_tse_cor-AAT-DRB *
TA: 1:43 min Coil Selection: Auto Voxel Size: 0.2×0.2×3.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	2nd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	30
Distance Factor	10 %
Position	R99.4 P55.3 H15.6 mm
Orientation	C > S43.4 > T-13.9
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	5130.0 ms
TE	71.00 ms
Averages	2
Concatenations	1
AutoAlign	Shoulder > Para Cor

Contrast - Common

TR	5130.0 ms
TE	71.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	140 mm

Resolution - Common

FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	336
Phase Resolution	75 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	TSE/Separate
Acceleration Factor PE	4
Reference Lines PE	32
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	30
Distance Factor	10 %
Position	R99.4 P55.3 H15.6 mm
Orientation	C > S43.4 > T-13.9
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	5130.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	R99.4 P55.3 H15.6 mm
Orientation	C > S43.4 > T-13.9
Phase Encoding Dir.	R >> L
AutoAlign	Shoulder > Para Cor
Initial Position	R99.4 P55.3 H15.6
R	99.4 mm
P	55.3 mm
H	15.6 mm
Initial Orientation	C > S
C > S	43.40
> T	-13.90

Geometry - AutoAlign

Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	16 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	5130.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	140 mm
FoV Phase	100.0 %
Phase Resolution	75 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tseR
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	150 Hz/Px
Echo Spacing	10.1 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	15
Echo Trains per Slice	9

Sequence - Part 2

Introduction	On
Phase Correction	Off
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off

Sequence - Part 2

Reduce Motion Sens.	Off
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	6000.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Shoulder\AAT options\pd_tse_fs_sag-AAT-DRB *

TA: 1:41 min Coil Selection: Auto Voxel Size: 0.3×0.3×3.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	32
Distance Factor	10 %
Position	R107.5 P44.7 H10.8 mm
Orientation	C > S-43.9 > T-0.6
Phase Encoding Dir.	R >> L
Phase Oversampling	120 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4500.0 ms
TE	28.00 ms
Averages	1
Concatenations	1
AutoAlign	Shoulder > Para Cor

Contrast - Common

TR	4500.0 ms
TE	28.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	180 deg
Fat-Water Contrast	Fat Saturation
Fat Saturation	Weak
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	272
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	4
Reference Lines PE	28
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	32
Distance Factor	10 %
Position	R107.5 P44.7 H10.8 mm
Orientation	C > S-43.9 > T-0.6
Phase Encoding Dir.	R >> L
Phase Oversampling	120 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4500.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	R107.5 P44.7 H10.8 mm
Orientation	C > S-43.9 > T-0.6
Phase Encoding Dir.	R >> L
AutoAlign	Shoulder > Para Cor
Initial Position	R107.5 P44.7 H10.8
R	107.5 mm
P	44.7 mm
H	10.8 mm
Initial Orientation	C > S
C > S	-43.90

Geometry - AutoAlign

> T	-0.60
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Saturation Region	1
Thickness	50.00 mm
Position	R38.0 P33.8 F24.1 mm
Orientation	S > T23.5 > C14.3
Shape	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	11 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	R107.5 P44.7 H10.8 mm
Orientation	C > S-43.9 > T-0.6
Rotation	0.00 deg
R >> L	140 mm
F >> H	140 mm
A >> P	106 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	None
Dark Blood	Off
FoV Read	140 mm
FoV Phase	100.0 %
Phase Resolution	80 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tse
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	110 Hz/Px
Echo Spacing	14.2 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	7
Echo Trains per Slice	20

Sequence - Part 2

Introduction	On
Phase Correction	Automatic

Sequence - Part 2

Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	4500.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Wrist\AAT options\localizer_tra *

TA: 4 sec Coil Selection: Auto Voxel Size: 0.8×0.8×6.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	Off
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	3
Distance Factor	50 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	400 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
TE	3.33 ms
Averages	1
Concatenations	3
AutoAlign	---

Contrast - Common

TR	7.8 ms
TE	3.33 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	400 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	75 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	Off
Asymmetric Echo	Allowed

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	3
Distance Factor	50 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	400 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.8 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	3

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.8 ms
Segments	1
Concatenations	3

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None

Physio - Cardiac

Dark Blood	Off
FoV Read	400 mm
FoV Phase	100.0 %
Phase Resolution	75 %

Physio - PACE

Resp. Control	Off
Concatenations	3

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	250 Hz/Px
Asymmetric Echo	Allowed
Segments	1

Sequence - Part 2

Introduction	On

Sequence - Part 2

RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\MR Physics 2 - AAT\Upper Limb\Wrist\AAT options\localizer_sag+cor+tra *
TA: 10 sec Coil Selection: Auto Voxel Size: 0.5×0.5×6.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	All Segments
Inline Movie	Off

Routine

Slice Group	1
Slices	3
Distance Factor	30 %
Position	L20.0 P30.5 H0.0 mm
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slice Group	2
Slices	3
Distance Factor	30 %
Position	L20.0 P30.5 H0.0 mm
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slice Group	3
Slices	3
Distance Factor	30 %
Position	L20.0 P30.5 H0.0 mm
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	250 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	8.3 ms
TE	3.57 ms
Averages	1
Concatenations	9
AutoAlign	---

Contrast - Common

TR	8.3 ms
TE	3.57 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard

Contrast - Common

Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	250 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	75 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	Off
Asymmetric Echo	Allowed

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	3
Distance Factor	30 %
Position	L20.0 P30.5 H0.0 mm
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slice Group	2
Slices	3
Distance Factor	30 %
Position	L20.0 P30.5 H0.0 mm
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slice Group	3
Slices	3
Distance Factor	30 %
Position	L20.0 P30.5 H0.0 mm

Geometry - Common

Orientation	Sagittal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	250 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	8.3 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	9

Geometry - AutoAlign

Slice Group	1
Position	L20.0 P30.5 H0.0 mm
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slice Group	2
Position	L20.0 P30.5 H0.0 mm
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slice Group	3
Position	L20.0 P30.5 H0.0 mm
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L20.0 P30.5 H0.0
L	20.0 mm
P	30.5 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	8.3 ms
Segments	1
Concatenations	9

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	250 mm
FoV Phase	100.0 %
Phase Resolution	75 %

Physio - PACE

Resp. Control	Off
Concatenations	9

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off

Inline - MIP

MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	250 Hz/Px
Asymmetric Echo	Allowed
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\MR Physics 2 - AAT\Upper Limb\Wrist\AAT options\t2_tse_stir_cor-AAT-DRB *
TA: 2:08 min Coil Selection: Auto Voxel Size: 0.2×0.2×2.5 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	20
Distance Factor	10 %
Position	R40.2 A54.8 F25.6 mm
Orientation	C > S5.8 > T-1.3
Phase Encoding Dir.	F >> H
Phase Oversampling	200 %
FoV Read	100 mm
FoV Phase	100.0 %
Slice Thickness	2.5 mm
TR	3250.0 ms
TE	35.00 ms
Averages	1
Concatenations	1
AutoAlign	---

Contrast - Common

TR	3250.0 ms
TE	35.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	160 ms
Freeze Suppr. Tissue	Off
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	100 mm
FoV Phase	100.0 %
Slice Thickness	2.5 mm
Base Resolution	240
Phase Resolution	70 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	27
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	20
Distance Factor	10 %
Position	R40.2 A54.8 F25.6 mm
Orientation	C > S5.8 > T-1.3
Phase Encoding Dir.	F >> H
Phase Oversampling	200 %
FoV Read	100 mm
FoV Phase	100.0 %
Slice Thickness	2.5 mm
TR	3250.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	R40.2 A54.8 F25.6 mm
Orientation	C > S5.8 > T-1.3
Phase Encoding Dir.	F >> H
AutoAlign	---
Initial Position	R40.2 A54.8 F25.6
R	40.2 mm
A	54.8 mm
F	25.6 mm
Initial Orientation	C > S
C > S	5.80

Geometry - AutoAlign

> T	-1.30
Initial Rotation	79.56 deg

Geometry - Navigator

Geometry - Saturation

Saturation Region	1
Thickness	50.00 mm
Position	R6.1 A56.7 F114.7 mm
Orientation	T > S-9.9 > C0.3
Shape	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3250.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Slice-sel. IR
TI	160 ms
Dark Blood	Off
FoV Read	100 mm
FoV Phase	100.0 %
Phase Resolution	70 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tir
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	150 Hz/Px
Echo Spacing	11.5 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	7
Echo Trains per Slice	38

Sequence - Part 2

Introduction	On

Sequence - Part 2

Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	6000.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Wrist\AAT options\t1_tse_cor-AAT-DRB *

TA: 1:03 min Coil Selection: Auto Voxel Size: 0.2×0.2×2.5 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	20
Distance Factor	10 %
Position	R40.2 A54.8 F25.6 mm
Orientation	C > S5.8 > T-1.3
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	100 mm
FoV Phase	100.0 %
Slice Thickness	2.5 mm
TR	400.0 ms
TE	10.00 ms
Averages	1
Concatenations	2
AutoAlign	---

Contrast - Common

TR	400.0 ms
TE	10.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	100 mm
FoV Phase	100.0 %
Slice Thickness	2.5 mm
Base Resolution	288
Phase Resolution	75 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	20
Distance Factor	10 %
Position	R40.2 A54.8 F25.6 mm
Orientation	C > S5.8 > T-1.3
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	100 mm
FoV Phase	100.0 %
Slice Thickness	2.5 mm
TR	400.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Geometry - AutoAlign

Slice Group	1
Position	R40.2 A54.8 F25.6 mm
Orientation	C > S5.8 > T-1.3
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	R40.2 A54.8 F25.6
R	40.2 mm
A	54.8 mm
F	25.6 mm
Initial Orientation	C > S
C > S	5.80

Geometry - AutoAlign

> T	-1.30
Initial Rotation	-10.44 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	26 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	400.0 ms
Concatenations	2

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	100 mm
FoV Phase	100.0 %
Phase Resolution	75 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tseV
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	299 Hz/Px
Echo Spacing	10.2 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	3
Echo Trains per Slice	76

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off
WARP	On
VAT	50 %
SEMAC	0

Sequence - Part 2

Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	Off
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	800.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Wrist\AAT options\t1_tse_tra-AAT-DR *

TA: 54 sec Coil Selection: Auto Voxel Size: 0.2×0.2×2.5 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	25
Distance Factor	10 %
Position	R36.4 A55.3 F23.1 mm
Orientation	T > S-11.1 > C-0.2
Phase Encoding Dir.	A >> P
Phase Oversampling	60 %
FoV Read	100 mm
FoV Phase	100.0 %
Slice Thickness	2.5 mm
TR	498.0 ms
TE	18.00 ms
Averages	1
Concatenations	2
AutoAlign	---

Contrast - Common

TR	498.0 ms
TE	18.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	100 mm
FoV Phase	100.0 %
Slice Thickness	2.5 mm
Base Resolution	224
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	26
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	25
Distance Factor	10 %
Position	R36.4 A55.3 F23.1 mm
Orientation	T > S-11.1 > C-0.2
Phase Encoding Dir.	A >> P
Phase Oversampling	60 %
FoV Read	100 mm
FoV Phase	100.0 %
Slice Thickness	2.5 mm
TR	498.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Geometry - AutoAlign

Slice Group	1
Position	R36.4 A55.3 F23.1 mm
Orientation	T > S-11.1 > C-0.2
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	R36.4 A55.3 F23.1
R	36.4 mm
A	55.3 mm
F	23.1 mm
Initial Orientation	T > S
T > S	-11.10

Geometry - AutoAlign

> C	-0.20
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	23 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	R36.4 A55.3 F23.1 mm
Orientation	T > S-11.1 > C-0.2
Rotation	0.00 deg
A >> P	100 mm
R >> L	100 mm
F >> H	69 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	498.0 ms
Concatenations	2

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	100 mm
FoV Phase	100.0 %
Phase Resolution	80 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tseV
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	302 Hz/Px
Echo Spacing	9.04 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	3
Echo Trains per Slice	52

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off
WARP	On
VAT	50 %
SEMAC	0

Sequence - Part 2

Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	800.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Wrist\AAT options\t2_tse_stir_tra-AAT-DR *

TA: 1:31 min Coil Selection: Auto Voxel Size: 0.2×0.2×2.5 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	25
Distance Factor	10 %
Position	R36.4 A55.3 F23.1 mm
Orientation	T > S-11.1 > C-0.2
Phase Encoding Dir.	A >> P
Phase Oversampling	100 %
FoV Read	100 mm
FoV Phase	100.0 %
Slice Thickness	2.5 mm
TR	3310.0 ms
TE	30.00 ms
Averages	1
Concatenations	1
AutoAlign	---

Contrast - Common

TR	3310.0 ms
TE	30.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	160 ms
Freeze Suppr. Tissue	Off
Flip Angle	130 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	100 mm
FoV Phase	100.0 %
Slice Thickness	2.5 mm
Base Resolution	224
Phase Resolution	75 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	27
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	25
Distance Factor	10 %
Position	R36.4 A55.3 F23.1 mm
Orientation	T > S-11.1 > C-0.2
Phase Encoding Dir.	A >> P
Phase Oversampling	100 %
FoV Read	100 mm
FoV Phase	100.0 %
Slice Thickness	2.5 mm
TR	3310.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	R36.4 A55.3 F23.1 mm
Orientation	T > S-11.1 > C-0.2
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	R36.4 A55.3 F23.1
R	36.4 mm
A	55.3 mm
F	23.1 mm
Initial Orientation	T > S
T > S	-11.10

Geometry - AutoAlign

> C	-0.20
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	Parallel F/H
Gap	10.00 mm
Thickness	50.00 mm

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	23 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3310.0 ms

Physio - Signal

Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Slice-sel. IR
TI	160 ms
Dark Blood	Off
FoV Read	100 mm
FoV Phase	100.0 %
Phase Resolution	75 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tirW_rs
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	Slice
Bandwidth	302 Hz/Px
Echo Spacing	9.94 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	7
Echo Trains per Slice	26

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off

Sequence - Part 2

Fast Mode	Off
WARP	On
VAT	0 %
SEMAC	0
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	6000.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Elbow\AAT options\localizer *

TA: 6 sec Coil Selection: Auto Voxel Size: 0.7×0.7×6.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	Off
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	5
Distance Factor	50 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	350 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.0 ms
TE	3.04 ms
Averages	1
Concatenations	5
AutoAlign	---

Contrast - Common

TR	7.0 ms
TE	3.04 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	350 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	Off
Asymmetric Echo	Allowed

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	5
Distance Factor	50 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	350 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.0 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	5

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.0 ms
Segments	1
Concatenations	5

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None

Physio - Cardiac

Dark Blood	Off
FoV Read	350 mm
FoV Phase	100.0 %
Phase Resolution	80 %

Physio - PACE

Resp. Control	Off
Concatenations	5

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	280 Hz/Px
Asymmetric Echo	Allowed
Segments	1

Sequence - Part 2

Introduction	On

Sequence - Part 2

RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\MR Physics 2 - AAT\Upper Limb\Elbow\AAT options\localizer_sag+cor+tra *

TA: 10 sec Coil Selection: Auto Voxel Size: 0.4×0.4×6.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	All Segments
Inline Movie	Off

Routine

Slice Group	1
Slices	3
Distance Factor	50 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	3
Distance Factor	50 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	3
Slices	3
Distance Factor	50 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FoV Read	200 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.6 ms
TE	3.37 ms
Averages	1
Concatenations	9
AutoAlign	---

Contrast - Common

TR	7.6 ms
TE	3.37 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard

Contrast - Common

Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	200 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	70 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	Off
Asymmetric Echo	Allowed

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	3
Distance Factor	50 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	3
Distance Factor	50 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	3
Slices	3
Distance Factor	50 %
Position	Isocenter

Geometry - Common

Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FoV Read	200 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.6 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	9

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	3
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Coronal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.6 ms
Segments	1
Concatenations	9

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	200 mm
FoV Phase	100.0 %
Phase Resolution	70 %

Physio - PACE

Resp. Control	Off
Concatenations	9

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off

Inline - MIP

MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	280 Hz/Px
Asymmetric Echo	Allowed
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\MR Physics 2 - AAT\Upper Limb\Elbow\AAT options\t1_tse_tra-AAT-DRB *

TA: 1:49 min Coil Selection: Auto Voxel Size: 0.2×0.2×3.0 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	1st Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	26
Distance Factor	10 %
Position	L137.4 P79.5 F2.3 mm
Orientation	T > S16.8 > C7.1
Phase Encoding Dir.	A >> P
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	495.0 ms
TE	10.00 ms
Averages	2
Concatenations	2
AutoAlign	---

Contrast - Common

TR	495.0 ms
TE	10.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	288
Phase Resolution	75 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	27
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	26
Distance Factor	10 %
Position	L137.4 P79.5 F2.3 mm
Orientation	T > S16.8 > C7.1
Phase Encoding Dir.	A >> P
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	495.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Geometry - AutoAlign

Slice Group	1
Position	L137.4 P79.5 F2.3 mm
Orientation	T > S16.8 > C7.1
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	L137.4 P79.5 F2.3
L	137.4 mm
P	79.5 mm
F	2.3 mm
Initial Orientation	T > S
T > S	16.80

Geometry - AutoAlign

> C	7.10
Initial Rotation	-5.09 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	495.0 ms
Concatenations	2

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	140 mm
FoV Phase	100.0 %
Phase Resolution	75 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tse
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	179 Hz/Px
Echo Spacing	10.1 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	3
Echo Trains per Slice	54

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off

Sequence - Part 2

Reduce Motion Sens.	Off
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	800.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Elbow\AAT options\pd_tse_dixon_cor-AAT-DRG-SMS *

TA: 2:09 min Coil Selection: Auto Voxel Size: 0.3×0.3×3.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	24
Distance Factor	20 %
Position	L136.9 P77.3 F3.3 mm
Orientation	C > S12.9 > T-2.5
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	150 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	1870.0 ms
TE	34.00 ms
Averages	2
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1870.0 ms
TE	34.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	142 deg
Fat-Water Contrast	Dixon
Fat Saturation	Weak
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	150 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	224
Phase Resolution	75 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	TSE/Separate
Acceleration Factor PE	2
Reference Lines PE	64
SMS Factor	2
FOV Shift Factor	4
Deep Resolve	On
Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	24
Distance Factor	20 %
Position	L136.9 P77.3 F3.3 mm
Orientation	C > S12.9 > T-2.5
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	150 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	1870.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L136.9 P77.3 F3.3 mm
Orientation	C > S12.9 > T-2.5
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	L136.9 P77.3 F3.3
L	136.9 mm
P	77.3 mm

Geometry - AutoAlign

F	3.3 mm
Initial Orientation	C > S
C > S	12.90
> T	-2.50
Initial Rotation	1.84 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L136.9 P77.3 F3.3 mm
Orientation	C > S12.9 > T-2.5
Rotation	1.84 deg
R >> L	150 mm
F >> H	150 mm
A >> P	86 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None

Physio - Signal

TR	1870.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Dixon
Magn. Preparation	None
Dark Blood	Off
FoV Read	150 mm
FoV Phase	100.0 %
Phase Resolution	75 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tseR
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	349 Hz/Px
Echo Spacing	11.47 ms
Asymmetric Echo	Off
Define	Turbo Factor
Turbo Factor	11
Echo Trains per Slice	16

Sequence - Part 2

Introduction	On
Phase Correction	Off
Red. EC Sensitivity	Off
Reduce Motion Sens.	On

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	4500.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Elbow\AAT options\t2_tse_stir_sag-AAT-DRB *
TA: 2:08 min Coil Selection: Auto Voxel Size: 0.3×0.3×3.0 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	26
Distance Factor	10 %
Position	R203.8 P59.2 H8.5 mm
Orientation	S > C40.2 > T-4.5
Phase Encoding Dir.	A >> P
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	3600.0 ms
TE	34.00 ms
Averages	2
Concatenations	1
AutoAlign	---

Contrast - Common

TR	3600.0 ms
TE	34.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	160 ms
Freeze Suppr. Tissue	Off
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	224
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	26
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	26
Distance Factor	10 %
Position	R203.8 P59.2 H8.5 mm
Orientation	S > C40.2 > T-4.5
Phase Encoding Dir.	A >> P
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	3600.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	R203.8 P59.2 H8.5 mm
Orientation	S > C40.2 > T-4.5
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	R203.8 P59.2 H8.5
R	203.8 mm
P	59.2 mm
H	8.5 mm
Initial Orientation	S > C
S > C	40.20

Geometry - AutoAlign

> T	-4.50
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	9 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

! Position	L134.8 P7.0 H10.4 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	263 mm
! R >> L	350 mm
! F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3600.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Slice-sel. IR
TI	160 ms
Dark Blood	Off
FoV Read	140 mm
FoV Phase	100.0 %
Phase Resolution	80 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tir
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	153 Hz/Px
Echo Spacing	11.3 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	8
Echo Trains per Slice	17

Sequence - Part 2

Introduction	On
Phase Correction	Off
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off

Sequence - Part 2

Acoustic noise reduction	Off
Reduce Motion Sens.	Off
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	6000.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Elbow\AAT options\localizer *
TA: 6 sec Coil Selection: Auto Voxel Size: 0.7×0.7×6.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	Off
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	5
Distance Factor	50 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	350 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.0 ms
TE	3.04 ms
Averages	1
Concatenations	5
AutoAlign	---

Contrast - Common

TR	7.0 ms
TE	3.04 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	350 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	Off
Asymmetric Echo	Allowed

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	5
Distance Factor	50 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	350 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.0 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	5

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.0 ms
Segments	1
Concatenations	5

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None

Physio - Cardiac

Dark Blood	Off
FoV Read	350 mm
FoV Phase	100.0 %
Phase Resolution	80 %

Physio - PACE

Resp. Control	Off
Concatenations	5

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	280 Hz/Px
Asymmetric Echo	Allowed
Segments	1

Sequence - Part 2

Introduction	On

Sequence - Part 2

RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\MR Physics 2 - AAT\Upper Limb\Elbow\AAT options\localizer_sag+cor+tra *

TA: 10 sec Coil Selection: Auto Voxel Size: 0.4×0.4×6.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	All Segments
Inline Movie	Off

Routine

Slice Group	1
Slices	3
Distance Factor	50 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	3
Distance Factor	50 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	3
Slices	3
Distance Factor	50 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FoV Read	200 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.6 ms
TE	3.37 ms
Averages	1
Concatenations	9
AutoAlign	---

Contrast - Common

TR	7.6 ms
TE	3.37 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard

Contrast - Common

Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	200 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
Base Resolution	256
Phase Resolution	70 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	Off
Asymmetric Echo	Allowed

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	3
Distance Factor	50 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Slices	3
Distance Factor	50 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	3
Slices	3
Distance Factor	50 %
Position	Isocenter

Geometry - Common

Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	25 %
FoV Read	200 mm
FoV Phase	100.0 %
Slice Thickness	6.0 mm
TR	7.6 ms
Multi-Slice Mode	Sequential
Series	Interleaved
Concatenations	9

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	2
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Slice Group	3
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Coronal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	7.6 ms
Segments	1
Concatenations	9

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	200 mm
FoV Phase	100.0 %
Phase Resolution	70 %

Physio - PACE

Resp. Control	Off
Concatenations	9

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off

Inline - MIP

MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	fl
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	280 Hz/Px
Asymmetric Echo	Allowed
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off

\\MR Physics 2 - AAT\Upper Limb\Elbow\AAT options\t1_tse_tra-AAT-DRB *
TA: 1:49 min Coil Selection: Auto Voxel Size: 0.2×0.2×3.0 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	1st Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	26
Distance Factor	10 %
Position	R74.4 A62.5 F7.4 mm
Orientation	T > C5.1 > S0.2
Phase Encoding Dir.	A >> P
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	495.0 ms
TE	10.00 ms
Averages	2
Concatenations	2
AutoAlign	---

Contrast - Common

TR	495.0 ms
TE	10.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	288
Phase Resolution	75 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	27
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	26
Distance Factor	10 %
Position	R74.4 A62.5 F7.4 mm
Orientation	T > C5.1 > S0.2
Phase Encoding Dir.	A >> P
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	495.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Geometry - AutoAlign

Slice Group	1
Position	R74.4 A62.5 F7.4 mm
Orientation	T > C5.1 > S0.2
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	R74.4 A62.5 F7.4
R	74.4 mm
A	62.5 mm
F	7.4 mm
Initial Orientation	T > C
T > C	5.10

Geometry - AutoAlign

> S	0.20
Initial Rotation	29.35 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	495.0 ms
Concatenations	2

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	140 mm
FoV Phase	100.0 %
Phase Resolution	75 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tse
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	179 Hz/Px
Echo Spacing	10.1 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	3
Echo Trains per Slice	54

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off

Sequence - Part 2

Reduce Motion Sens.	Off
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	800.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Elbow\AAT options\pd_tse_dixon_cor-AAT-DRG-SMS *

TA: 2:09 min Coil Selection: Auto Voxel Size: 0.3×0.3×3.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	24
Distance Factor	20 %
Position	R78.2 A63.5 H1.9 mm
Orientation	C > S-29.0 > T-6.8
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	150 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	1870.0 ms
TE	34.00 ms
Averages	2
Concatenations	1
AutoAlign	---

Contrast - Common

TR	1870.0 ms
TE	34.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	142 deg
Fat-Water Contrast	Dixon
Fat Saturation	Weak
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	Restore
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	150 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	224
Phase Resolution	75 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	TSE/Separate
Acceleration Factor PE	2
Reference Lines PE	64
SMS Factor	2
FOV Shift Factor	4
Deep Resolve	On
Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	24
Distance Factor	20 %
Position	R78.2 A63.5 H1.9 mm
Orientation	C > S-29.0 > T-6.8
Phase Encoding Dir.	R >> L
Phase Oversampling	100 %
FoV Read	150 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	1870.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	R78.2 A63.5 H1.9 mm
Orientation	C > S-29.0 > T-6.8
Phase Encoding Dir.	R >> L
AutoAlign	---
Initial Position	R78.2 A63.5 H1.9
R	78.2 mm
A	63.5 mm

Geometry - AutoAlign

H	1.9 mm
Initial Orientation	C > S
C > S	-29.00
> T	-6.80
Initial Rotation	1.84 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Performance
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	R78.2 A63.5 H1.9 mm
Orientation	C > S-29.0 > T-6.8
Rotation	1.84 deg
R >> L	150 mm
F >> H	150 mm
A >> P	86 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None

Physio - Signal

TR	1870.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Dixon
Magn. Preparation	None
Dark Blood	Off
FoV Read	150 mm
FoV Phase	100.0 %
Phase Resolution	75 %

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tseR
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	349 Hz/Px
Echo Spacing	11.47 ms
Asymmetric Echo	Off
Define	Turbo Factor
Turbo Factor	11
Echo Trains per Slice	16

Sequence - Part 2

Introduction	On
Phase Correction	Off
Red. EC Sensitivity	Off
Reduce Motion Sens.	On

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	4500.0 ms
Allowed Delay	30 s

\\MR Physics 2 - AAT\Upper Limb\Elbow\AAT options\t2_tse_stir_sag-AAT-DRB *

TA: 2:08 min Coil Selection: Auto Voxel Size: 0.3×0.3×3.0 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	26
Distance Factor	10 %
Position	R75.3 A54.2 F2.4 mm
Orientation	S > C40.2 > T-0.9
Phase Encoding Dir.	A >> P
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	3600.0 ms
TE	34.00 ms
Averages	2
Concatenations	1
AutoAlign	---

Contrast - Common

TR	3600.0 ms
TE	34.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	160 ms
Freeze Suppr. Tissue	Off
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	224
Phase Resolution	80 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	26
Deep Resolve	On
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	26
Distance Factor	10 %
Position	R75.3 A54.2 F2.4 mm
Orientation	S > C40.2 > T-0.9
Phase Encoding Dir.	A >> P
Phase Oversampling	100 %
FoV Read	140 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	3600.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	R75.3 A54.2 F2.4 mm
Orientation	S > C40.2 > T-0.9
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	R75.3 A54.2 F2.4
R	75.3 mm
A	54.2 mm
F	2.4 mm
Initial Orientation	S > C
S > C	40.20

Geometry - AutoAlign

> T	-0.90
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	ACS All but spine
Radial Sorting	Off
MSMA	S - C - T
Sagittal	Med >> Lat
Coronal	A >> P
Transversal	H >> F
Coil Combination	Adaptive Combine
Matrix Optimization	Off
Coil Focus	Flat

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

! Position	L134.8 P7.0 H10.4 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	263 mm
! R >> L	350 mm
! F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	63.679887 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3600.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Slice-sel. IR
TI	160 ms
Dark Blood	Off
FoV Read	140 mm
FoV Phase	100.0 %
Phase Resolution	80 %
Motion Correction	None

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Motion Correction	None
Save Original Images	On

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tir
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	153 Hz/Px
Echo Spacing	11.3 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	8
Echo Trains per Slice	17

Sequence - Part 2

Introduction	On
Phase Correction	Off
Compensate T2 Decay	Off
Fast Mode	Off
WARP	Off
Red. EC Sensitivity	Off

Sequence - Part 2

Acoustic noise reduction	Off
Reduce Motion Sens.	Off
Motion Correction	None

Sequence - Assistant

SAR Assistant	Flip Angle > TR
Min Flip Angle	120 deg
Max. TR	6000.0 ms
Allowed Delay	30 s