\\USER\Yongsheng\projects\NIH_R61NS119434_CHEN_V2\thigh_localizer_sag+cor+tra TA: 0:37 PAT: Off Voxel size: 1.5×1.1×3.0 mm Rel. SNR: 1.00 SIEMENS: gre

Dunantina		Phase resolution	75 %
Properties	0"	——— Phase partial Fourier	Off
Prio Recon	Off	Interpolation	On
Before measurement			NI
After measurement	0:-	PAT mode	None
Load to viewer	On Off	Matrix Coil Mode	Auto (CP)
Inline movie	Off	Image Filter	Off
Auto store images	On O#	Distortion Corr.	Off
Load to stamp segments	Off	Prescan Normalize	Off
Load images to graphic	On	Normalize	Off
segments	Off	B1 filter	Off
Auto open inline display	On	Raw filter	Off
Start measurement without	On	Elliptical filter	On
further preparation	Off	Mode	Inplane
Wait for user to start Start measurements		Coomatin	•
Start measurements	single	Geometry	Commercial
Routine		Multi-slice mode Series	Sequential Interleaved
Slice group 1	40		
Slices	13	Saturation mode	Standard
Dist. factor	0 %	Special sat.	None
Position	R20.0 A36.0 H0.0		
Orientation	Sagittal	Tim CT mode	Off
Phase enc. dir.	A >> P	System	
Rotation	0.00 deg		Off
Slice group 2		Body KN	On
Slices	3	SP4	Off
Dist. factor	50 %	SP2	Off
Position	R20.0 A36.0 H0.0	SP8	Off
Orientation	Coronal		
Phase enc. dir.	R >> L	SP6	Off
Rotation	0.00 deg	SP3 SP1	Off Off
Slice group 3		SP7	Off
Slices	3	SP7	Off
Dist. factor	50 %	3 P3	OII
Position	R20.0 A36.0 H0.0	Positioning mode	REF
Orientation	Transversal	Table position	Н
Phase enc. dir.	A >> P	Table position	0 mm
Rotation	0.00 deg	MSMA	S - C - T
Phase oversampling	25 %	Sagittal	R >> L
FoV read	280 mm	Coronal	A >> P
FoV phase	100.0 %	Transversal	H >> F
Slice thickness	3.0 mm	Save uncombined	Off
TR	7.7 ms	Coil Combine Mode	Adaptive Combine
TE	3.67 ms	Auto Coil Select	Default
Averages	1	Chim mada	Tuno un
Concatenations	19	Shim mode	Tune up Off
Filter	Elliptical filter	Adjust with body coil	Off
Coil elements	KN	Confirm freq. adjustment	Off
Contrast		Assume Silicone ? Ref. amplitude 1H	0.000 V
TD	0 ms	Adjustment Tolerance	Auto
MTC	Off	Adjust volume	Auto
Magn. preparation	None	Position	Isocenter
Flip angle	20 deg	Orientation	Transversal
Fat suppr.	None	Rotation	0.00 deg
Water suppr.	None	Rotation R >> L	350 mm
SWI	Off	A >> P	263 mm
			350 mm
Averaging mode	Short term	ļ	550 Hilli
Reconstruction	Magnitude	Physio	
Measurements	1	1st Signal/Mode	None
Multiple series	Each measurement	Segments	1
Resolution		Tagging	None
Base resolution	256	Tagging Dark blood	None Off
ı		Dain blood	Ŭii

Resp. control	Off
Inline	
Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1
Sequence	
Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	320 Hz/Px
Flow comp.	No
Allowed delay	0 s
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

•	- · ·	0.2×3.0 mm Rel. SNR: 1.00	SIEMENS: gre
		Distortion Corr.	Off
Properties		Prescan Normalize	Off
Prio Recon	Off	Normalize	Off
Before measurement		B1 filter	Off
After measurement		Raw filter	Off
Load to viewer	On		Off
Inline movie	Off	Elliptical filter	Oil
Auto store images	On	Geometry	
Load to stamp segments	Off	Multi-slice mode	Interleaved
Load images to graphic	Off	Series	Interleaved
segments	Oii		
Auto open inline display	Off	Saturation mode	Standard
1	On	Special sat.	None
Start measurement without	On		
further preparation	0#	Tim CT mode	Off
Wait for user to start	Off	Tim OT mode	311
Start measurements	single	System	
Routine		Body	Off
Slab group 1		<u> </u> км ́	On
• .	4	SP4	Off
Slabs	1	SP2	Off
Dist. factor	20 %	SP8	Off
Position	R20.3 A40.7 H0.0	SP6	Off
Orientation	T > C12.4	SP3	Off
Phase enc. dir.	A >> P		
Rotation	0.00 deg	SP1	Off
Phase oversampling	0 %	SP7	Off
Slice oversampling	10.0 %	SP5	Off
Slices per slab	40	Positioning mode	REF
FoV read	160 mm	Positioning mode	
FoV phase	100.0 %	Table position	H
Slice thickness	3.00 mm	Table position	0 mm
		MSMA	S - C - T
TR	23 ms	Sagittal	R >> L
TE	7.50 ms	Coronal	A >> P
Averages	1	Transversal	F >> H
Concatenations	1	Save uncombined	Off
Filter	None	Coil Combine Mode	Adaptive Combine
Coil elements	KN	Auto Coil Select	Default
Contrast		Shim mode	Standard
MTC	Off	Adjust with body coil	Off
Magn. preparation	None	Confirm freq. adjustment	Off
Flip angle	12 deg	Assume Silicone	Off
Fat suppr.	Water excit. fast	? Ref. amplitude 1H	0.000 V
Water suppr.	None	Adjustment Tolerance	Auto
SWI	Off	Adjust volume	, tuto
			P20 2 A40 7 H0 0
Averaging mode	Short term	Position	R20.3 A40.7 H0.0
Reconstruction	Magn./Phase	Orientation	T > C12.4
Measurements	1	Rotation	0.00 deg
Multiple series	Each measurement	R >> L	160 mm
	200000000000000000000000000000000000000	A >> P	160 mm
Resolution		F >> H	120 mm
Base resolution	1024	Physic	
Phase resolution	75 %	Physio	
Slice resolution	100 %	1st Signal/Mode	None
Phase partial Fourier	Off	Segments	1
Slice partial Fourier	Off	Tagging	None
Interpolation	Off	Tagging Dark blood	Off
			<u> </u>
PAT mode	GRAPPA	Resp. control	Off
Accel. factor PE	2	Inline	
Ref. lines PE	24	Inline	
Accel. factor 3D	1	Subtract	Off
Matrix Coil Mode	Auto (Triple)	Liver registration	Off
Reference scan mode	Integrated	Std-Dev-Sag	Off
		Std-Dev-Cor	Off
Image Filter	Off	Std-Dev-Tra	Off

	Std-Dev-Time	Off	
	MIP-Sag	Off	
	MIP-Cor	Off	
	MIP-Tra	Off	
	MIP-Time	Off	
	Save original images	On	
	Wash - In	Off	
	Wash - Out	Off	
	TTP	Off	
	PEI	Off	
	MIP - time	Off	
	Maplt	None	
	Contrasts	1	
•	Sequence		
	Introduction	On	
	Dimension	3D	

Introduction	On
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	110 Hz/Px
Flow comp.	Slice
Allowed delay	0 s
 RF pulse type	Fast
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

\\USEI	R\Yongshe	eng\projects\NIH_R61NS119	434_CHEN_V2\t	nigh_mDixon
TA: 1:08	PAT: 2	Voxel size: 1.3×1.3×3.0 mm	Rel. SNR: 1.00	SIEMENS: gre

Properties Prio Recon	Off	Accel. factor 3D Matrix Coil Mode	1 Auto (Triple)
Before measurement		Reference scan mode	Integrated
After measurement		Image Filter	Off
Load to viewer	On	Distortion Corr.	Off
Inline movie	Off	Prescan Normalize	Off
Auto store images	On	Normalize	Off
Load to stamp segments	Off	B1 filter	Off
Load images to graphic	Off	Raw filter	Off
segments	.	Elliptical filter	Off
Auto open inline display	Off	Ι .	
Start measurement without	On	Geometry	
further preparation	On	Multi-slice mode	Interleaved
Wait for user to start	Off	Series	Interleaved
Start measurements	single	Saturation mode	Standard
Start measurements	Sirigic		
Routine		Special sat.	None
Slab group 1			
Slabs	1	Tim CT mode	Off
Dist. factor	20 %	System	
Position	R20.3 A40.7 H0.0	Body	Off
Orientation	T > C12.4	KN	On
Phase enc. dir.	A >> P	SP4	Off
Rotation	0.00 deg	SP2	Off
Phase oversampling	0 %		_
Slice oversampling	10.0 %	SP8	Off
Slices per slab	40	SP6	Off
FoV read	160 mm	SP3	Off
FoV read FoV phase	100.0 %	SP1	Off
Slice thickness		SP7	Off
	3.00 mm	SP5	Off
TR	20 ms	Positioning mode	FIX
TE 1	2.10 ms	Table position	H
TE 2	5.10 ms		0 mm
TE 3	8.10 ms	Table position	
TE 4	11.10 ms	MSMA	S-C-T
TE 5	14.10 ms	Sagittal	R >> L
TE 6	17.10 ms	Coronal	A >> P
Averages	1	Transversal	F >> H
Concatenations	1	Save uncombined	Off
Filter	None	Coil Combine Mode	Sum of Squares
Coil elements	KN	Auto Coil Select	Default
Contract		Shim mode	Standard
Contrast	0"	Adjust with body coil	Off
MTC	Off	Confirm freq. adjustment	Off
Magn. preparation	None	Assume Silicone	Off
Flip angle	6 deg		
Fat suppr.	None	? Ref. amplitude 1H	0.000 V
Water suppr.	None	Adjustment Tolerance	Auto
SWI	Off	Adjust volume	D00 0 A40 7 H0 0
Averaging mode	Short term	Position	R20.3 A40.7 H0.0
Averaging mode	Short term	Orientation	T > C12.4
Reconstruction	Magn./Phase	Rotation	0.00 deg
Measurements	Fook massurers t	R >> L	160 mm
Multiple series	Each measurement	A >> P	160 mm
Resolution		F >> H	120 mm
Base resolution	128	Physio	
Phase resolution	100 %		None
Slice resolution	100 %	1st Signal/Mode	None
Phase partial Fourier	Off	Segments	1
Slice partial Fourier	Off	Tagging	None
Interpolation	Off	Dark blood	Off
interpolation			
PAT mode	GRAPPA	Resp. control	Off
Accel. factor PE	2	Inline	
		inline	

Subtract Liver registration Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Time Save original images	Off
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	6
Sequence	
Introduction Dimension Elliptical scanning Phase stabilisation Asymmetric echo Bandwidth 1 Bandwidth 2 Bandwidth 3 Bandwidth 4 Bandwidth 5 Bandwidth 6 Flow comp. 1 Flow comp. 2 Flow comp. 3 Flow comp. 4 Flow comp. 5 Flow comp. 6 Readout mode Allowed delay	On 3D Off Off Off Off 710 Hz/Px No
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

\\USER	\Yongshe	ng\projects\NIH_R61NS1194	I34_CHEN_V2\th	igh_MTR_ON	
TA: 3:10	PAT: 2	Voxel size: 0.8×0.6×3.0 mm	Rel. SNR: 1.00	SIEMENS: gre	

Properties	
Before measurement	
After measurement Load to viewer On B 1 filter Off	
Load to viewer	
Inline movie	
Auto store images	
Load to stamp segments	
Load images to graphic segments Auto open inline display	
Segments	
Auto open inline display Start measurement without further preparation Wait for user to start Start measurements System System Start measurements Start measurements System System Start measurements System Start measurements Start measurements System System Start measurements Start measurements Start measurements Start measurements System System Off SP4	
Start measurement without further preparation	
Further preparation Wait for user to start Start measurements Single Tim CT mode Off	
Wait for user to start Start measurements Single Tim CT mode Off	
Start measurements	
Slab group 1	
Slab group 1	
Slab group 1	
Slabs	
Dist. factor	
Position	
Orientation T > C12.4 SP8 Off Phase enc. dir. A >> P SP6 Off Rotation 0.00 deg SP3 Off Phase oversampling 10.0 % SP1 Off Slice oversampling 10.0 % SP7 Off Slice per slab 40 SP5 Off FoV read 160 mm Positioning mode FIX FoV phase 100.0 % Positioning mode FIX Slice thickness 3.00 mm Table position H TR 40 ms Table position H TE 15.10 ms MSMA S - C - T MSMA S - C - T Sagittal R >> L TE 2 10.34 ms Sagittal R >> L Averages 1 Transversal F >> H Averages 1 Transversal F >> H Contrast KN Shim mode Standard Adjust with body coil Off Coffirm freq. adjustment Off <tr< td=""><td></td></tr<>	
Phase enc. dir.	
Rotation 0.00 deg SP3 Off Phase oversampling 0 % SP1 Off Slice oversampling 10.0 % SP7 Off Slices per slab 40 SP5 Off FoV read 160 mm Positioning mode FIX FoV phase 100.0 % Positioning mode FIX Slice thickness 3.00 mm Table position H TR 40 ms Table position 0 mm TE 1 5.10 ms MSMA S - C - T TE 2 10.34 ms Sagittal R >> L TE 3 15.66 ms Coronal A >> P Averages 1 Transversal F >> H Concatenations 1 Save uncombined Off Filter None Coil Combine Mode Sum of Squares Contrast Shim mode Standard Adjust with body coil Off Contrast Shim mode Adjust with body coil Off Confirm freq. adjustment	
Phase oversampling	
Slice oversampling	
Slices per slab	
FoV read	
FoV phase	
Slice thickness 3.00 mm TR 40 ms TE 1 5.10 ms TE 2 10.34 ms Averages 1 5.66 ms Averages 1 Save uncombined Coil Combine Mode Sum of Squares Concatenations 1 Save uncombined Off Filter None Coil elements KN Contrast MTC On Magn. preparation None Flip angle 10 deg Fat suppr. Water excit. normal Water suppr. Water suppr. None SWI Off Averaging mode Short term Reconstruction Magn./Phase Table position H Table position O mm Table position H Table position O magn. Demosition None Sagittal R >> L Coronal A >> P Transversal F >> H Save uncombined Coil Combine Mode Sum of Squares Auto Coil Select Default Shim mode Adjust with body coil Confirm freq. adjustment Adjustment Tolerance Auto Adjust wolume Position Position R20.3 A40.7 Ho.0 Orientation T > C12.4 Rotation O.00 deg	
TR	
TR 40 ms Table position 0 mm TE 1 5.10 ms MSMA S - C - T TE 2 10.34 ms Sagittal R >> L TE 3 15.66 ms Coronal A >> P Averages 1 Transversal F >> H Concatenations 1 Save uncombined Off Filter None Coil Combine Mode Sum of Squares Coil elements KN Auto Coil Select Default Contrast Shim mode Standard MTC On Adjust with body coil Off Confirm freq. adjustment Off Assume Silicone Off Fat suppr. Water excit. normal Adjust with body coil Off Y Ref. amplitude 1H 0.000 V Adjust ment Tolerance Auto Adjust volume Position R20.3 A40.7 Ho.0 Averaging mode Short term Orientation T > C12.4 Reconstruction Magn./Phase Rotation 0.00 deg	
TE 1 5.10 ms MSMA S - C - T TE 2 10.34 ms Sagittal R >> L TE 3 15.66 ms Coronal A >> P Averages 1 Transversal F >> H Concatenations 1 Save uncombined Off Filter None Coil Combine Mode Sum of Squares Coil elements KN Auto Coil Select Default Contrast Shim mode Standard Adjust with body coil Off Confirm freq. adjustment Off Assume Silicone Off Pat suppr. Water excit. normal Ref. amplitude 1H 0.000 V Adjust wolume Adjust volume Position R20.3 A40.7 Ho.0 Averaging mode Short term Orientation T > C12.4 Reconstruction Magn./Phase Rotation 0.00 deg	
TE 2 10.34 ms TE 3 15.66 ms Averages 1 Transversal F >> H Concatenations 1 Sagittal R >> E Coronal A >> P Transversal F >> H Save uncombined Off Coil Combine Mode Sum of Squares Auto Coil Select Default Contrast MTC On Magn. preparation None Flip angle 10 deg Fat suppr. Water suppr. Water suppr. SWI Off Averaging mode Short term Averaging mode Reconstruction Magn./Phase Sagittal R >> L Coronal A >> P Transversal F >> H Save uncombined Off Coil Combine Mode Sum of Squares Auto Coil Select Default Shim mode Adjust with body coil Off Confirm freq. adjustment Off Assume Silicone Off ? Ref. amplitude 1H 0.000 V Adjust volume Position R20.3 A40.7 H0.0 Orientation T > C12.4 Rotation 0.00 deg	
TE 3 15.66 ms Averages 1 Concatenations 1 Filter None Coil elements KN Contrast MTC On Magn. preparation Flip angle Fat suppr. Water suppr. Water suppr. SWI Off Averaging mode Averaging mode Reconstruction TE 3 15.66 ms 15.66 ms Transversal F >> H Save uncombined Off Coil Combine Mode Sum of Squares Auto Coil Select Default Shim mode Adjust with body coil Off Confirm freq. adjustment Off Assume Silicone Off ? Ref. amplitude 1H 0.000 V Adjust volume Position R20.3 A40.7 H0.0 Orientation T > C12.4 Rotation 0.00 deg	
Averages 1 Concatenations 1 Filter None Coil elements KN Contrast MTC On Magn. preparation Flip angle 10 deg Fat suppr. Water suppr. Water suppr. SWI Off Averaging mode Reconstruction Transversal F >> H Save uncombined Off Coil Combine Mode Sum of Squares Auto Coil Select Default Shim mode Adjust with body coil Off Confirm freq. adjustment Off Assume Silicone Off Resonstruction Tolerance Auto Adjust volume Position Resonstruction Toleration T > C12.4 Rotation Orientation 0.000 deg	
Concatenations Filter None Coil elements KN Contrast Contrast MTC Magn. preparation Flip angle Fat suppr. Water suppr. SWI Off Averaging mode Reconstruction Magn./Phase Save uncombined Coil Combine Mode Sum of Squares Auto Coil Select Default Shim mode Adjust with body coil Confirm freq. adjustment Off Assume Silicone ? Ref. amplitude 1H 0.000 V Adjust wolume Position Revaluation Retaluation Sum of Squares Coil Combine Mode Sum of Squares Auto Coil Combine Mode Sum of Squares Coil Combine Mode Sum of Squares Auto Coil Combine Mode Sum of Squares Auto Coil Select Adjust with body coil Confirm freq. adjustment Off Result at the coil Select Adjust with body coil Confirm freq. adjustment Off Assume Silicone ? Ref. amplitude 1H 0.000 V Adjust wolume Position Position Revaluation T > C12.4 Rotation Ono deg	
Filter None Coil Combine Mode Sum of Squares Auto Coil Select Default Contrast Shim mode Adjust with body coil Off Confirm freq. adjustment Off Assume Silicone Off Pat suppr. Water suppr. None SWI Off Averaging mode Swill Off Assume Short term Reconstruction Magn./Phase Coil Combine Mode Sum of Squares Default Coil Combine Mode Sum of Squares Default Coil Combine Mode Sum of Squares Default Auto Coil Select Default Coil Combine Mode Sum of Squares Default Adjust with body coil Off Adjust with body coil Off Assume Silicone Off Passume Silicone Off Passume Silicone Adjustment Tolerance Auto Adjust volume Position R20.3 A40.7 H0.0 Orientation T > C12.4 Rotation O.000 deg	
Coil elements KN	ic.
Contrast MTC	3
MTC On Adjust with body coil Off Magn. preparation None Confirm freq. adjustment Off Flip angle 10 deg Assume Silicone Off Fat suppr. Water excit. normal ? Ref. amplitude 1H 0.000 V Water suppr. None Adjust ment Tolerance Auto SWI Off Adjust volume Position R20.3 A40.7 H0.0 Averaging mode Short term Orientation T > C12.4 Reconstruction Magn./Phase Rotation 0.00 deg	
Magn. preparation Flip angle Fat suppr. Water suppr. SWI Off Averaging mode Reconstruction Magn./Phase Confirm freq. adjustment Assume Silicone Off Assume Silicone Off Assume Silicone Position Assume Silicone Off Adjustment Tolerance Adjustment Tolerance Adjust volume Position Orientation T > C12.4 Rotation Off Rotation Off Assume Silicone Off Off Position Orientation T > C12.4 Rotation Orion deg	
Flip angle 10 deg Assume Silicone Off Fat suppr. Water excit. normal ? Ref. amplitude 1H 0.000 V Water suppr. None Adjustment Tolerance Auto SWI Off Averaging mode Short term Position R20.3 A40.7 H0.0 Reconstruction Magn./Phase Rotation 0.00 deg	
Flip angle 10 deg Assume Silicone Off Fat suppr. Water excit. normal ? Ref. amplitude 1H 0.000 V Water suppr. None Adjustment Tolerance Auto SWI Off Adjust volume Averaging mode Short term Position R20.3 A40.7 H0.0 Reconstruction Magn./Phase Rotation 0.00 deg	
Water suppr. None Adjustment Tolerance Auto SWI Off Adjust volume Averaging mode Short term Position R20.3 A40.7 H0.0 Reconstruction Magn./Phase Rotation 0.00 deg	
Water suppr. None Adjustment Tolerance Auto SWI Off Adjust volume Position R20.3 A40.7 H0.0 Averaging mode Short term Orientation T > C12.4 Reconstruction Magn./Phase Rotation 0.00 deg	
SWI Off Adjust volume Position R20.3 A40.7 H0.0 Averaging mode Short term Orientation T > C12.4 Reconstruction Magn./Phase Rotation 0.00 deg	
Averaging mode Short term Position R20.3 A40.7 H0.0 Position T > C12.4 Reconstruction Magn./Phase Rotation 0.00 deg	
Averaging mode Short term Orientation T > C12.4 Reconstruction Magn./Phase Rotation 0.00 deg	0.0
Reconstruction Magn./Phase Rotation 0.00 deg	
Measurements 1 R >> L 160 mm	
Multiple series Each measurement A >> P 160 mm	
Resolution	
Phase resolution 75 % 1st Signal/Mode None	
Slice resolution 100 % Segments 1	
Phase partial Fourier Off	
Slice partial Fourier Off Tagging None	
Interpolation Off Dark blood Off	
PAT mode GRAPPA Resp. control Off	
Appel factor DE	
Det liere DE	
Appl feator 2D	
Matrix Cail Mada Auto (Tripla)	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Reference scan mode Integrated	

Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Maplt	None
Contrasts	3

Sequence

009401100	
Introduction	On
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth 1	220 Hz/Px
Bandwidth 2	220 Hz/Px
Bandwidth 3	220 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Readout mode	Bipolar
Allowed delay	0 s
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

\\USER\Yongsheng\projects\NIH_R61NS119434_CHEN_V2\thigh_MTR_OFF TA: 3:10 PAT: 2 Voxel size: 0.8×0.6×3.0 mm Rel. SNR: 1.00 SIEMENS: gre

Prio Recon Before measurement After measurement Load to viewer Inline movie Auto store images Load to stamp segments	Off On	Reference scan mode Image Filter Distortion Corr.	Integrated Off
After measurement Load to viewer Inline movie Auto store images Load to stamp segments			_
Load to viewer Inline movie Auto store images Load to stamp segments			_
Inline movie Auto store images Load to stamp segments			Off
Auto store images Load to stamp segments	Off	Prescan Normalize	Off
Load to stamp segments	On	Normalize	Off
	Off	B1 filter	Off
I and impaged to graphic	Off	Raw filter	Off
Load images to graphic	Oli		Off
segments	0"	Elliptical filter	Oli
Auto open inline display	Off	Geometry	
Start measurement without	On	Multi-slice mode	Interleaved
further preparation		Series	Interleaved
Wait for user to start	Off		
Start measurements	single	Saturation mode	Standard
Routine		Special sat.	None
Slab group 1			
Slabs	1	Tim CT mode	Off
Dist. factor	20 %	Cyatam	
Position	R20.3 A40.7 H0.0	System	0#
Orientation	T > C12.4	Body	Off
Phase enc. dir.	1 > C12.4 A >> P	KN	On O"
		SP4	Off
Rotation	0.00 deg	SP2	Off
Phase oversampling	0 %	SP8	Off
Slice oversampling	10.0 %	SP6	Off
Slices per slab	40	SP3	Off
FoV read	160 mm	SP1	Off
FoV phase	100.0 %	SP7	Off
Slice thickness	3.00 mm	SP5	Off
TR	40 ms		—
TE 1	5.10 ms	Positioning mode	FIX
TE 2	10.34 ms	Table position	Н
TE 3	15.66 ms	Table position	0 mm
TE 4	20.98 ms	MSMA	S - C - T
TE 5	26.30 ms	Sagittal	R >> L
TE 6	31.62 ms	Coronal	A >> P
Averages	1	Transversal	F >> H
Concatenations	1	Save uncombined	Off
Filter	None	Coil Combine Mode	Sum of Squares
Coil elements	KN	Auto Coil Select	Default
		China mada	Ctondord
Contrast		Shim mode	Standard
MTC	Off	Adjust with body coil	Off
Magn. preparation	None	Confirm freq. adjustment	Off
Flip angle	10 deg	Assume Silicone	Off
Fat suppr.	Water excit. normal	? Ref. amplitude 1H	0.000 V
Water suppr.	None	Adjustment Tolerance	Auto
SWI	Off	Adjust volume	
		Position	R20.3 A40.7 H0.0
Averaging mode	Short term	Orientation	T > C12.4
Reconstruction	Magn./Phase	Rotation	0.00 deg
Measurements	1	R >> L	160 mm
Multiple series	Each measurement	A >> P	160 mm
Resolution		F >> H	120 mm
Base resolution	256	 Dhysio	
Phase resolution	75 %	Physio	Naga
Slice resolution	75 % 100 %	1st Signal/Mode	None
		Segments	1
Phase partial Fourier	Off Off	Tagging	None
Ciliaa mawii-l (Terri)	Off	Dark blood	Off
Slice partial Fourier	Off	שמוג טוטטט	Oil
Slice partial Fourier Interpolation	Oil		
Interpolation		Resp. control	Off
	GRAPPA 2	Resp. control	Off

	Subtract Liver registration Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Time Save original images	Off
	Wash - In Wash - Out	Off Off
	TTP	Off
	PEI	Off
	MIP - time	Off
	MapIt	None
	Contrasts	6
•	Sequence	
	Introduction	On
	Dimension	3D
	Elliptical scanning	Off
	Phase stabilisation	Off
	Asymmetric echo	Allowed
	Bandwidth 1	220 Hz/Px
	Bandwidth 2	220 Hz/Px
	Bandwidth 3	220 Hz/Px
		220 HZ/FX
	Bandwidth 4	220 Hz/Px
	Bandwidth 4 Bandwidth 5	
		220 Hz/Px
	Bandwidth 5	220 Hz/Px 220 Hz/Px
	Bandwidth 5 Bandwidth 6 Flow comp. 1 Flow comp. 2	220 Hz/Px 220 Hz/Px 220 Hz/Px
	Bandwidth 5 Bandwidth 6 Flow comp. 1 Flow comp. 2 Flow comp. 3	220 Hz/Px 220 Hz/Px 220 Hz/Px No No No
	Bandwidth 5 Bandwidth 6 Flow comp. 1 Flow comp. 2 Flow comp. 3 Flow comp. 4	220 Hz/Px 220 Hz/Px 220 Hz/Px No No No
	Bandwidth 5 Bandwidth 6 Flow comp. 1 Flow comp. 2 Flow comp. 3 Flow comp. 4 Flow comp. 5	220 Hz/Px 220 Hz/Px 220 Hz/Px No No No No
	Bandwidth 5 Bandwidth 6 Flow comp. 1 Flow comp. 2 Flow comp. 3 Flow comp. 4 Flow comp. 5 Flow comp. 6	220 Hz/Px 220 Hz/Px 220 Hz/Px No No No No No No No
	Bandwidth 5 Bandwidth 6 Flow comp. 1 Flow comp. 2 Flow comp. 3 Flow comp. 4 Flow comp. 5 Flow comp. 6 Readout mode	220 Hz/Px 220 Hz/Px 220 Hz/Px No
	Bandwidth 5 Bandwidth 6 Flow comp. 1 Flow comp. 2 Flow comp. 3 Flow comp. 4 Flow comp. 5 Flow comp. 6	220 Hz/Px 220 Hz/Px 220 Hz/Px No No No No No No No

Normal

Fast Slab-sel. On

RF pulse type

Gradient mode Excitation RF spoiling

 $\verb|\USER\Yongsheng\projects\NIH_R61NS119434_CHEN_V2\thigh_MTsat_pdw| \\$

		0.6×3.0 mm Rel. SNR: 1.00	SIEMENS: gre
_		Image Filter	Off
Properties		—— Distortion Corr.	Off
Prio Recon	Off	Prescan Normalize	Off
Before measurement		Normalize	Off
After measurement		B1 filter	Off
Load to viewer	On		
Inline movie	Off	Raw filter	Off
Auto store images	On	Elliptical filter	Off
Load to stamp segments	Off	Geometry	
Load images to graphic	Off	Multi-slice mode	Interleaved
segments	Oli	Series	Interleaved
	Off	Selies	
Auto open inline display		Saturation mode	Standard
Start measurement without	On	Special sat.	None
further preparation			
Wait for user to start	Off	Tim CT mode	Off
Start measurements	single	1 mill C1 mode	Oli
Routine		System	
Slab group 1		Body	Off
Slabs	1	KN	On
	1	SP4	Off
Dist. factor	20 %	SP2	Off
Position	R20.3 A40.7 H0.0	SP8	Off
Orientation	T > C12.4		
Phase enc. dir.	A >> P	SP6	Off
Rotation	0.00 deg	SP3	Off
Phase oversampling	0 %	SP1	Off
Slice oversampling	10.0 %	SP7	Off
Slices per slab	40	SP5	Off
FoV read	160 mm	Docitioning mode	FIV
FoV phase	100.0 %	Positioning mode	FIX
Slice thickness	3.00 mm	Table position	H
TR	20 ms	Table position	0 mm
		MSMA	S - C - T
TE 1	5.10 ms	Sagittal	R >> L
TE 2	10.34 ms	Coronal	A >> P
Averages	1	Transversal	F >> H
Concatenations	1	Save uncombined	Off
Filter	None	Coil Combine Mode	Sum of Squares
Coil elements	KN	Auto Coil Select	Default
Contract			
Contrast	0"	Shim mode	Standard
MTC	Off	Adjust with body coil	Off
Magn. preparation	None	Confirm freq. adjustment	Off
Flip angle	5 deg	Assume Silicone	Off
Fat suppr.	Water excit. normal	? Ref. amplitude 1H	0.000 V
Water suppr.	None	Adjustment Tolerance	Auto
SWI	Off	Adjust volume	
A comparing a control of	Chartter:	Position	R20.3 A40.7 H0.0
Averaging mode	Short term	Orientation	T > C12.4
Reconstruction	Magn./Phase	Rotation	0.00 deg
Measurements	1	R >> L	160 mm
Multiple series	Each measurement		
Resolution		A >> P	160 mm
	256	F >> H	120 mm
Base resolution	256	Physio	
Phase resolution	75 %	1st Signal/Mode	None
Slice resolution	100 %	Segments	1
Phase partial Fourier	Off		
Slice partial Fourier	Off	Tagging	None
Interpolation	Off	Dark blood	Off
DAT mode	CDADDA		
PAT mode	GRAPPA	Resp. control	Off
Accel. factor PE	2	Inline	
Ref. lines PE	24		Off
Accel. factor 3D	1	Subtract	Off Off
Matrix Coil Mode	Auto (Triple)	Liver registration	Off
Reference scan mode	Integrated	Std-Dev-Sag	Off
		Std-Dev-Cor	Off

Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Time Save original images	Off Off Off Off Off Off Off Off
Wash - In Wash - Out TTP PEI MIP - time	Off Off Off Off Off
MapIt Contrasts Sequence	None 2
Introduction Dimension Elliptical scanning Phase stabilisation Asymmetric echo Bandwidth 1 Bandwidth 2 Flow comp. 1 Flow comp. 2 Readout mode Allowed delay	On 3D Off Off Allowed 220 Hz/Px 220 Hz/Px No No No Bipolar 0 s
RF pulse type Gradient mode Excitation RF spoiling	Normal Fast Slab-sel. On

		x0.6×3.0 mm Rel. SNR: 1.00	SIEMENS: gre
.		Image Filter	Off
Properties		Distortion Corr.	Off
Prio Recon	Off	Prescan Normalize	Off
Before measurement		Normalize	Off
After measurement		B1 filter	Off
Load to viewer	On	1 -	
Inline movie	Off	Raw filter	Off
Auto store images	On	Elliptical filter	Off
Load to stamp segments	Off	Geometry	
Load images to graphic	Off	Multi-slice mode	Interleaved
segments	O.I.	Series	Interleaved
Auto open inline display	Off		
		Saturation mode	Standard
Start measurement without	On	Special sat.	None
further preparation	0"		
Wait for user to start	Off	Tim CT mode	Off
Start measurements	single	1 mode	Oli
Routine		System	
Slab group 1		Body	Off
Slabs	1	KN	On
	20 %	SP4	Off
Dist. factor		SP2	Off
Position	R20.3 A40.7 H0.0	SP8	Off
Orientation	T > C12.4	SP6	Off
Phase enc. dir.	A >> P	SP3	Off
Rotation	0.00 deg		
Phase oversampling	0 %	SP1	Off
Slice oversampling	10.0 %	SP7	Off
Slices per slab	40	SP5	Off
FoV read	160 mm	Positioning mode	FIX
FoV phase	100.0 %		H
Slice thickness	3.00 mm	Table position	
TR	20 ms	Table position	0 mm
TE 1	5.10 ms	MSMA	S-C-T
		Sagittal	R >> L
TE 2	10.34 ms	Coronal	A >> P
Averages	1	Transversal	F >> H
Concatenations	1	Save uncombined	Off
Filter	None	Coil Combine Mode	Sum of Squares
Coil elements	KN	Auto Coil Select	Default
Contrast			
	0#	Shim mode	Standard
MTC	Off	Adjust with body coil	Off
Magn. preparation	None	Confirm freq. adjustment	Off
Flip angle	22 deg	Assume Silicone	Off
Fat suppr.	Water excit. normal	? Ref. amplitude 1H	0.000 V
Water suppr.	None	Adjustment Tolerance	Auto
SWI	Off	Adjust volume	
Avoraging	Chart to	Position	R20.3 A40.7 H0.0
Averaging mode	Short term	Orientation	T > C12.4
Reconstruction	Magn./Phase	Rotation	0.00 deg
Measurements	1	R >> L	160 mm
Multiple series	Each measurement		
Resolution		A >> P	160 mm
	256	F >> H	120 mm
Base resolution	256	Physio	
Phase resolution	75 %	1st Signal/Mode	None
Slice resolution	100 %	Segments	1
Phase partial Fourier	Off	·····	· · · · · · · · · · · · · · · · · · ·
Slice partial Fourier	Off	Tagging	None
Interpolation	Off	Dark blood	Off
DAT mode	CDADDA		
PAT mode	GRAPPA	Resp. control	Off
Accel. factor PE	2	Inline	
Ref. lines PE	24		Off
Accel. factor 3D	1	Subtract	Off Off
Matrix Coil Mode	Auto (Triple)	Liver registration	Off
Reference scan mode	Integrated	Std-Dev-Sag	Off
		Std-Dev-Cor	Off

Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Time Save original images	Off Off Off Off Off Off Off Off
Wash - In Wash - Out TTP PEI MIP - time	Off Off Off Off Off
MapIt Contrasts Sequence	None 2
Introduction Dimension Elliptical scanning Phase stabilisation Asymmetric echo Bandwidth 1 Bandwidth 2 Flow comp. 1 Flow comp. 2 Readout mode Allowed delay	On 3D Off Off Allowed 220 Hz/Px 220 Hz/Px No No Bipolar 0 s
RF pulse type Gradient mode Excitation	Normal Fast Slab-sel.

On

RF spoiling

\\USER\Yongsheng\projects\NIH_R61NS119434_CHEN_V2\thigh_PDW

TA: 1:15 PAT: 2 Voxel size: 0.6×0.6×3.0 mm Rel. SNR: 1.00 SIEMENS: gre			
		Distortion Corr.	Off
Properties		Prescan Normalize	Off
Prio Recon	Off	Normalize	Off
Before measurement		B1 filter	Off
After measurement		Raw filter	Off
Load to viewer	On	Elliptical filter	Off
Inline movie	Off	•	Oli
Auto store images	On	Geometry	
Load to stamp segments	Off	Multi-slice mode	Interleaved
Load images to graphic	Off	Series	Interleaved
segments		Saturation mode	Standard
Auto open inline display	Off		Standard
Start measurement without	On	Special sat.	None
further preparation		T: OT 1	0"
Wait for user to start	Off	Tim CT mode	Off
Start measurements	single	System	
Routine		Body	Off
		—— кN	On
Slab group 1	1	SP4	Off
Slabs	1	SP2	Off
Dist. factor	20 %	SP8	Off
Position	R20.3 A40.7 H0.0	SP6	Off
Orientation	T > C12.4	SP3	Off
Phase enc. dir.	A >> P	SP1	Off
Rotation	0.00 deg	SP7	Off
Phase oversampling	0 %	SP5	Off
Slice oversampling	10.0 %		
Slices per slab	40	Positioning mode	FIX
FoV read	160 mm	Table position	Н
FoV phase	100.0 %	Table position	0 mm
Slice thickness	3.00 mm	MSMA	S - C - T
TR	12.0 ms	Sagittal	R >> L
TE	5.10 ms	Coronal	A >> P
Averages	1	Transversal	F >> H
Concatenations	1	Save uncombined	Off
Filter	None	Coil Combine Mode	Adaptive Combine
Coil elements	KN	Auto Coil Select	Default
Contrast		Shim mode	Standard
MTC	Off	Adjust with body coil	Off
Magn. preparation	None	Confirm freq. adjustment	Off
Flip angle	4 deg	Assume Silicone	Off
Fat suppr.	None	? Ref. amplitude 1H	0.000 V
Water suppr.	None	Adjustment Tolerance	Auto
SWI	Off	Adjust volume	Auto
		Position	R20.3 A40.7 H0.0
Averaging mode	Short term	Orientation	T > C12.4
Reconstruction	Magn./Phase	Rotation	0.00 deg
Measurements	1	R >> L	160 mm
Multiple series	Each measurement	A >> P	160 mm
Resolution		F >> H	120 mm
Base resolution	256	I	120 11111
Phase resolution	100 %	Physio	
Slice resolution	100 %	1st Signal/Mode	None
Phase partial Fourier	Off	Segments	1
Slice partial Fourier	Off	Tagging	None
Interpolation	Off	Dark blood	Off
PAT mode	GRAPPA	Resp. control	Off
Accel. factor PE	2	Inline	
Ref. lines PE	24	Subtract	Off
Accel. factor 3D	1 Auto (Triplo)	Liver registration	Off
Matrix Coil Mode	Auto (Triple)	Std-Dev-Sag	Off
Reference scan mode	Integrated	Std-Dev-Gag Std-Dev-Cor	Off
Image Filter	Off	Std-Dev-Tra	Off
		1	

Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Time Save original images	Off Off Off Off Off On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1
Sequence	0.5
Introduction Dimension Elliptical scanning Phase stabilisation Asymmetric echo Bandwidth Flow comp. Allowed delay	On 3D Off Off Allowed 420 Hz/Px Yes 0 s
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

	• • • •	:0.6×3.0 mm Rel. SNR: 1.00	SIEMENS: gre
		Distortion Corr.	Off
Properties		Prescan Normalize	Off
Prio Recon	Off	Normalize	Off
Before measurement		B1 filter	Off
After measurement	0:-	Raw filter	Off
Load to viewer	On Off	Elliptical filter	Off
Inline movie Auto store images	On	Geometry	
Load to stamp segments	Off	Multi-slice mode	Interleaved
Load images to graphic	Off	Series	Interleaved
segments	.		
Auto open inline display	Off	Saturation mode	Standard
Start measurement without	On	Special sat.	None
further preparation		Tim CT mode	O#
Wait for user to start	Off	Tim CT mode	Off
Start measurements	single	System	
Routine		Body	Off
Slab group 1		— KN	On
Slabs	1	SP4	Off
Dist. factor	20 %	SP2 SP8	Off Off
Position	R20.3 A40.7 H0.0	SP6	Off
Orientation	T > C12.4	SP3	Off
Phase enc. dir.	A >> P	SP1	Off
Rotation	0.00 deg	SP7	Off
Phase oversampling	0 %	SP5	Off
Slice oversampling Slices per slab	10.0 % 40		
FoV read	160 mm	Positioning mode	FIX
FoV phase	100.0 %	Table position	H
Slice thickness	3.00 mm	Table position MSMA	0 mm S - C - T
TR	12.0 ms	Sagittal	R >> L
TE	5.10 ms	Coronal	A >> P
Averages	1	Transversal	F >> H
Concatenations	1	Save uncombined	Off
Filter	None	Coil Combine Mode	Adaptive Combine
Coil elements	KN	Auto Coil Select	Default
Contrast		Shim mode	Standard
MTC	Off	Adjust with body coil	Off
Magn. preparation	None	Confirm freq. adjustment	Off
Flip angle	17 deg	Assume Silicone	Off
Fat suppr.	None	? Ref. amplitude 1H	0.000 V
Water suppr.	None	Adjustment Tolerance	Auto
SWI	Off	Adjust volume	D00 0 440 T1/2 2
Averaging mode	Short term	Position	R20.3 A40.7 H0.0
Reconstruction	Magn./Phase	Orientation Rotation	T > C12.4
Measurements	1 .	Rotation R >> L	0.00 deg 160 mm
Multiple series	Each measurement	A >> P	160 mm
Resolution		F >> H	120 mm
Base resolution	256	I	
Phase resolution	100 %	Physio	Nana
Slice resolution	100 %	1st Signal/Mode	None
Phase partial Fourier	Off	Segments	1
Slice partial Fourier	Off	Tagging	None
Interpolation	Off	Dark blood	Off
PAT mode	GRAPPA	Resp. control	Off
Accel. factor PE	2	'	5
Ref. lines PE	24	Inline	0"
Accel. factor 3D	1	Subtract	Off
Matrix Coil Mode	Auto (Triple)	Liver registration	Off
Reference scan mode	Integrated	Std-Dev-Sag Std-Dev-Cor	Off Off
Image Filter	Off	Std-Dev-Tra	Off
		0.0 000 110	J

Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Time Save original images	Off Off Off Off On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1
Introduction Dimension Elliptical scanning Phase stabilisation Asymmetric echo Bandwidth Flow comp. Allowed delay	On 3D Off Off Allowed 420 Hz/Px Yes 0 s
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

\\USER\Yongsheng\projects\NIH_R61NS119434_CHEN_V2\thigh_ep2d_diff20_new TA: 8:46 PAT: 3 Voxel size: 1.3×1.3×6.0 mm Rel. SNR: 1.00 SIEMENS: ep2d_diff

Properties		Special sat.	None
Prio Recon	Off	System	
Before measurement		•	Off
After measurement		Body KN	
Load to viewer	On		On O#
Inline movie	Off	SP4	Off
Auto store images	On	SP2	Off
Load to stamp segments	Off	SP8	Off
Load images to graphic	Off	SP6	Off
segments		SP3	Off
Auto open inline display	Off	SP1	Off
Start measurement without	On	SP7	Off
further preparation	3.1	SP5	Off
Wait for user to start	Off	Desitioning mode	FIX
Start measurements	single	Positioning mode	
Start measurements	Sirigle	Table position	H
Routine		Table position	0 mm
Slice group 1		- MSMA	S-C-T
Slices	16	Sagittal	R >> L
Dist. factor	0 %	Coronal	A >> P
Position	R20.3 A40.7 H0.0	Transversal	F >> H
Orientation	T > C12.4	Coil Combine Mode	Adaptive Combine
Phase enc. dir.	A >> P	Auto Coil Select	Default
Rotation	0.00 deg	Shim mode	Standard
Phase oversampling	0.00 deg 0 %		
FoV read	160 mm	Adjust with body coil	Off
		Confirm freq. adjustment	Off
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	6.0 mm	? Ref. amplitude 1H	0.000 V
TR	4000 ms	Adjustment Tolerance	Auto
TE	93 ms	Adjust volume	
Averages	6	Position	R20.3 A40.7 H0.0
Concatenations	1	Orientation	T > C12.4
Filter	None	Rotation	0.00 deg
Coil elements	KN	R >> L	160 mm
Contrast		A >> P	160 mm
MTC	Off	– F >> H	96 mm
	None	Dhysis	
Magn. preparation	SPAIR	Physio	N
Fat suppr.	SPAIR	1st Signal/Mode	None
Averaging mode	Long term	Resp. control	Off
Reconstruction	Magnitude	D:#	
Delay in TR	0 ms	Diff	MDDW
Multiple series	Off	Diffusion mode	MDDW
Pacalution		Diff. weightings	2
Resolution	400	_ b-value 1	0 s/mm²
Base resolution	128	b-value 2	800 s/mm²
Phase resolution	100 %	Diff. weighted images	On
Phase partial Fourier	6/8	Trace weighted images	On
Interpolation	Off	Average ADC maps	On
PAT mode	GRAPPA	Individual ADC maps	Off
		FA maps	On
Accel. factor PE	3	Mosaic	On
Ref. lines PE	78	Tensor	On
Matrix Coil Mode	Auto (Triple)	Noise level	15
Reference scan mode	Separate	Diff. directions	20
Distortion Corr.	Off	ı	_0
Prescan Normalize	Off	Sequence	
Raw filter	On	Introduction	On
		Bandwidth	1028 Hz/Px
Elliptical filter	Off	Free echo spacing	Off
Hamming	Off	Echo spacing	1.1 ms
Geometry			
		EPI factor	128
Multi-slice mode	Interleaved		
Multi-slice mode Series	Interleaved Interleaved	RF pulse type Gradient mode	Normal

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