\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\localizer
TA: 0:13 PAT: Off Voxel size: 1.1×1.0×7.0 mm Rel. SNR: 1.00 SIEMENS: gre

		Phase partial Fourier	Off
Properties		Phase partial Fourier Interpolation	On
Prio Recon	Off		
Before measurement		PAT mode	None
After measurement		Image Filter	Off
Load to viewer	On Off	Distortion Corr.	Off
Inline movie	Off	Prescan Normalize	Off
Auto store images	On Off	Normalize	Off
Load to stamp segments Load images to graphic	Off	B1 filter	Off
segments	Oli	Raw filter	Off
Auto open inline display	Off	Elliptical filter	On
Start measurement without	On	Mode	Inplane
further preparation	0.11	Geometry	
Wait for user to start	Off	Multi-slice mode	Sequential
Start measurements	single	Series	Interleaved
ı	5g.5		
Routine		Saturation mode	Standard
Slice group 1	4	Special sat.	None
Slices Diet feeter	1 20 %		
Dist. factor Position		Table position	Н
	Isocenter Societal	Table position	0 mm
Orientation Phase enc. dir.	Sagittal A >> P	Inline Composing	Off
Rotation	A >> P 0.00 deg	Tim CT mode	Off
Slice group 2	o.oo aeg	I	U II
Slices	1	System	~~
Dist. factor	20 %	V32	Off
Position	Isocenter	A32	On
Orientation	Transversal	Positioning mode	REF
Phase enc. dir.	A >> P	MSMA	S-C-T
Rotation	0.00 deg	Sagittal	R >> L
Slice group 3	•	Coronal	A >> P
Slices	1	Transversal	F >> H
Dist. factor	20 %	Save uncombined	Off
Position	Isocenter	Coil Combine Mode	Adaptive Combine
Orientation	Coronal	AutoAlign	
Phase enc. dir.	R >> L	Auto Coil Select	Off
Rotation	0.00 deg	Chim made	Tung un
Phase oversampling	0 %	Shim mode	Tune up Off
FoV read	250 mm	Adjust with body coil Confirm freq. adjustment	Off
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	7.0 mm	? Ref. amplitude 1H	0.000 V
TR	8.6 ms	Adjustment Tolerance	Auto
TE	4.00 ms	Adjust volume	71010
Averages	2	Position	Isocenter
Concatenations Filter	3 Elliptical filter	Orientation	Transversal
Coil elements	Elliptical filter A32	Rotation	0.00 deg
Con elements	NUL	R >> L	350 mm
Contrast		A >> P	263 mm
TD	0 ms	F >> H	350 mm
MTC	Off	Physio	
Magn. preparation	None	1st Signal/Mode	None
Flip angle	20 deg	Segments	1
Fat suppr.	None		
Water suppr.	None	Tagging	None
SWI	Off	Dark blood	Off
Averaging mode	Short term	Resp. control	Off
Reconstruction	Magnitude	· ·	
Measurements	1	Inline	
Multiple series	Each measurement	Subtract	Off
Resolution		Liver registration	Off
Base resolution	256	Std-Dev-Sag	Off Off
Phase resolution	90 %	Std-Dev-Cor	Off
1		1/+	

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

_	0 9 4 6 1 1 0 0	
	Introduction	On
	Dimension	2D
	Phase stabilisation	Off
	Asymmetric echo	Allowed
	Bandwidth	320 Hz/Px
	Flow comp.	No
	RF pulse type	Normal
	Gradient mode	Normal
	Excitation	Slice-sel.
	RF spoiling	On

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\b1map_658_adj

TA: 1:14	Voxel size: 7.8×7.8×5.0 mm	Rel. SNR: 1.00 USER:	b1map_658
Properties		Positioning mode MSMA	REF S - C - T
Prio Recon	Off	Sagittal	8 - C - 1 R >> L
Before measurement		Coronal	A >> P
After measurement		Transversal	F >> H
Load to viewer	On	Save uncombined	Off
Inline movie	Off	Coil Combine Mode	Adaptive Combine
Auto store images	On	AutoAlign	
Load to stamp segments	Off	Auto Coil Select	Default
Load images to graphic	Off		
segments		Shim mode	Tune up
Auto open inline display	Off	Adjust with body coil	Off
Start measurement without	On	Confirm freq. adjustment	Off
further preparation		Assume Silicone	Off
Wait for user to start	Off	? Ref. amplitude 1H	0.000 V
Start measurements	single	Adjustment Tolerance	Auto
Routine		Adjust volume	
Slice group 1		Position	Isocenter
Slices	18	Orientation	Transversal
Dist. factor	100 %	Rotation	0.00 deg
Position	L0.0 A45.4 H10.6	R >> L	350 mm
Orientation	Transversal	A >> P	263 mm
Phase enc. dir.	A >> P	F >> H	350 mm
Rotation	0.00 deg	Composing	
FoV read	250 mm		
FoV phase	100.0 %	Sequence	
Slice thickness	5 mm	Contrasts	2
TR	2100 ms	Bandwidth	260.416667 Hz/Px
TE 1	14 ms	T1 Compensation	Mean T1
TE 2	14 ms	Mean T1	500.0 ms
Averages	1	Angles	1
Filter	None	Amplitude Weighting	Linear
Coil elements	A32	Scale Bar	Disabled
Contrast		Raw Data	Disabled
Flip angle 1	90 deg	•	
Flip angle 2	120 deg		
Flip angle 3	60 deg		
Flip angle 4	135 deg		
Flip angle 5	45 deg		
Measurements	1		
1	ı		
Resolution	22		
Base resolution Phase resolution	32 100 %		
Raw filter	Off		
Geometry			
Series	Interleaved		
Navigator 1			
Position	L1.8 P37.5 F9.1		
Orientation	T > C2.2		
Rotation	0.00 deg		
Base size phase	50 mm		
Base size read	50 mm		
Thickness	50 mm		
Table position	 Н		
Table position	0 mm		
Inline Composing	Off		
	- · ·		
System	0#		
V32	Off		

A32

On

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\mp2rage-wip900_Grappa3_PF6/8
TA: 9:38 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: tfl_wip900b17a

Properties		Distortion Corr. Mode	On 3D
Prio Recon	Off	Unfiltered images	On
Before measurement		Prescan Normalize	Off
After measurement	_	Raw filter	Off
Load to viewer	On	Elliptical filter	Off
Inline movie	Off	•	
Auto store images	On	Geometry	
Load to stamp segments	Off	Multi-slice mode	Single shot
Load images to graphic	Off	Series	Interleaved
segments			
Auto open inline display	Off	Table position	Н
Start measurement without	On	Table position	0 mm
further preparation		Inline Composing	Off
Wait for user to start	Off	System	
Start measurements	single	System	0#
Routine		V32 A32	Off On
Slab group 1		. A32	On
Slabs	1	Positioning mode	FIX
Dist. factor	50 %	MSMA	S - C - T
Position	L1.2 A37.4 F12.0	Sagittal	R >> L
Orientation	Sagittal	Coronal	A >> P
Phase enc. dir.	A >> P	Transversal	F >> H
Rotation	0.00 deg	Save uncombined	Off
Phase oversampling	0.00 deg 0 %	Coil Combine Mode	Sum of Squares
Slice oversampling	8.3 %	AutoAlign	
Slices per slab	192	Auto Coil Select	Default
FoV read	240 mm		
FoV read FoV phase	93.8 %	Shim mode	Tune up
Slice thickness	93.6 % 0.75 mm	Adjust with body coil	Off
TR	6000 ms	Confirm freq. adjustment	Off
TE	3.06 ms	Assume Silicone	Off
		? Ref. amplitude 1H	0.000 V
Averages	1	Adjustment Tolerance	Auto
Concatenations Filter	Distortion Corr (2D)	Adjust volume	
	Distortion Corr.(3D)	! Position	Isocenter
Coil elements	A32	! Orientation	Transversal
Contrast		! Rotation	0.00 deg
Magn. preparation	Non-sel. IR	! R >> L	350 mm
TI Ĭ	800 ms	! A >> P	263 mm
TI 2	2700 ms	! F >> H	350 mm
Flip angle 1	4 deg	Physio	
Flip angle 2	5 deg	1st Signal/Mode	None
Fat suppr.	None		
Water suppr.	None	Dark blood	Off
2nd Inversion Contrast	On	Dana annial	
		Resp. control	Off
Averaging mode	Long term	Composing	
Reconstruction	Magn./Phase		
Measurements	1	Sequence	
Multiple series	Each measurement	Introduction	On
Resolution		Dimension	3D
Base resolution	320	Elliptical scanning	Off
Phase resolution	100 %	Asymmetric echo	Off
Slice resolution	100 %	Contrasts	1
Phase partial Fourier	6/8	Bandwidth	240 Hz/Px
Slice partial Fourier	6/8	Flow comp.	No
Shoo partial i bullet	U, U	Echo spacing	7.4 ms
	GRAPPA	RF pulse type	Fast
PAT mode	OINALLA	. 131 10035 1705	i aəl
PAT mode Accel. factor PE	3		
		Gradient mode	Fast*
Accel. factor PE	3	Gradient mode Excitation	Fast* Non-sel.
Accel. factor PE Ref. lines PE	3 32	Gradient mode	Fast*
Accel. factor PE Ref. lines PE Accel. factor 3D	3 32 1	Gradient mode Excitation	Fast* Non-sel.

FID MoCo Logging	Off
FID Coil Phase Corr.	Off
LIN/PAR Swap	Off
Ext. INV Pulse	On
Flip Angle	700
Phase Filter	0 px
Uniform Image	On
Head Mask on UNI	Off
T1 Map	On
Complex Div. Image	Off
Denoise Weighting	150
FLAWS	Off

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20
TA: 0:22 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

		Elliptical filter	Off
Properties		Hamming	Off
Prio Recon	Off	1	
Before measurement		Geometry	
After measurement		Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On	Opecial Sat.	
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off	Curataira	
Start measurement without	On	System	0#
further preparation		V32	Off
Wait for user to start	On	A32	On
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S - C - T
		Sagittal	R >> L
Slab group 1 Slabs	1	Coronal	A >> P
Dist. factor	1 50 %	Transversal	F >> H
		Save uncombined	Off
Position	L0.0 P8.1 H31.4 C > T-42.3	Coil Combine Mode	Sum of Squares
Orientation	- · · · · · · · · · · · · · · · · · · ·	AutoAlign	
Phase enc. dir.	R >> L	Auto Coil Select	Default
Rotation	0.00 deg		
Phase oversampling	0 %	Shim mode	Standard
Slice oversampling	11.1 %	Adjust with body coil	Off
Slices per slab	72	Confirm freq. adjustment	Off
FoV read	192 mm	Assume Silicone	Off
FoV phase	100.0 %	? Ref. amplitude 1H	0.000 V
Slice thickness	0.80 mm	Adjustment Tolerance	Auto
TR	51 ms	Adjust volume	
TE	20 ms	! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! R >> L	120 mm
Coil elements	A32	! F >> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	Physic	
Flip angle	14 deg	Physio	None
Fat suppr.	Water excit. normal	1st Signal/Mode	None
		BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	3	1 .	
Delay in TR	0 ms	Sequence	0"
Multiple series	Off	Introduction	Off
Resolution		Dimension	3D
Base resolution	232	Reordering	Linear
Phase resolution	100 %	Contrasts	1
Slice resolution	100 %	Bandwidth	828 Hz/Px
Phase partial Fourier	6/8	Free echo spacing	Off
		Echo spacing	1.37 ms
Slice partial Fourier	6/8 Off	EPI factor	232
Interpolation	OII	RF pulse type	Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On
Accel. factor 3D	1	re spoiling	OII
Ref. lines 3D	24	use Ernst angle	On
Reference scan mode	Separate	Maxwell Correction	On
		log physio files	On
Distortion Corr.	Off	RF BWTP	22.6
Prescan Normalize	Off	bipolar water excite?	On
Raw filter	On	WE with 540 phase?	On
		1	

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 64

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\gre_field_mapping_3mm

Rel. SNR: 1.00

SIEMENS: gre_field_mapping

Voxel size: 2.0×2.0×3.0 mm

TA: 2:28

		Table position	0 mm
Properties		Inline Composing	Off
Prio Recon	Off		
Before measurement After measurement		System V32	Off
Load to viewer	On	A32	On
Inline movie	Off		
Auto store images	On	Positioning mode	FIX
Load to stamp segments	Off	MSMA	S - C - T
Load images to graphic	Off	Sagittal	R >> L
segments	-	Coronal	A >> P
Auto open inline display	Off	Transversal	F >> H
Start measurement without	On	Save uncombined	Off
further preparation		Coil Combine Mode	Adaptive Combine
Wait for user to start	Off	AutoAlign Auto Coil Select	 Default
Start measurements	single	Auto Coli Select	Delauit
Routine		Shim mode	Standard
Slice group 1		Adjust with body coil	Off
Slices	40	Confirm freq. adjustment	Off
Dist. factor	20 %	Assume Silicone	Off
Position	L0.0 P8.1 H31.4	? Ref. amplitude 1H	0.000 V
Orientation	C > T-42.3	Adjustment Tolerance	Auto
Phase enc. dir.	F >> H	Adjust volume	
Rotation	90.00 deg	! Position	L1.2 P14.6 H23.8
Phase oversampling	0 %	! Orientation	C > T-41.3
FoV read	256 mm	! Rotation	-90.00 deg
FoV phase	100.0 %	! R >> L	120 mm
Slice thickness	3.0 mm	! F >> H	138 mm
TR	574 ms	! A >> P	63 mm
TE 1	10.00 ms	Composing	
TE 2	11.02 ms		
Averages	1	Sequence	0"
Concatenations	1	Introduction	Off
Filter	None	Dimension	2D Off
Coil elements	A32	Asymmetric echo Contrasts	2
Contrast		Bandwidth	260 Hz/Px
MTC	Off	Flow comp.	Yes
Flip angle	45 deg		
Fat suppr.	None	RF pulse type	Normal
		Gradient mode	Fast
Averaging mode	Short term	RF spoiling	On
Reconstruction	Magn./Phase		
Measurements	1		
Multiple series	Off		
Resolution			
Base resolution	128		
Phase resolution	100 %		
Phase partial Fourier	Off		
Interpolation	Off		
Image Filter	Off		
Distortion Corr.	Off		
Prescan Normalize	Off		
Normalize	Off		
B1 filter	Off		
Raw filter	Off		
Elliptical filter	Off		
Geometry Multi-slice mode	Interleaved	<u>—</u>	
Series	Interleaved		
Special sat.	None		
Table position	Н		

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run01
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Proportion		Elliptical filter	Off
Properties Prio Recon	Off	—— Hamming	Off
Before measurement	Oli	Geometry	
After measurement		Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off		
Auto store images	On	Special sat.	None
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off	System	
Start measurement without	On	System V32	Off
further preparation	_	A32	On
Wait for user to start	On ·	A32	OII
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S - C - T
Slab group 1		Sagittal	R >> L
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode AutoAlign	Sum of Squares
Phase enc. dir.	R >> L	Auto Coil Select	Default
Rotation	0.00 deg		
Phase oversampling	0 %	Shim mode	Standard
Slice oversampling	11.1 % 72	Adjust with body coil	Off
Slices per slab FoV read	192 mm	Confirm freq. adjustment	Off
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	0.80 mm	? Ref. amplitude 1H	0.000 V
TR	51 ms	Adjustment Tolerance	Auto
TE	20 ms	Adjust volume ! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! R >> L	120 mm
Coil elements	A32	!F>> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	I Dhysis	
Flip angle	14 deg	Physio 1st Signal/Mode	None
Fat suppr.	Water excit. normal	•	None
		BOLD	
Averaging mode Reconstruction	Long term Magnitude	Motion correction	Off
Measurements	75	Spatial filter	Off
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
· ·	0.11	Dimension	3D
Resolution		Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
Slice resolution	100 %	Free echo spacing	Off
Phase partial Fourier Slice partial Fourier	6/8 6/8	Echo spacing	1.37 ms
Interpolation	Off	EPI factor	232
	∵ ⊓	RF pulse type	Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On
Accel. factor 3D	1		On.
Ref. lines 3D	24 Comparete	use Ernst angle Maxwell Correction	On On
Reference scan mode	Separate	log physio files	On On
Distortion Corr.	Off	RF BWTP	22.6
Prescan Normalize	Off	bipolar water excite?	On
Raw filter	On	WE with 540 phase?	On
		1	

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 64

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run02
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Pro Necon	Properties		Elliptical filter Hamming	Off Off
Alter measurement Load to viewer On Inline movie Off Auto store images Off Table position H Table position Off Table position H Table position Off Table position Off Table position H Table position Off Off Table position Off Off Table position Off	Prio Recon	Off	1	
Load to viewer			•	
Inline movie		0-		
Auto store images			Series	Interleaved
Table position			Special sat.	None
Load images to graphic segments Segments		_		
Segments				
Auto open inline display Off System System V32		Off		-
Start measurement without further preparation Wait for user to start		0"	Inline Composing	Off
Turther preparation Wait for user to start Start measurements Single			System	
Number Peps Number Num		On		Off
Name Stant measurements Single Positioning mode FIX				
Routine				
Slabs	Start measurements	single		
Siabs 1	Routine			
Slabs	Slab group 1	-		R >> L
Dist. factor		1		
Position	Dist. factor	50 %	Transversal	
Orientation C > T-42.3 Coil Combine Mode Auto Align Sum of Squares Phase enc. dir. R >> L Auto Coil Select Default Phase oversampling Slice oversampling Slic	Position	L0.0 P8.1 H31.4		
Notation		C > T-42.3		Sum of Squares
Phase oversampling	Phase enc. dir.	R >> L		
Phase oversampling	Rotation	0.00 dea	Auto Coil Select	Default
Slice oversampling			Chim made	
Slices per slab				- 1011 101011
FoV read				
FoV phase		192 mm		
Slice thickness 0.80 mm		100.0 %		
TR 51 ms Adjust volume Adjust volume TE 20 ms 4 djust volume ! Position L1.2 P14.6 H23.8 Averages 1 ! Position C > T-41.3 C > T-41.3 C > T-41.3 C > T-41.3 I Notation -90.00 deg F Notation -90.00 deg		0.80 mm		
TE		51 ms		Auto
Averages				1 1 2 D14 6 H22 0
Concatenations 1 Rotation -90.00 deg Filter None Rotation -90.00 deg Contrast Rotation -90.00 deg Rotation <		1		
Filter		1		
Contrast Solution Physio Physio Sequence		None		•
A >> P 63 mm A >> P A >> P 63 mm A A >> P A >> P 63 mm A A >> P A >> P 63 mm A A >> P A >> P 63 mm A A >> P A >> P 63 mm A A >> P A >> P 63 mm A A >> P A >> P A >> P A A >> P A >> P A >> P A A >> P A >> P A >> P A A >> P A >> P A >> P A A >> P A >> P A >> P A A >> P A >> Phase P		A32		-
MTC Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Physio Sequence Introduction Off Dimension Resolution Base resolution Phase resolution Phase partial Fourier Sice partial Fourier MTC Physio 1st Signal/Mode None Motion correction Spatial filter Off Spatial filter Off Sequence Introduction Dimension Resolution Bandwidth Bandwidth Sequence Contrasts 1 Bandwidth Free echo spacing Echo spacing Introduction Off Dimension Sequence Introduction Dimension Sequence Dimension Sequence Introduction Dimension Sequence Dimension Sequ	1			
Flip angle 14 deg Water excit. normal Averaging mode Long term Reconstruction Magnitude Measurements 75 Delay in TR 0 ms Multiple series Off Introduction Dimension 3D Resolution Base resolution 100 % Slice resolution 100 % Slice resolution 100 % Free echo spacing Dimension Off Spatial Fourier 6/8 Slice partial Fourier 6/8 Slice partial Fourier 6/8 Water excit. normal 1st Signal/Mode None Motion correction Off Spatial filter			! !	03 11111
Fat suppr. Water excit. normal BOLD Averaging mode			Physio	
Averaging mode Long term Reconstruction Magnitude Measurements 75 Delay in TR 0 ms Multiple series Off Resolution Base resolution Phase resolution Slice resolution Spatial filter Motion correction Spatial filter Motion correction Spatial filter Motion correction Spatial filter Off Spatial filter Off Dimension Sequence Introduction Dimension Reordering Contrasts 1 Bandwidth 828 Hz/Px Free echo spacing Off Echo spacing 1.37 ms	. •	· ·	1st Signal/Mode	None
Averaging mode Reconstruction Magnitude Resolution Resolution Base resolution Phase partial Fourier Sicc partial Fourier Addition correction Spatial filter Motion correction Spatial filter Sequence Introduction Off Dimension Requence Introduction Off Dimension Reordering Contrasts 1 Bandwidth 828 Hz/Px Free echo spacing Off Echo spacing 1.37 ms	Fat suppr.	Water excit. normal	, BOLD	
Reconstruction Magnitude Spatial filter Off Measurements 75 Delay in TR 0 ms Sequence Multiple series Off Resolution 3D Reordering Linear Contrasts 1 Phase resolution 100 % Bandwidth 828 Hz/Px Slice resolution 100 % Free echo spacing Off Phase partial Fourier 6/8 Silce resolution 6/8	Averaging mode	Long term		Off
Measurements75Delay in TR0 msSequenceMultiple seriesOffIntroductionOffResolutionDimension3DBase resolutionReorderingLinearPhase resolution100 %Bandwidth828 Hz/PxSlice resolution100 %Free echo spacingOffPhase partial Fourier6/8Echo spacing1.37 msSlice partial Fourier6/8Echo spacing1.37 ms				
Delay in TR 0 ms Multiple series Off Resolution Base resolution 232 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier 6/8 Plate Sequence Introduction Off Dimension 3D Reordering Linear Contrasts 1 Bandwidth 828 Hz/Px Free echo spacing Off Echo spacing 1.37 ms			Spatial filter	Oli
Multiple seriesOffIntroductionOffResolution3DBase resolution232ReorderingLinearPhase resolution100 %Bandwidth828 Hz/PxSlice resolution100 %Free echo spacingOffPhase partial Fourier6/8Echo spacing1.37 msSlice partial Fourier6/8Echo spacing1.37 ms			Sequence	
Resolution Base resolution Phase resolution Slice resolution Phase partial Fourier Slice partial Fourier Slice partial Fourier Base resolution 100 % Bandwidth Bandwidth Free echo spacing Echo spacing Echo spacing 1.37 ms	1		Introduction	
Base resolution 232 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier 6/8 Slice partial Fourier 6/8			Dimension	3D
Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier 6/8 Slice partial Fourier 6/8 Slice partial Fourier 6/8			Reordering	Linear
Slice resolution 100 % Free echo spacing Off Phase partial Fourier 6/8 Echo spacing 1.37 ms Slice partial Fourier 6/8				1
Phase partial Fourier 6/8 Echo spacing 1.37 ms Slice partial Fourier 6/8				828 Hz/Px
Slice partial Fourier 6/8				_
			Echo spacing	1.37 ms
I Internal Line Off I EDI forton 000			EDI fostor	
Interpolation Off EPI factor 232	interpolation	Off		
	PAT mode	GRAPPA		
Accel factor PE				
Det lines DE CO				
Ref. lines PE 96			KE SPOIIING	UII
Ref. lines 3D 24 use Ernst angle On			use Ernst angle	On
Reference scan mode Separate Maxwell Correction On				
log physio files On		·		
Distortion Corr. Off RF BWTP 22.6				
Prescan Normalize Off bipolar water excite? On				
Raw filter On WE with 540 phase? On	Raw filter	On		

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 64

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run03
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Properties		Elliptical filter - Hamming	Off Off
Prio Recon	Off		
Before measurement		Geometry	
After measurement		Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On	Opecial sat.	
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off		
Start measurement without	On	System	
further preparation		V32	Off
Wait for user to start	On	A32	On
Start measurements	single	Positioning mode	FIX
<u>I</u>	3 -	MSMA	S-C-T
Routine			8 - C - 1 R >> L
Slab group 1		Sagittal	
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0 %	Shim mode	Standard
Slice oversampling	11.1 %		- 13.1 13.1 S.
Slices per slab	72	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	Off
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	0.80 mm	? Ref. amplitude 1H	0.000 V
TR	51 ms	Adjustment Tolerance	Auto
TE		Adjust volume	
	20 ms	! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! R >> L	120 mm
Coil elements	A32	! F >> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	Dhysia	
Flip angle	14 deg	Physio	
Fat suppr.	Water excit. normal	1st Signal/Mode	None
	·····	BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75		
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
Deschation		Dimension	3D
Resolution	000	Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
Slice resolution	100 %	Free echo spacing	Off
Phase partial Fourier	6/8	Echo spacing	1.37 ms
Slice partial Fourier	6/8		
Interpolation	Off	EPI factor	232
DAT mode	CDADDA	RF pulse type	Normal
PAT mode	GRAPPA •	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE Accel. factor 3D	96	RF spoiling	On
I ACCOL TACTOR 311	1	uno Ernot opala	On
		use Ernst angle	On
Ref. lines 3D	24		On
	24 Separate	Maxwell Correction	On
Ref. lines 3D Reference scan mode	Separate	Maxwell Correction log physio files	On
Ref. lines 3D Reference scan mode Distortion Corr.	Separate Off	Maxwell Correction log physio files RF BWTP	On 22.6
Ref. lines 3D Reference scan mode	Separate	Maxwell Correction log physio files	On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 64

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run04
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Proceedings	Properties	0,4	Elliptical filter Hamming	Off Off
Atter measurement Load to viewer On Inline movie Off Special sat. None	Prio Recon	Off		
Load to viewer On Series Interfeaved			•	late de sus d
Inline movie		0.5		
Auto store images			Series	Interieaved
Table position			Special sat.	None
Load images to graphic segments Auto open inline display Start measurement without further preparation On System V32 Off A32 On A33 On A33 On A34		_		
Segments				
Auto open inline display Start measurement without On System V32		Off		_
System System Wait for user to start On Single A32 Off A32 On		0"	Inline Composing	Off
Vail for user to start Vail for user to st			System	
Nation Preparation Nation Natio		On		Off
Note		0.5		
Routine		_		
Slab group 1	Start measurements	single		
Slabs	Routine			
Slabs	Slab group 1			
Desition		1		
Cost	Dist. factor	50 %		
Orientation C > T-42.3 Coil Combine Mode Sum of Squares Phase enc. dir. R >> L AutoAlign — Rotation 0.00 deg Auto Coil Select Default Phase oversampling 11.1 % Shim mode Standard Slice oversampling 11.1 % Shim mode Standard Slice oversampling 11.1 % Adjust with body coil Off FoV read 192 mm Assume Silicone Off FoV phase 100.0 % ? Ref. amplitude 11 0.000 V Slice thickness 0.80 mm Adjust with body coil Off TE 20 ms Adjust volume 2 Ref. amplitude 11 0.000 V Averages 1 1 Position L1.2 P14.6 H23.8 C - T-41.3 Concatenations 1 1 Position L1.2 P14.6 H23.8 C - T-41.3 C - T-41.3 C - T-41.3 D - T-41.3 D resition L1.2 P14.6 H23.8 A resition A resition<	Position	L0.0 P8.1 H31.4		
Rotation	Orientation	C > T-42.3		Sum of Squares
Phase oversampling 0 % Shim mode Standard	Phase enc. dir.	R >> L		
Phase oversampling Slice oversampling Slice oversampling Slice oversampling Slice sper slab 72 Confirm freq, adjust with body coil Off	Rotation	0.00 deg	Auto Coil Select	Default
Silice oversampling 11.1 % Adjust with body coil Off			Shim mada	Standard
Slices per slab		11.1 %		- 13.1 13.1 S.
FoV read		72		
FoV phase 100.0 % 2		192 mm		
Slice thickness	FoV phase	100.0 %		
TR		0.80 mm		
TE	TR	51 ms		Adio
Averages	TE	20 ms		I 1 2 P1/ 6 H23 8
Concatenations	Averages	1		
R R R R R R R R R R		1		
F > H	Filter	None		<u> </u>
A >> P	Coil elements	A32		-
MTC Flip angle Fat suppr. Averaging mode Reconstruction Magnitude Masurements Delay in TR Delay in TR Delay in TR Dehase resolution Slice resolution Slice partial Fourier Sequence Introduction Off Dimension Sequence Introduction Off Dimension Slore Sequence Introduction Off Dimension Slice partial Fourier Sequence Introduction Off Dimension Slore Sequence Introduction Off Dimension Slore Sequence Introduction Off Dimension Slore Sequence Introduction Off Delay introduction Slore Sequence Introduction Off Dimension Slore S	Contract			
Flip angle		0"		00 111111
Fat suppr. Water excit. normal Averaging mode Reconstruction Magnitude Spatial filter Off Measurements 75 Delay in TR 0 ms Multiple series Off Resolution Base resolution 100 % Slice resolution 100 % Slice partial Fourier 6/8 Interpolation Off PAT mode GRAPPA Accel. factor PE Ref. lines PE Accel. factor 3D Ref. lines 3D Reference scan mode Separate Averaging mode Long term BOLD Motion correction Off Spatial filter Off Spatial filter Off Spatial filter Off Motion correction Off Spatial filter Off S				
Averaging mode	. •	· ·	1st Signal/Mode	None
Averaging mode Reconstruction Magnitude Reconstruction Magnitude Resolution Resolution Base resolution Phase resolution Phase partial Fourier Slice partial Fourier Slice partial Fourier Slice partial Fourier Slice partial Fourier Accel. factor PE Ref. lines PE Accel. factor 3D Reference scan mode Reconstruction Motion correction Spatial filter Motion correction Spatial filter Off Dimension Spatial filter Off Dimension Spatial filter Off Dimension Spatial Fourier Spandwidth Spandwidt	rat suppr.	vvater excit. normal	···· BOLD	
Reconstruction Magnitude Spatial filter Off Measurements 75 Delay in TR 0 ms Multiple series Off Resolution Base resolution 232 Phase resolution 100 % Slice resolution 100 % Slice partial Fourier 6/8 Interpolation Off PAT mode Accel. factor PE Ref. lines PE 96 Accel. factor 3D 1 Reference scan mode Separate Magnitude Spatial filter Off Sequence Introduction Off Dimension 3D Reordering Linear Contrasts 1 Bandwidth 828 Hz/Px Free echo spacing Off Echo spacing 1.37 ms EPI factor 232 RF pulse type Normal Gradient mode Fast Excitation Slab-sel. RF spoiling On Maxwell Correction On log physio files On	Averaging mode	Long term		Off
Measurements Delay in TR Multiple series75 OffSequenceResolutionIntroduction 	Reconstruction	Magnitude		
Multiple series Off Resolution 3D Reordering Linear Contrasts 1 Bandwidth 828 Hz/Px Slice resolution 100 % Slice partial Fourier 6/8 Interpolation Off EPI factor 232 RF pulse type Normal Accel. factor PE 8 Ref. lines PE 96 Accel. factor 3D Reordering Linear Contrasts 1 Bandwidth 828 Hz/Px Free echo spacing Off Echo spacing 1.37 ms EPI factor 232 RF pulse type Normal Gradient mode Fast Excitation Slab-sel. RF spoiling On Reference scan mode Separate Maxwell Correction On log physio files On	Measurements		1 .	OII
Resolution Base resolution 232 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Interpolation Off PAT mode Accel. factor PE Ref. lines PE Accel. factor 3D Reference scan mode Separate Dimension Reordering Linear Contrasts 1 Bandwidth 828 Hz/Px Free echo spacing Off Echo spacing 1.37 ms EPI factor 232 RF pulse type Normal Gradient mode Fast Excitation Slab-sel. RF spoiling On Maxwell Correction On log physio files On	Delay in TR	0 ms		
Resolution Base resolution 232 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Interpolation Off EPI factor 232 RF pulse type Normal Accel. factor PE 8 Ref. lines PE 96 Accel. factor 3D 1 Ref. lines 3D 24 Reference scan mode Separate Reordering Contrasts 1 Bandwidth 828 Hz/Px Free echo spacing Off Echo spacing 1.37 ms EPI factor 232 RF pulse type Normal Gradient mode Fast Excitation Slab-sel. RF spoiling On Maxwell Correction On log physio files On	Multiple series	Off	Introduction	
Base resolution 232 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Interpolation Off EPI factor 232 RF pulse type Normal Accel. factor PE 8 Ref. lines PE 96 Accel. factor 3D 1 Ref. lines 3D 24 Reference scan mode Separate Ref. lines PE 96 Reference scan mode Separate Ref. lines PE 96 Reference scan mode Separate Ref. lines PE 96 Ref. lines 3D 24 Reference scan mode Separate Ref. lines PE Mandwidth 828 Hz/Px Reandwidth 828 Hz/Px Free echo spacing Off Echo spacing 1.37 ms Reference scan mode Fast Excitation Slab-sel. Ref. lines 3D 24 Use Ernst angle On Maxwell Correction On log physio files On	Pacalutian			3D
Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier 6/8 Interpolation Off EPI factor 232 RF pulse type Normal PAT mode GRAPPA Gradient mode Fast Accel. factor PE 8 Ref. lines PE 96 Accel. factor 3D 1 Ref. lines 3D 24 Reference scan mode Separate Maxwell Correction On log physio files		000	Reordering	Linear
Slice resolution 100 % Free echo spacing Off Phase partial Fourier 6/8 Slice partial Fourier 6/8 Interpolation Off EPI factor 232 RF pulse type Normal PAT mode GRAPPA Gradient mode Fast Accel. factor PE 8 Ref. lines PE 96 Accel. factor 3D 1 Ref. lines 3D 24 Reference scan mode Separate Maxwell Correction On log physio files				-
Phase partial Fourier 6/8 Slice partial Fourier 6/8 Interpolation Off PAT mode GRAPPA Accel. factor PE 8 Ref. lines PE 96 Accel. factor 3D 1 Ref. lines 3D 24 Reference scan mode Separate Fig. 6/8 Echo spacing 1.37 ms EPI factor 232 RF pulse type Normal Gradient mode Fast Excitation Slab-sel. RF spoiling On Maxwell Correction On log physio files On				
Slice partial Fourier 6/8 Interpolation Off EPI factor 232 RF pulse type Normal PAT mode GRAPPA Gradient mode Fast Accel. factor PE 8 Ref. lines PE 96 Accel. factor 3D 1 Ref. lines 3D 24 use Ernst angle On Reference scan mode Separate Maxwell Correction On log physio files On				_
Interpolation Off EPI factor 232 RF pulse type Normal PAT mode GRAPPA Gradient mode Fast Accel. factor PE 8 Excitation Slab-sel. Ref. lines PE 96 RF spoiling On Accel. factor 3D 1 Ref. lines 3D 24 use Ernst angle On Reference scan mode Separate Maxwell Correction On log physio files On			Echo spacing	1.37 ms
PAT mode GRAPPA Gradient mode Fast Accel. factor PE 8 Ref. lines PE 96 Accel. factor 3D 1 Ref. lines 3D 24 Reference scan mode Separate RF pulse type Normal Gradient mode Fast Excitation Slab-sel. RF spoiling On use Ernst angle On Maxwell Correction On log physio files On			FPI factor	232
PAT mode GRAPPA Accel. factor PE 8 Ref. lines PE 96 Accel. factor 3D 1 Ref. lines 3D 24 Reference scan mode Separate Gradient mode Fast Excitation Slab-sel. RF spoiling On Use Ernst angle On Maxwell Correction On Iog physio files On	Interpolation	OII		
Accel. factor PE 8 Ref. lines PE 96 Accel. factor 3D 1 Ref. lines 3D 24 Reference scan mode Separate Slab-sel. Ref. lines 3D 24 Reference scan mode Separate Slab-sel. Ref. lines 3D 00 Reference scan mode Separate Suggestion Slab-sel. Ref. lines 3D 00 Reference scan mode Separate Suggestion Slab-sel. Ref. lines 3D 00 Reference scan mode Separate Suggestion Slab-sel. Ref. lines PE 96 Ref. li	PAT mode	GRAPPA		
Ref. lines PE 96 RF spoiling On Accel. factor 3D 1 Ref. lines 3D 24 use Ernst angle On Reference scan mode Separate Maxwell Correction On log physio files On	Accel. factor PE			
Accel. factor 3D 1 Ref. lines 3D 24 Reference scan mode Separate		96		
Ref. lines 3D 24 use Ernst angle On Reference scan mode Separate Maxwell Correction On log physio files On			1/1 apoliiliy	OII
Reference scan mode Separate Maxwell Correction On log physio files On			use Ernst angle	On
log physio files On			Maxwell Correction	On
			···· log physio files	
Distortion Corr. Off RF BWTP 22.6			RF BWTP	22.6
Prescan Normalize Off bipolar water excite? On				On
Raw filter On WE with 540 phase? On	Raw filter	On	WE with 540 phase?	On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 6

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run05
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Prio Recon Before measurement After measurement Load to viewer Inline movie Auto store images Load to stamp segments Load images to graphic segments	Off On Off On Off	Hamming Geometry Multi-slice mode Series	Interleaved Interleaved
After measurement Load to viewer Inline movie Auto store images Load to stamp segments Load images to graphic segments	Off On Off	Multi-slice mode Series	
Load to viewer Inline movie Auto store images Load to stamp segments Load images to graphic segments	Off On Off	Series	
Inline movie Auto store images Load to stamp segments Load images to graphic segments	Off On Off		Interleaved
Auto store images Load to stamp segments Load images to graphic segments	On Off		Inteneaved
Load to stamp segments Load images to graphic segments	Off	Special sat.	None
Load images to graphic segments			140116
segments		Table position	Н
	Off	Table position	0 mm
		Inline Composing	Off
Auto open inline display	Off	1	
Start measurement without	On	System	
further preparation		V32	Off
Wait for user to start	On	A32	On
Start measurements	single	Positioning mode	FIX
Į.		MSMA	S - C - T
Routine			R >> L
Slab group 1		Sagittal	
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0 %	Shim mode	Standard
Slice oversampling	11.1 %		- 10.11.01.01
Slices per slab	72	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	Off
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	0.80 mm	? Ref. amplitude 1H	0.000 V
TR	51 ms	Adjustment Tolerance	Auto
TE		Adjust volume	
	20 ms	! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! R >> L	120 mm
Coil elements	A32	! F >> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	— ' _{51 ·}	
Flip angle	14 deg	Physio	
Fat suppr.	Water excit. normal	1st Signal/Mode	None
т ат зиррт.	·····	····· BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75	Opatial litter	Oli
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
· ·		Dimension	3D
Resolution		Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
Slice resolution	100 %	Free echo spacing	Off
Phase partial Fourier	6/8	Echo spacing	1.37 ms
Slice partial Fourier	6/8	opaonig	
Interpolation	Off	EPI factor	232
	004004	RF pulse type	Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On
Accel. factor 3D	1		
Ref. lines 3D	24	use Ernst angle	On
Reference scan mode	Separate	Maxwell Correction	On
Distortion Co	O#	log physio files	On
Distortion Corr.	Off	RF BWTP	22.6
Prescan Normalize	Off	bipolar water excite?	On
Raw filter	On	WE with 540 phase?	On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 64

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run06
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Before measurement After measurement Load to viewer Inline movie Auto store images Load to stamp segments Coff Load images to graphic Segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Start measurements Siab group 1 Slabs Dist. factor Position Orientation On Segments Auto open inline display Off Sys Auto open inline display Off Solate Auto open inline display Off Solate Auto open inline display Off Solate Auto open inline display Off Start measurement without On Sys Auto open inline display Off Solate Auto open inline display O	Hamming Frometry Multi-slice mode Series Special sat. Table position Table position Inline Composing stem V32 A32 Positioning mode MSMA Sagittal Coronal Transversal Save uncombined Coil Combine Mode	Interleaved Interleaved None H 0 mm Off Off On FIX S - C - T R >> L A >> P F >> H
After measurement Load to viewer On Inline movie Auto store images Load to stamp segments Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Slab group 1 Slabs Dist. factor Position Orientation Off Sys Start measurement Slab to the company of	Multi-slice mode Series Special sat. Table position Table position Inline Composing stem V32 A32 Positioning mode MSMA Sagittal Coronal Transversal Save uncombined	Interleaved None H 0 mm Off Off On FIX S - C - T R >> L A >> P
Load to viewer On Inline movie Off Auto store images On Load to stamp segments Off Inline movie Must be a segment of the Load images to graphic off segments Auto open inline display Off Start measurement without On further preparation Wait for user to start On Start measurements single Routine Routine Slab group 1 Slabs 1 Slabs	Series Special sat. Table position Table position Inline Composing Stem V32 A32 Positioning mode MSMA Sagittal Coronal Transversal Save uncombined	Interleaved None H 0 mm Off Off On FIX S - C - T R >> L A >> P
Inline movie Auto store images Load to stamp segments Coff Load images to graphic Segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Slab group 1 Slabs Dist. factor Position Orientation On Start measurements Slab group 1 Slabs Corrected Correct	Special sat. Table position Table position Inline Composing Stem V32 A32 Positioning mode MSMA Sagittal Coronal Transversal Save uncombined	None H 0 mm Off Off On FIX S - C - T R >> L A >> P
Auto store images Load to stamp segments Coff Load images to graphic Segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Start measurements Siab group 1 Slabs Dist. factor Position Orientation Off Sys Off Sys A Off F Sys A On Sys A A A Siab A C T C T T C T T T T T T T	Table position Table position Inline Composing stem V32 A32 Positioning mode MSMA Sagittal Coronal Transversal Save uncombined	H 0 mm Off Off On FIX S - C - T R >> L A >> P
Load to stamp segments Off Load images to graphic Off segments Auto open inline display Off Start measurement without On further preparation Wait for user to start On Start measurements single Routine Slab group 1 Slabs 1 Dist. factor 50 % Position L0.0 P8.1 H31.4 Orientation C > T-42.3	Table position Table position Inline Composing stem V32 A32 Positioning mode MSMA Sagittal Coronal Transversal Save uncombined	H 0 mm Off Off On FIX S - C - T R >> L A >> P
Load images to graphic Off segments Auto open inline display Off Start measurement without On further preparation Wait for user to start On Start measurements single Routine Slab group 1 Slabs 1 Dist. factor 50 % Position L0.0 P8.1 H31.4 Orientation C > T-42.3	Table position Inline Composing stem V32 A32 Positioning mode MSMA Sagittal Coronal Transversal Save uncombined	O mm Off On FIX S - C - T R >> L A >> P
segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Start measurements Slab group 1 Slabs Dist. factor Position Orientation Start measurements Slab group 1 C > T-42.3	Inline Composing stem V32 A32 Positioning mode MSMA Sagittal Coronal Transversal Save uncombined	Off On FIX S - C - T R >> L A >> P
Auto open inline display Start measurement without On further preparation Wait for user to start Start measurements Start measurements Slab group 1 Slabs Dist. factor Position Orientation Auto open inline display Off Sys Sys A A A A A A A A A A A A A	stem V32 A32 Positioning mode MSMA Sagittal Coronal Transversal Save uncombined	Off On FIX S - C - T R >> L A >> P
Start measurement without On further preparation Wait for user to start On Start measurements single Routine Slab group 1 Slabs 1 Dist. factor 50 % Position L0.0 P8.1 H31.4 Orientation C > T-42.3	V32 A32 Positioning mode MSMA Sagittal Coronal Transversal Save uncombined	On FIX S - C - T R >> L A >> P
further preparation Wait for user to start Start measurements Routine Slab group 1 Slabs Dist. factor Position Orientation Final Mark Single A Single Final Mark	V32 A32 Positioning mode MSMA Sagittal Coronal Transversal Save uncombined	On FIX S - C - T R >> L A >> P
Wait for user to start Start measurements Routine Slab group 1 Slabs Dist. factor Position Orientation Vait for user to start Single F A Single F C C C C C C C C C C C C	A32 Positioning mode MSMA Sagittal Coronal Transversal Save uncombined	On FIX S - C - T R >> L A >> P
Start measurements Single Figure	Positioning mode MSMA Sagittal Coronal Transversal Save uncombined	FIX S - C - T R >> L A >> P
Routine	MSMA Sagittal Coronal Transversal Save uncombined	S - C - T R >> L A >> P
Slab group 1 Slabs	Sagittal Coronal Transversal Save uncombined	R >> L A >> P
Slabs 1 Dist. factor 50 % Position L0.0 P8.1 H31.4 Orientation C > T-42.3	Coronal Transversal Save uncombined	A >> P
Slabs 1 Dist. factor 50 % Position L0.0 P8.1 H31.4 Orientation C > T-42.3	Transversal Save uncombined	
Dist. factor 50 % Position L0.0 P8.1 H31.4 Orientation C > T-42.3	Save uncombined	E < > H
Orientation C > T-42.3		
Orientation C > T-42.3	Coil Combine Mode	Off
		Sum of Squares
	AutoAlign	
Rotation 0.00 deg	Auto Coil Select	Default
Dhaga ayaraamalina 0.0/	Shim mode	Standard
1 01:	Adjust with body coil	Off
70	Confirm freq. adjustment	Off
F-1/	Assume Silicone	Off
T-V-h	? Ref. amplitude 1H	0.000 V
01: 4:	Adjustment Tolerance	Auto
	Adjust volume	Auto
TE 20 ms	! Position	L1.2 P14.6 H23.8
Averages 1	! Orientation	C > T-41.3
Concatenations 1	! Rotation	-90.00 deg
Filter None	! Rotation ! R >> L	120 mm
Coil elements A32	! F >> H	138 mm
Contract	! A >> P	63 mm
Contrast		03 11111
	ysio	
Flip angle 14 deg	1st Signal/Mode	None
Fat suppr. Water excit. normal)LD	
Averaging page	Motion correction	Off
December 1	Spatial filter	Off
Measurements 75	Spatial litter	Oll
	quence	
	Introduction	Off
Possilution	Dimension	3D
Resolution	Reordering	Linear
	Contrasts	1
	Bandwidth	828 Hz/Px
	Free echo spacing	Off
Phase partial Fourier 6/8	Echo spacing	1.37 ms
Slice partial Fourier 6/8	EPI factor	232
	RF pulse type	Normal
	Gradient mode	Fast
Accel factor DE	Excitation	Slab-sel.
Det lines DE	RF spoiling	On
Accel. factor 3D 1		·····
	use Ernst angle	On
	Maxwell Correction	On
	log physio files	On
Distortion Corr. Off	RF BWTP	22.6
Prescan Normalize Off	bipolar water excite?	On
Raw filter On	WE with 540 phase?	On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 64

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\gre_field_mapping_3mm

Rel. SNR: 1.00

SIEMENS: gre_field_mapping

Voxel size: 2.0×2.0×3.0 mm

TA: 2:28

		Table position	0 mm
Properties		Inline Composing	Off
Prio Recon	Off		
Before measurement After measurement		System V32	Off
Load to viewer	On	A32	On
Inline movie	Off		
Auto store images	On	Positioning mode	FIX
Load to stamp segments	Off	MSMA	S - C - T
Load images to graphic	Off	Sagittal	R >> L
segments		Coronal	A >> P
Auto open inline display	Off	Transversal	F >> H
Start measurement without	On	Save uncombined	Off
further preparation		Coil Combine Mode	Adaptive Combine
Wait for user to start	Off	AutoAlign	 D ();
Start measurements	single	Auto Coil Select	Default
Routine	-	Shim mode	Standard
		Adjust with body coil	Off
Slice group 1 Slices	40	Confirm freq. adjustment	Off
Dist. factor	20 %	Assume Silicone	Off
Position	L0.0 P8.1 H31.4	? Ref. amplitude 1H	0.000 V
Orientation	C > T-42.3	Adjustment Tolerance	Auto
	C > 1-42.3 F >> H	Adjust volume	
Phase enc. dir. Rotation		! Position	L1.2 P14.6 H23.8
	90.00 deg 0 %	! Orientation	C > T-41.3
Phase oversampling	256 mm	! Rotation	-90.00 deg
FoV read		! R >> L	120 mm
FoV phase	100.0 %	! F >> H	138 mm
Slice thickness	3.0 mm	! A >> P	63 mm
TR	574 ms	Ţ	
TE 1 TE 2	10.00 ms	Composing	
	11.02 ms	Sequence	
Averages Concatenations	1 1	Introduction	Off
Filter	None	Dimension	2D
Coil elements	A32	Asymmetric echo	Off
Con elements	A32	Contrasts	2
Contrast		Bandwidth	260 Hz/Px
MTC	Off	Flow comp.	Yes
Flip angle	45 deg	DE 1 (
Fat suppr.	None	RF pulse type	Normal
Averaging mode	Short term	Gradient mode	Fast
Reconstruction	Magn./Phase	RF spoiling	On
Measurements	1		
Multiple series	Off		
•	0.11		
Resolution		<u></u>	
Base resolution	128		
Phase resolution	100 %		
Phase partial Fourier	Off		
Interpolation	Off		
Image Filter	Off		
Distortion Corr.	Off		
Prescan Normalize	Off		
Normalize	Off		
B1 filter	Off		
Raw filter	Off		
Elliptical filter	Off		
•			
Geometry Multi-slice mode	Interleaved	<u>—</u>	
Series	Interleaved		
	mieneaveu		
Special sat.	None		
Table position	Н		

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run07
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Prio Recon Before measurement After measurement	Off	—— Hamming	Off
I After measurement		Geometry	
	_	Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On		
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off		
Start measurement without	On	System	
further preparation		V32	Off
Wait for user to start	On	A32	On
Start measurements	single	Positioning mode	FIX
Į.	9.1	MSMA	S - C - T
Routine			8 - C - 1 R >> L
Slab group 1		Sagittal	
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0 %	Shim mode	Standard
Slice oversampling	11.1 %		- 1311 13131 S
Slices per slab	72	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	Off
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	0.80 mm	? Ref. amplitude 1H	0.000 V
TR	51 ms	Adjustment Tolerance	Auto
TE		Adjust volume	
	20 ms	! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! R >> L	120 mm
Coil elements	A32	! F >> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	— ' ₅₁ .	
Flip angle	14 deg	Physio	
Fat suppr.	Water excit. normal	1st Signal/Mode	None
1 at Suppr.	·····	····· BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75	Opaliai ilitei	Oli
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
		Dimension	3D
Resolution		Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
Slice resolution	100 %	Free echo spacing	Off
Phase partial Fourier	6/8	Echo spacing	1.37 ms
Slice partial Fourier	6/8		
Interpolation	Off	EPI factor	232
		····· RF pulse type	Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On
Accel. factor 3D	1		-
Ref. lines 3D	24	use Ernst angle	On
Reference scan mode	Separate	Maxwell Correction	On
Distortion Co	O#	log physio files	On
Distortion Corr.	Off	RF BWTP	22.6
Prescan Normalize	Off	bipolar water excite?	On
Raw filter	On	WE with 540 phase?	On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 64

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run08
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Properties		Elliptical filter Hamming	Off Off
Prio Recon	Off	Папппп	Oii
Before measurement		Geometry	
After measurement		Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On		······
Load to stamp segments	Off	Table position	H
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off	System	
Start measurement without	On	System V32	Off
further preparation			
Wait for user to start	On	A32	On
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S-C-T
Slab group 1		Sagittal	R >> L
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0.00 deg 0 %		
Slice oversampling	11.1 %	Shim mode	Standard
Slices per slab	72	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	Off
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	0.80 mm	? Ref. amplitude 1H	0.000 V
TR	51 ms	Adjustment Tolerance	Auto
TE	20 ms	Adjust volume	
		! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations Filter	1 Nana	! Rotation	-90.00 deg
	None	! R >> L	120 mm
Coil elements	A32	! F >> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	Physio	
Flip angle	14 deg	1st Signal/Mode	None
Fat suppr.	Water excit. normal	1	None
A	1 t	BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75	Sequence	
Delay in TR	0 ms	Introduction	Off
Multiple series	Off	Dimension	3D
Resolution		Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
Slice resolution	100 %	Free echo spacing	Off
Phase partial Fourier	6/8		1.37 ms
Slice partial Fourier	6/8	Echo spacing	1.37 1115
Interpolation	Off	EPI factor	232
		RF pulse type	Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On
Accel. factor 3D	1		
Ref. lines 3D	24	use Ernst angle	On
Reference scan mode	Separate	Maxwell Correction	On
Distortion Corr.	Off	log physio files	On
Prescan Normalize	Off	RF BWTP	22.6
Raw filter	On	bipolar water excite?	On
I wam iii.ei	OII	WE with 540 phase?	On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 6

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run09
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Prio Recon Before measurement After measurement Load to viewer Inline movie Auto store images Load to stamp segments Load images to graphic	Off	— Hamming Geometry Multi-slice mode	
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		I Multi-slice mode	
Inline movie Auto store images Load to stamp segments			Interleaved
Auto store images Load to stamp segments		Series	Interleaved
Load to stamp segments	Off	Special sat.	None
	On O#		
Load imades to drabnic	Off	Table position	Н
	Off	Table position	0 mm
segments	0"	Inline Composing	Off
Auto open inline display	Off	System	
Start measurement without	On	V32	Off
further preparation		A32	On
Wait for user to start	On		
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S - C - T
Slab group 1		Sagittal	R >> L
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0 %	Shim mode	Standard
Slice oversampling	11.1 %	Adjust with body coil	Off
Slices per slab	72	Confirm freq. adjustment	Off
FoV read	192 mm	Assume Silicone	Off
FoV phase	100.0 %	? Ref. amplitude 1H	0.000 V
Slice thickness	0.80 mm	Adjustment Tolerance	Auto
TR	51 ms	Adjust volume	Auto
TE	20 ms	! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! R >> L	120 mm
Coil elements	A32	!F>> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	'	00 111111
	14 deg	Physio	
Flip angle	Water excit. normal	1st Signal/Mode	None
Fat suppr.	vvater excit. normal	···· BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75	1 '	O.I.
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
Resolution		Dimension	3D
	222	Reordering	Linear
Base resolution Phase resolution	232 100 %	Contrasts	1
Slice resolution	100 %	Bandwidth	828 Hz/Px
Phase partial Fourier	6/8	Free echo spacing	Off
Slice partial Fourier	6/8	Echo spacing	1.37 ms
Interpolation	Off	EPI factor	232
	OII	RF pulse type	Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On On
Accel. factor 3D	1		<u> </u>
Ref. lines 3D	24	use Ernst angle	On
Reference scan mode	Separate	Maxwell Correction	On
Distortion Corr	Off	log physio files	On
Distortion Corr.	Off	RF BWTP	22.6
Prescan Normalize Raw filter	Off	bipolar water excite?	On
Raw lillel	On	WE with 540 phase?	On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 64

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run10
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Prio Recon Before measurement After measurement Load to viewer	Off	— Hamming	
After measurement Load to viewer		(: a a saa a bus :	
Load to viewer		Geometry	
	_	Multi-slice mode	Interleaved
	On	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On	Opecial Sat.	
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off		
Start measurement without	On	System	
further preparation		V32	Off
Wait for user to start	On	A32	On
Start measurements	single	Positioning mode	FIX
Ţ	- ing. c	MSMA	S - C - T
Routine			8 - C - 1 R >> L
Slab group 1		Sagittal	
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0 %	Shim mode	Standard
Slice oversampling	11.1 %		- 1311 13131 S
Slices per slab	72	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	Off
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	0.80 mm	? Ref. amplitude 1H	0.000 V
		Adjustment Tolerance	Auto
TR TE	51 ms	Adjust volume	
	20 ms	! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! R >> L	120 mm
Coil elements	A32	! F >> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	' _{Bl.} .	
Flip angle	14 deg	Physio	
Fat suppr.	Water excit. normal	1st Signal/Mode	None
ι αι συρρι.	·····	····· BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75	Opaliai ilitei	Oli
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
	-	Dimension	3D
Resolution		Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
Slice resolution	100 %	Free echo spacing	Off
Phase partial Fourier	6/8	Echo spacing	1.37 ms
Slice partial Fourier	6/8	opaonig	
Interpolation	Off	EPI factor	232
		····· RF pulse type	Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On
Accel. factor 3D	1		-
Ref. lines 3D	24	use Ernst angle	On
Reference scan mode	Separate	Maxwell Correction	On
Distortion Co	O#	log physio files	On
Distortion Corr.	Off	RF BWTP	22.6
Prescan Normalize Raw filter	Off	bipolar water excite?	On
	On	WE with 540 phase?	On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 6

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run11
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Prio Recon Before measurement After measurement Load to viewer Inline movie Auto store images Load to stamp segments	Off On Off	— Hamming Geometry Multi-slice mode	
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		Multi-slice mode	
Inline movie Auto store images Load to stamp segments		Corios	Interleaved
Auto store images Load to stamp segments	Off	Series	Interleaved
Load to stamp segments		Special sat.	None
	On Off		
	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments	0"	Inline Composing	Off
Auto open inline display	Off	System	
Start measurement without	On	V32	Off
further preparation		A32	On
Wait for user to start	On		
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S - C - T
Slab group 1		Sagittal	R >> L
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0 %	Shim mode	Standard
Slice oversampling	11.1 %	Adjust with body coil	Off
Slices per slab	72	Confirm freq. adjustment	Off
FoV read	192 mm	Assume Silicone	Off
FoV phase	100.0 %	? Ref. amplitude 1H	0.000 V
Slice thickness	0.80 mm	Adjustment Tolerance	Auto
TR	51 ms	Adjust volume	Auto
TE	20 ms	! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! R >> L	120 mm
Coil elements	A32	!F>>H	138 mm
Contract		! A >> P	63 mm
Contrast	0"		03 11111
MTC	Off	Physio	
Flip angle	14 deg	1st Signal/Mode	None
Fat suppr.	Water excit. normal	···· BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75	Spatial litter	Oli
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
Deschution		Dimension	3D
Resolution	000	Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
Slice resolution	100 %	Free echo spacing	Off
Phase partial Fourier	6/8	Echo spacing	1.37 ms
Slice partial Fourier	6/8	EPI factor	232
Interpolation	Off	RF pulse type	Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On
Accel. factor 3D	1	ixi spoiling	OII
Ref. lines 3D	24	use Ernst angle	On
Reference scan mode	Separate	Maxwell Correction	On
		···· log physio files	On
Distortion Corr.	Off	RF BWTP	22.6
Prescan Normalize	Off	bipolar water excite?	On
Raw filter	On	WE with 540 phase?	On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 6

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run12
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Properties	0"	Elliptical filter Hamming	Off Off
Prio Recon	Off	Coomotry	
Before measurement		Geometry Multi-slice mode	Interlegued
After measurement Load to viewer	05	Series	Interleaved
	On O#	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On Off		
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments	2"	Inline Composing	Off
Auto open inline display	Off	System	
Start measurement without	On	V32	Off
further preparation	_	A32	On
Wait for user to start	On	A32	
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S - C - T
Slab group 1		Sagittal	R >> L
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
	0.00 deg 0 %		
Phase oversampling	11.1 %	Shim mode	Standard
Slice oversampling	72	Adjust with body coil	Off
Slices per slab FoV read	12 192 mm	Confirm freq. adjustment	Off
	_	Assume Silicone	Off
FoV phase	100.0 %	? Ref. amplitude 1H	0.000 V
Slice thickness	0.80 mm	Adjustment Tolerance	Auto
TR	51 ms	Adjust volume	
ŢE	20 ms	! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! R >> L	120 mm
Coil elements	A32	! F >> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	Physic	
Flip angle	14 deg	Physio	Nana
Fat suppr.	Water excit. normal	1st Signal/Mode	None
		···· BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75	i ·	
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
Resolution		Dimension	3D
Base resolution	232	Reordering	Linear
Phase resolution	100 %	Contrasts	1
Slice resolution	100 %	Bandwidth	828 Hz/Px
Phase partial Fourier		Free echo spacing	Off
	6/8	Echo spacing	1.37 ms
Slice partial Fourier	6/8	EPI factor	232
Interpolation	Off	RF pulse type	Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	
Ref. lines PE	96		Slab-sel.
Accel. factor 3D	1	RF spoiling	On
Ref. lines 3D	24	use Ernst angle	On
Reference scan mode	Separate	Maxwell Correction	On
······		log physio files	On
Distortion Corr.	Off	RF BWTP	22.6
Prescan Normalize	Off	bipolar water excite?	On
Raw filter	On	WE with 540 phase?	On
•		1.2 Mai o lo pilado:	5

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 6

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\gre_field_mapping_3mm

Rel. SNR: 1.00

SIEMENS: gre_field_mapping

Voxel size: 2.0×2.0×3.0 mm

TA: 2:28

		Table position	0 mm
Properties		Inline Composing	Off
Prio Recon	Off		
Before measurement After measurement		System V32	Off
Load to viewer	On	A32	On
Inline movie	Off		
Auto store images	On	Positioning mode	FIX
Load to stamp segments	Off	MSMA	S - C - T
Load images to graphic	Off	Sagittal	R >> L
segments		Coronal	A >> P
Auto open inline display	Off	Transversal	F >> H
Start measurement without	On	Save uncombined	Off
further preparation		Coil Combine Mode	Adaptive Combine
Wait for user to start	Off	AutoAlign	 D ();
Start measurements	single	Auto Coil Select	Default
Routine	-	Shim mode	Standard
		Adjust with body coil	Off
Slice group 1 Slices	40	Confirm freq. adjustment	Off
Dist. factor	20 %	Assume Silicone	Off
Position	L0.0 P8.1 H31.4	? Ref. amplitude 1H	0.000 V
Orientation	C > T-42.3	Adjustment Tolerance	Auto
	C > 1-42.3 F >> H	Adjust volume	
Phase enc. dir. Rotation		! Position	L1.2 P14.6 H23.8
	90.00 deg 0 %	! Orientation	C > T-41.3
Phase oversampling	256 mm	! Rotation	-90.00 deg
FoV read		! R >> L	120 mm
FoV phase	100.0 %	! F >> H	138 mm
Slice thickness	3.0 mm	! A >> P	63 mm
TR	574 ms	Ţ	
TE 1 TE 2	10.00 ms	Composing	
	11.02 ms	Sequence	
Averages Concatenations	1 1	Introduction	Off
Filter	None	Dimension	2D
Coil elements	A32	Asymmetric echo	Off
Con elements	A32	Contrasts	2
Contrast		Bandwidth	260 Hz/Px
MTC	Off	Flow comp.	Yes
Flip angle	45 deg	DE 1 (
Fat suppr.	None	RF pulse type	Normal
Averaging mode	Short term	Gradient mode	Fast
Reconstruction	Magn./Phase	RF spoiling	On
Measurements	1		
Multiple series	Off		
•	0.11		
Resolution		<u></u>	
Base resolution	128		
Phase resolution	100 %		
Phase partial Fourier	Off		
Interpolation	Off		
Image Filter	Off		
Distortion Corr.	Off		
Prescan Normalize	Off		
Normalize	Off		
B1 filter	Off		
Raw filter	Off		
Elliptical filter	Off		
•			
Geometry Multi-slice mode	Interleaved	<u>—</u>	
Series	Interleaved		
	mieneaveu		
Special sat.	None		
Table position	Н		

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run13
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Properties	0"	Elliptical filter Hamming	Off Off
Prio Recon	Off	1	
Before measurement		Geometry	
After measurement	_	Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On		
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off		
Start measurement without	On	System	
further preparation		V32	Off
Wait for user to start	On	A32	On
Start measurements	single	Positioning mode	FIX
1	3 -	MSMA	S-C-T
Routine			
Slab group 1		Sagittal	R >> L
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0 %	01.	O: 1 1
Slice oversampling	11.1 %	Shim mode	Standard
Slices per slab	72	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	Off
	100.0 %	Assume Silicone	Off
FoV phase		? Ref. amplitude 1H	0.000 V
Slice thickness	0.80 mm	Adjustment Tolerance	Auto
TR	51 ms	Adjust volume	
TE	20 ms	! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! R >> L	120 mm
Coil elements	A32	! F >> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	<u> </u>	
Flip angle	14 deg	Physio	
. •	Water excit. normal	1st Signal/Mode	None
Fat suppr.	vvaler excit. normal	····· BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75	Spatial litter	Oli
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
•	011	Dimension	3D
Resolution		Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
Slice resolution	100 %	Free echo spacing	Off
Phase partial Fourier	6/8	Echo spacing	1.37 ms
Slice partial Fourier	6/8	Lono spacing	1.07 1118
Interpolation	Off	EPI factor	232
		RF pulse type	Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On On
Accel. factor 3D	1	g	V:1
Ref. lines 3D	24	use Ernst angle	On
Reference scan mode	Separate	Maxwell Correction	On
		log physio files	On
Distortion Corr.	Off	RF BWTP	22.6
Prescan Normalize	Off	bipolar water excite?	On
Raw filter	On	WE with 540 phase?	On
		vv⊏ with 540 phase?	Oil

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 6

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run14
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

		Elliptical filter	Off
Properties		Hamming	Off
Prio Recon	Off		
Before measurement		Geometry	
After measurement		Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On		
Load to stamp segments	Off	Table position	H
Load images to graphic	Off	Table position	0 mm
segments Auto open inline display	Off	Inline Composing	Off
Start measurement without	On	System	
further preparation	Oli	V32	Off
Wait for user to start	On	A32	On
Start measurements	single		
I	Sirigle	Positioning mode	FIX
Routine		MSMA	S-C-T
Slab group 1		Sagittal	R >> L
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign Auto Coil Select	 Default
Rotation	0.00 deg	Auto Coli Select	Delani
Phase oversampling	0 %	Shim mode	Standard
Slice oversampling	11.1 %	Adjust with body coil	Off
Slices per slab	72	Confirm freq. adjustment	Off
FoV read	192 mm	Assume Silicone	Off
FoV phase	100.0 %	? Ref. amplitude 1H	0.000 V
Slice thickness	0.80 mm	Adjustment Tolerance	Auto
TR TE	51 ms	Adjust volume	
	20 ms	! Position	L1.2 P14.6 H23.8
Averages Concatenations	1 1	! Orientation	C > T-41.3
Filter	None	! Rotation	-90.00 deg
Coil elements	A32	! R >> L	120 mm
Coll elements	A32	! F >> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	Physio	
Flip angle	14 deg	1st Signal/Mode	None
Fat suppr.	Water excit. normal	1	
Averaging mode	Long term	BOLD	0"
Reconstruction	Magnitude	Motion correction	Off
Measurements	75	Spatial filter	Off
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
•		Dimension	3D
Resolution		Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
Slice resolution	100 %	Free echo spacing	Off
Phase partial Fourier	6/8	Echo spacing	1.37 ms
Slice partial Fourier	6/8	EPI factor	222
Interpolation	Off	RF pulse type	232 Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96		
Accel. factor 3D	1	RF spoiling	On
Ref. lines 3D	24	use Ernst angle	On
Reference scan mode	Separate	Maxwell Correction	On
		log physio files	On
Distortion Corr.	Off	RF BWTP	22.6
Prescan Normalize	Off	bipolar water excite?	On
Raw filter	On	WE with 540 phase?	On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 64

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run15
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Properties		Elliptical filter - Hamming	Off Off
Prio Recon	Off	1	
Before measurement		Geometry	
After measurement	_	Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On		
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off		
Start measurement without	On	System	
further preparation		V32	Off
Wait for user to start	On	A32	On
Start measurements	single	Positioning mode	FIX
<u>I</u>	3 -	MSMA	S-C-T
Routine			8 - C - 1 R >> L
Slab group 1		Sagittal	
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0 %	Shim mode	Standard
Slice oversampling	11.1 %		- 13.1 13.1 S.
Slices per slab	72	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	Off
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	0.80 mm	? Ref. amplitude 1H	0.000 V
TR	51 ms	Adjustment Tolerance	Auto
TE		Adjust volume	
	20 ms	! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! R >> L	120 mm
Coil elements	A32	! F >> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	_ '	
Flip angle	14 deg	Physio	
Fat suppr.	Water excit. normal	1st Signal/Mode	None
		BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75	1 ·	
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
Deschation		Dimension	3D
Resolution		Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
Slice resolution	100 %	Free echo spacing	Off
Phase partial Fourier	6/8	Echo spacing	1.37 ms
Slice partial Fourier	6/8		
Interpolation	Off	EPI factor	232
DAT mode	CDADDA	RF pulse type	Normal
PAT mode	GRAPPA °	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On
Accel. factor 3D	1	una Errat availa	On
Ref. lines 3D	24	use Ernst angle	On On
		Maxwell Correction	On
Ref. lines 3D Reference scan mode	24 Separate	Maxwell Correction log physio files	On On
Ref. lines 3D Reference scan mode Distortion Corr.	24 Separate Off	Maxwell Correction log physio files RF BWTP	On On 22.6
Ref. lines 3D Reference scan mode	24 Separate	Maxwell Correction log physio files	On On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 64

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run16
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

		Elliptical filter	Off
Properties		- Hamming	Off
Prio Recon	Off		5 11
Before measurement		Geometry	
After measurement		Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On		·····
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off	System	
Start measurement without	On	V32	Off
further preparation	_	A32	On
Wait for user to start	On	A32	
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S - C - T
Slab group 1		Sagittal	R >> L
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0 %	Chim mada	Standard
Slice oversampling	11.1 %	Shim mode	Standard Off
Slices per slab	72	Adjust with body coil	
FoV read	192 mm	Confirm freq. adjustment Assume Silicone	Off Off
FoV phase	100.0 %		0.000 V
Slice thickness	0.80 mm	? Ref. amplitude 1H	Auto
TR	51 ms	Adjustment Tolerance Adjust volume	Auto
TE	20 ms	! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! Rotation ! R >> L	-90.00 deg 120 mm
Coil elements	A32	! K >> L ! F >> H	138 mm
		! A >> P	63 mm
Contrast	0"	_ ! !	03 11111
MTC	Off	Physio	
Flip angle	14 deg	1st Signal/Mode	None
Fat suppr.	Water excit. normal	BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75 ັ	1 '	5 11
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
Resolution		Dimension	3D
	222	Reordering	Linear
Base resolution Phase resolution	232 100 %	Contrasts	1
Slice resolution	100 %	Bandwidth	828 Hz/Px
	6/8	Free echo spacing	Off
Phase partial Fourier		Echo spacing	1.37 ms
Slice partial Fourier	6/8 Off	EPI factor	232
Interpolation	OII	RF pulse type	Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On
Accel. factor 3D	1		
Ref. lines 3D	24	use Ernst angle	On
Reference scan mode	Separate	Maxwell Correction	On
Distortion Com	O#	log physio files	On
Distortion Corr.	Off	RF BWTP	22.6
Prescan Normalize Raw filter	Off On	bipolar water excite?	On
I Naw IIIIei	OII	WE with 540 phase?	On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 64

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run17
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Properties		Elliptical filter Hamming	Off Off
Prio Recon	Off	Папппп	Oii
Before measurement		Geometry	
After measurement		Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On		
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off	System	
Start measurement without	On	System V32	Off
further preparation			
Wait for user to start	On	A32	On
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S-C-T
Slab group 1		Sagittal	R >> L
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0.00 deg 0 %		
Slice oversampling	11.1 %	Shim mode	Standard
Slices per slab	72	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	Off
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	0.80 mm	? Ref. amplitude 1H	0.000 V
TR	51 ms	Adjustment Tolerance	Auto
TE	20 ms	Adjust volume	
		! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations Filter	1 Nana	! Rotation	-90.00 deg
	None	! R >> L	120 mm
Coil elements	A32	! F >> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	Physio	
Flip angle	14 deg	1st Signal/Mode	None
Fat suppr.	Water excit. normal	1	None
A	1 t	BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75	Sequence	
Delay in TR	0 ms	Introduction	Off
Multiple series	Off	Dimension	3D
Resolution		Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
Slice resolution	100 %	Free echo spacing	Off
Phase partial Fourier	6/8		1.37 ms
Slice partial Fourier	6/8	Echo spacing	1.37 1115
Interpolation	Off	EPI factor	232
		RF pulse type	Normal
PAT mode	GRAPPA	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On
Accel. factor 3D	1		
Ref. lines 3D	24	use Ernst angle	On
Reference scan mode	Separate	Maxwell Correction	On
Distortion Corr.	Off	log physio files	On
Prescan Normalize	Off	RF BWTP	22.6
Raw filter	On	bipolar water excite?	On
I Taw III.61		WE with 540 phase?	On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 6

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\BP_ep3d_8x1_0.8mm_TE20_run18
TA: 4:02 PAT: 8 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: BP_ep3d_bold_multiecho_DefaultStream

Properties		Elliptical filter Hamming	Off Off
Prio Recon	Off		
Before measurement		Geometry	
After measurement	_	Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On		
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off		
Start measurement without	On	System	
further preparation		V32	Off
Wait for user to start	On	A32	On
Start measurements	single	Positioning mode	FIX
1	3 -	MSMA	S-C-T
Routine			8 - C - 1 R >> L
Slab group 1		Sagittal	
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	L0.0 P8.1 H31.4	Save uncombined	Off
Orientation	C > T-42.3	Coil Combine Mode	Sum of Squares
Phase enc. dir.	R >> L	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0 %	Shim mode	Standard
Slice oversampling	11.1 %		- 13.1 13.1 S.
Slices per slab	72	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	Off
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	0.80 mm	? Ref. amplitude 1H	0.000 V
TR	51 ms	Adjustment Tolerance	Auto
TE TE		Adjust volume	
	20 ms	! Position	L1.2 P14.6 H23.8
Averages	1	! Orientation	C > T-41.3
Concatenations	1	! Rotation	-90.00 deg
Filter	None	! R >> L	120 mm
Coil elements	A32	! F >> H	138 mm
Contrast		! A >> P	63 mm
MTC	Off	_ '	
Flip angle	14 deg	Physio	
Fat suppr.	Water excit. normal	1st Signal/Mode	None
т ат баррт.	·····	BOLD	
Averaging mode	Long term	Motion correction	Off
Reconstruction	Magnitude	Spatial filter	Off
Measurements	75	i '	
Delay in TR	0 ms	Sequence	
Multiple series	Off	Introduction	Off
Danaludian		Dimension	3D
Resolution		_ Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
Slice resolution	100 %	Free echo spacing	Off
Phase partial Fourier	6/8	Echo spacing	1.37 ms
Slice partial Fourier	6/8		
Interpolation	Off	EPI factor	232
DAT mode	CDADDA	RF pulse type	Normal
PAT mode	GRAPPA •	Gradient mode	Fast
Accel. factor PE	8	Excitation	Slab-sel.
Ref. lines PE	96	RF spoiling	On
Accel. factor 3D	96 1		
Accel. factor 3D Ref. lines 3D	96 1 24	use Ernst angle	On
Accel. factor 3D	96 1	use Ernst angle Maxwell Correction	On On
Accel. factor 3D Ref. lines 3D Reference scan mode	96 1 24 Separate	use Ernst angle Maxwell Correction log physio files	On On On
Accel. factor 3D Ref. lines 3D Reference scan mode Distortion Corr.	96 1 24 Separate	use Ernst angle Maxwell Correction log physio files RF BWTP	On On On 22.6
Accel. factor 3D Ref. lines 3D Reference scan mode	96 1 24 Separate	use Ernst angle Maxwell Correction log physio files	On On On

EFFECTIVE TR 3060 ms
PatPartitions 60
EPI phase correction local

PAT refscan mode segm LIN->PAR

FlashRef BaseRes 64

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\gre_field_mapping_3mm

Rel. SNR: 1.00

SIEMENS: gre_field_mapping

Voxel size: 2.0×2.0×3.0 mm

TA: 2:28

		Table position	0 mm
Properties		Inline Composing	Off
Prio Recon	Off		
Before measurement After measurement		System V32	Off
Load to viewer	On	A32	On
Inline movie	Off		
Auto store images	On	Positioning mode	FIX
Load to stamp segments	Off	MSMA	S - C - T
Load images to graphic	Off	Sagittal	R >> L
segments		Coronal	A >> P
Auto open inline display	Off	Transversal	F >> H
Start measurement without	On	Save uncombined	Off
further preparation		Coil Combine Mode	Adaptive Combine
Wait for user to start	Off	AutoAlign Auto Coil Select	 Default
Start measurements	single	Auto Coli Select	Delauit
Routine		Shim mode	Standard
Slice group 1		Adjust with body coil	Off
Slices	40	Confirm freq. adjustment	Off
Dist. factor	20 %	Assume Silicone	Off
Position	L0.0 P8.1 H31.4	? Ref. amplitude 1H	0.000 V
Orientation	C > T-42.3	Adjustment Tolerance	Auto
Phase enc. dir.	F >> H	Adjust volume	
Rotation	90.00 deg	! Position	L1.2 P14.6 H23.8
Phase oversampling	0 %	! Orientation	C > T-41.3
FoV read	256 mm	! Rotation	-90.00 deg
FoV phase	100.0 %	! R >> L	120 mm
Slice thickness	3.0 mm	! F >> H	138 mm
TR	574 ms	! A >> P	63 mm
TE 1	10.00 ms	Composing	
TE 2	11.02 ms		
Averages	1	Sequence	2"
Concatenations	1	Introduction	Off
Filter	None	Dimension	2D Off
Coil elements	A32	Asymmetric echo Contrasts	2
Contrast		Bandwidth	260 Hz/Px
MTC	Off	Flow comp.	Yes
Flip angle	45 deg		
Fat suppr.	None	RF pulse type	Normal
		Gradient mode	Fast
Averaging mode	Short term	RF spoiling	On
Reconstruction	Magn./Phase		
Measurements Multiple series	1 Off		
Multiple series	Oii		
Resolution			
Base resolution	128		
Phase resolution	100 %		
Phase partial Fourier	Off		
Interpolation	Off		
Image Filter	Off		
Distortion Corr.	Off		
Prescan Normalize	Off		
Normalize	Off		
B1 filter	Off		
Raw filter	Off		
Elliptical filter	Off		
Geometry Multi-clico mode	Interleaved	<u></u>	
Multi-slice mode Series	Interleaved Interleaved		
	mileneaveu		
Special sat.	None		
Table position	Н		

\\USER\LAUBAI\attn_Janneke_Jehee_Nijmegen\20160513_Z7T1961\gre_field_mapping_3mm

Rel. SNR: 1.00

SIEMENS: gre_field_mapping

Voxel size: 2.0×2.0×3.0 mm

TA: 2:01

		Table position	0 mm
Properties		Inline Composing	Off
Prio Recon	Off		
Before measurement		System	0"
After measurement	0.5	V32	Off
Load to viewer	On O#	A32	On
Inline movie	Off	Positioning mode	FIX
Auto store images	On Off	MSMA	S - C - T
Load to stamp segments	Off	Sagittal	R >> L
Load images to graphic	Oil	Coronal	A >> P
segments	O#	Transversal	F >> H
Auto open inline display	Off	Save uncombined	Off
Start measurement without	On	Coil Combine Mode	Adaptive Combine
further preparation	0"	AutoAlign	 '
Wait for user to start	Off	Auto Coil Select	Default
Start measurements	single		
Routine		Shim mode	Standard
Slice group 1		Adjust with body coil	Off
Slices	40	Confirm freq. adjustment	Off
Dist. factor	51 %	Assume Silicone	Off
Position	L9.1 A30.8 H0.6	? Ref. amplitude 1H	0.000 V
Orientation	Transversal	Adjustment Tolerance	Auto
Phase enc. dir.	A >> P	Adjust volume	
Rotation	0.00 deg	! Position	L3.0 A10.0 H28.4
Phase oversampling	0 %	! Orientation	T > C-14.8
FoV read	256 mm	! Rotation	-0.00 deg
FoV phase	81.3 %	! R >> L	87 mm
Slice thickness	3.0 mm	! A >> P	92 mm
TR	574 ms	! F >> H	61 mm
TE 1	10.00 ms	Composing	
TE 2	11.02 ms	Composing	
Averages	1	Sequence	
Concatenations	1	Introduction	Off
Filter	None	Dimension	2D
Coil elements	A32	Asymmetric echo	Off
Con elements	AJZ	Contrasts	2
Contrast		Bandwidth	260 Hz/Px
MTC	Off	Flow comp.	Yes
Flip angle	45 deg		
Fat suppr.	None	RF pulse type	Normal
A	Ol t t	Gradient mode	Fast
Averaging mode	Short term	RF spoiling	On
Reconstruction	Magn./Phase		
Measurements	1		
Multiple series	Off		
Resolution			
Base resolution	128		
Phase resolution	100 %		
Phase partial Fourier	Off		
Interpolation	Off		
Image Filter	Off		
Distortion Corr.	Off		
Prescan Normalize	Off		
Normalize	Off		
B1 filter	Off		
Raw filter	Off		
Elliptical filter	Off		
Geometry			
Multi-slice mode	Interleaved	<u></u>	
Series	Interleaved		
	mieneaveu		
Special sat.	None		
Table position	Н		