

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\localizer-AZYGUS

TA: 0:16    PAT: Off    Voxel size: 2.0x1.6x6.0 mm    Rel. SNR: 1.00    SIEMENS: gre

## Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	single

Phase resolution	80 %
Phase partial Fourier	Off
Interpolation	On
-----	
PAT mode	None
Matrix Coil Mode	Auto (CP)
-----	
Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

## Routine

Slice group 1	
Slices	3
Dist. factor	50 %
Position	L0.0 P49.4 F12.1
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Slice group 2	
Slices	3
Dist. factor	50 %
Position	L0.0 P67.4 F12.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	50 %
Position	L0.0 P45.6 H12.9
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	38 %
FoV read	400 mm
FoV phase	100.0 %
Slice thickness	6.0 mm
TR	7.5 ms
TE	3.36 ms
Averages	1
Concatenations	7
Filter	Distortion Corr.(2D)
Coil elements	HEP;NE1,2;SP1-4

## Geometry

Multi-slice mode	Sequential
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Tim CT mode	Off

## System

Body	Off
NE2	On
NE1	On
HEP	On
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off

## Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default

Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

## Resolution

Base resolution	256
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## Physio

1st Signal/Mode	None
Segments	1

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Tagging	None
Dark blood	Off
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

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\TOF\_2D\_TRA

TA: 10:39 PAT: 2 Voxel size: 1.0x0.5x3.0 mm Rel. SNR: 1.00 SIEMENS: fl\_tof

### Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

### Routine

Slice group 1	
Slices	92
Dist. factor	-33.00 %
Position	L0.0 P24.9 F25.7
Orientation	T > C-7.9
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	20 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	41 ms
TE	5.02 ms
Averages	1
Concatenations	92
Filter	Elliptical filter
Coil elements	HEP;NE1,2;SP1-4

### Contrast

TD	0.000 ms
MTC	Off
Flip angle	60 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

### Resolution

Base resolution	512
Phase resolution	50 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On

Mode  
POCS

Inplane  
Off

### Geometry

Multi-slice mode	Sequential
Series	Descending
Sat. region 1	
Thickness	86 mm
Position	L0.0 A41.3 H4.1
Orientation	C > T5.7
Special sat.	Tracking H
Gap	10 mm
Thickness	40 mm

### System

Body	Off
NE2	On
NE1	On
HEP	On
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off
Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	P >> A
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 P24.9 F25.7
Orientation	T > C-7.9
Rotation	90.00 deg
A >> P	256 mm
R >> L	256 mm
F >> H	186 mm

### Physio

1st Signal/Mode	None
Dark blood	Off

### Angio

Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	On
MIP-Cor	On

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MIP-Tra	On
MIP-Time	Off
Save original images	On

## Sequence

Introduction	On
Dimension	2D
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	217 Hz/Px
Flow comp.	Yes
-----	
Gradient mode	Fast
RF spoiling	On

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\TOF\_2D\_TRA\_FOR AZYGUS ARCH  
 TA: 5:12    PAT: 2    Voxel size: 1.0x0.5x3.0 mm    Rel. SNR: 1.00    SIEMENS: fl\_tof

### Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

### Routine

Slice group 1	
Slices	46
Dist. factor	-33.00 %
Position	R12.6 P20.5 H31.3
Orientation	T > C38.2 > S25.7
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	20 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	40 ms
TE	5.02 ms
Averages	1
Concatenations	46
Filter	Elliptical filter
Coil elements	HEP;NE1,2;SP1-4

### Contrast

TD	0.000 ms
MTC	Off
Flip angle	60 deg
Fat suppr.	None
Water suppr.	None
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

### Resolution

Base resolution	512
Phase resolution	50 %
Phase partial Fourier	Off
Interpolation	Off
-----	
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On

Mode  
POCS

Inplane  
Off

### Geometry

Multi-slice mode	Sequential
Series	Ascending
-----	
Sat. region 1	
Thickness	86 mm
Position	L0.0 A41.3 H4.1
Orientation	C > T5.7
Special sat.	Tracking F
Gap	10 mm
Thickness	40 mm

### System

Body	Off
NE2	On
NE1	On
HEP	On
SP4	On
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	P >> A
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R12.6 P20.5 H31.3
Orientation	T > C38.2 > S25.7
Rotation	90.00 deg
A >> P	256 mm
R >> L	256 mm
F >> H	94 mm

### Physio

1st Signal/Mode	None
-----	
Dark blood	Off

### Angio

Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	On
MIP-Cor	On

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MIP-Tra	On
MIP-Time	Off
Save original images	On

## Sequence

Introduction	On
Dimension	2D
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	217 Hz/Px
Flow comp.	Yes
-----	
Gradient mode	Fast
RF spoiling	On

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\fl3\_50\_tp\_retro\_iPAT\_.57X.57x2.5-fa20

TA: 1:42    PAT: 2    Voxel size: 0.6x0.6x2.5 mm    Rel. SNR: 1.00    SIEMENS: fl\_fq\_retro

### Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

### Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	R4.5 P47.9 H25.0
Orientation	T > C-9.9
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
TR	95.25 ms
TE	10.00 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	NE1,2;SP1-3

### Contrast

Flip angle	20 deg
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

### Resolution

Base resolution	448
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

### Geometry

Multi-slice mode	Sequential
------------------	------------

### Series

Ascending	
Special sat.	None

### System

Body	Off
NE2	On
NE1	On
HEP	Off
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	On
SP1	On
SP7	Off
SP5	Off

### Positioning mode

REF	
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

### Shim mode

Tune up	
Adjust with body coil	On
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

### Physio

1st Signal/Mode	Pulse/Retro
Average cycle	No Signal ms
Calculated phases	30
Segments	3
Arrhythmia detection	None

### Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	50 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	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

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| Save original images      On

## Sequence

Introduction	Off
Asymmetric echo	Strong
Contrasts	1
Bandwidth	192 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On



# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\localizer  
 TA: 0:13    PAT: Off    Voxel size: 1.4x1.3x7.0 mm    Rel. SNR: 1.00    SIEMENS: gre

## Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On
-----	
PAT mode	None
Matrix Coil Mode	Auto (CP)
-----	
Image Filter	Off
Distortion Corr.	Off
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

## Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	L0.6 A31.5 H0.0
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	1
Dist. factor	20 %
Position	L0.6 A31.5 H0.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	20 %
Position	L0.6 A31.5 H0.0
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	320 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
TR	8.6 ms
TE	4.00 ms
Averages	2
Concatenations	3
Filter	Prescan Normalize, Elliptical filter
Coil elements	HEA;HEP;NE1,2

## Geometry

Multi-slice mode	Sequential
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Tim CT mode	Off

## System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	P >> A
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default

## Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

## Resolution

## Physio

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1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off
-----	
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	Allowed
Bandwidth	320 Hz/Px
Flow comp.	No
Allowed delay	0 s
-----	
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\DUAL-SWI\_tra\_p2\_24\_TE6/20\_.5x.5x2

TA: 6:39    PAT: 2    Voxel size: 1.0x0.5x2.0 mm    Rel. SNR: 1.00    SIEMENS: gre

### Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

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
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Tim CT mode	Off

### Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	R8.6 P6.2 F38.0
Orientation	T > S4.2 > C0.4
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	256 mm
FoV phase	75.0 %
Slice thickness	2.00 mm
TR	29 ms
TE 1	6.00 ms
TE 2	20.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP;NE1,2

### System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off
-----	
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default
-----	
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R8.6 P6.2 F38.0
Orientation	T > S4.2 > C0.4
Rotation	90.00 deg
A >> P	256 mm
R >> L	192 mm
F >> H	256 mm

### Contrast

MTC	Off
Magn. preparation	None
Flip angle	15 deg
Fat suppr.	None
Water suppr.	None
SWI	On
-----	
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

### Resolution

Base resolution	512
Phase resolution	50 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
-----	
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated

### Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off
-----	
Resp. control	Off

### Inline

Subtract	Off
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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	2

## Sequence

Introduction	On
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth 1	470 Hz/Px
Bandwidth 2	120 Hz/Px
Flow comp. 1	Yes
Flow comp. 2	No
Readout mode	Bipolar
Allowed delay	0 s
-----	
RF pulse type	Fast
Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\3D SPACE SAG FLAIR

TA: 5:20    PAT: 2    Voxel size: 1.0x1.0x1.0 mm    Rel. SNR: 1.00    SIEMENS: tse\_vfl

### Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

### Routine

Slab group 1	
Slabs	1
Position	R3.5 P1.1 F35.0
Orientation	S > T-3.9 > C0.8
Phase enc. dir.	A >> P
Rotation	0.20 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	160
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
TR	6000 ms
TE	397 ms
Averages	1.0
Concatenations	1
Filter	Raw filter, Distortion Corr.(2D), Prescan Normalize
Coil elements	HEA;HEP;NE1,2

### Contrast

MTC	Off
Magn. preparation	Non-sel. IR
TI	2200 ms
Fat suppr.	None
Water suppr.	None
Restore magn.	Off
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

### Resolution

Base resolution	256
Phase resolution	101 %
Slice resolution	75 %
Phase partial Fourier	Allowed
Slice partial Fourier	7/8
Interpolation	On
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	On

Mode	2D
Unfiltered images	Off
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	On
Intensity	Weak
Slope	25
Elliptical filter	Off

### Geometry

Special sat.	None
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### System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R3.5 P1.1 F35.0
Orientation	S > T-3.9 > C0.8
Rotation	0.20 deg
F >> H	256 mm
A >> P	256 mm
R >> L	160 mm

### Physio

1st Signal/Mode	None
Dark blood	Off
Resp. control	Off

### Inline

Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off

# SIEMENS MAGNETOM Verio syngo MR B17

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

## Sequence

Introduction	On
Dimension	3D
Bandwidth	781 Hz/Px
Flow comp.	No
Allowed delay	30 s
Echo spacing	3.32 ms
Adiabatic-mode	Off

---

Define	Echo trains
Turbo factor	141
Slice turbo factor	2
Echo trains per slice	1
Echo train duration	860
RF pulse type	Normal
Gradient mode	Fast
Excitation	Non-sel.
Flip angle mode	T2 var

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\T1 AXIAL PRE  
 TA: 3:25 PAT: Off Voxel size: 1.0x1.0x3.0 mm Rel. SNR: 1.00 SIEMENS: gre

## Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

## Routine

Slice group 1	
Slices	46
Dist. factor	0 %
Position	L0.6 P3.6 F10.2
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	400.0 ms
TE	4.47 ms
Averages	2
Concatenations	1
Filter	Prescan Normalize, Elliptical filter
Coil elements	HEA;HEP;NE1,2

## Contrast

MTC	Off
Magn. preparation	None
Flip angle	80 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

## Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	On
PAT mode	None
Matrix Coil Mode	Auto (CP)
Image Filter	Off
Distortion Corr.	Off
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On

## Mode

### Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Tim CT mode	Off

### System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	P >> A
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

### Physio

1st Signal/Mode	None
Segments	1
Tagging	None
Dark blood	Off
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

# SIEMENS MAGNETOM Verio syngo MR B17

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	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	320 Hz/Px
Flow comp.	Yes
Allowed delay	0 s
-----	
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On



# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\localizer-NECK

TA: 0:19    PAT: Off    Voxel size: 2.0x1.6x6.0 mm    Rel. SNR: 1.00    SIEMENS: gre

### Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Phase resolution	80 %
Phase partial Fourier	Off
Interpolation	On
-----	
PAT mode	None
Matrix Coil Mode	Auto (CP)
-----	
Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

### Routine

Slice group 1	
Slices	3
Dist. factor	50 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Slice group 2	
Slices	3
Dist. factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	2
Dist. factor	150 %
Position	L0.0 P18.0 F150.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	38 %
FoV read	400 mm
FoV phase	100.0 %
Slice thickness	6.0 mm
TR	7.8 ms
TE	3.69 ms
Averages	1
Concatenations	8
Filter	Distortion Corr.(2D)
Coil elements	HEA;HEP;NE1,2;SP1,2

### Geometry

Multi-slice mode	Sequential
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Tim CT mode	Off

### System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off
-----	
Positioning mode	FIX
Table position	F
Table position	150 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	H >> F
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default
-----	
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

### Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

### Resolution

Base resolution	256
-----------------	-----

### Physio

1st Signal/Mode	None
-----------------	------

# SIEMENS MAGNETOM Verio syngo MR B17

Segments	1
Tagging	None
Dark blood	Off
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

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\TOF\_2D\_TRA  
 TA: 6:57 PAT: 2 Voxel size: 1.3x0.6x3.0 mm Rel. SNR: 1.00 SIEMENS: fl\_tof

### Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

### Routine

Slice group 1	
Slices	128
Dist. factor	-25.00 %
Position	L6.8 P24.1 F139.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	320 mm
FoV phase	75.0 %
Slice thickness	3.0 mm
TR	29 ms
TE	5.02 ms
Averages	1
Concatenations	128
Filter	Elliptical filter
Coil elements	HEA;HEP;NE1,2;SP1,2

### Contrast

TD	0.000 ms
MTC	Off
Flip angle	60 deg
Fat suppr.	None
Water suppr.	None
<hr/>	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

### Resolution

Base resolution	512
Phase resolution	50 %
Phase partial Fourier	Off
Interpolation	Off
<hr/>	
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
<hr/>	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On

Mode  
POCS Inplane  
Off

### Geometry

Multi-slice mode	Sequential
Series	Ascending
<hr/>	
Special sat.	Tracking F
Gap	10 mm
Thickness	40 mm

### System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

Positioning mode	REF
Table position	F
Table position	150 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	P >> A
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L6.8 P24.1 F139.4
Orientation	Transversal
Rotation	0.00 deg
R >> L	320 mm
A >> P	240 mm
F >> H	289 mm

### Physio

1st Signal/Mode	None
<hr/>	
Dark blood	Off

### Angio

Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	On
MIP-Cor	On
MIP-Tra	On
MIP-Time	Off
Save original images	On

# SIEMENS MAGNETOM Verio syngo MR B17

## Sequence

Introduction	On
Dimension	2D
Asymmetric echo	Allowed
Contrasts	1
Bandwidth	217 Hz/Px
Flow comp.	Yes
-----	
Gradient mode	Fast
RF spoiling	On

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\fl3d\_vibe\_SAG-PRE

TA: 1:45    PAT: 2    Voxel size: 0.9x0.9x0.9 mm    Rel. SNR: 1.00    SIEMENS: fl3d\_vibe

## Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

## Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L0.9 P13.0 F103.4
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.20 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	256
FoV read	352 mm
FoV phase	78.1 %
Slice thickness	0.90 mm
TR	3.97 ms
TE	1.43 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D), Normalize
Coil elements	HEA;HEP;NE1,2;SP1,2

## Contrast

Flip angle	25.0 deg
Fat suppr.	Q-fat sat.
Lines Per Shot	205
Water suppr.	None
Dixon	No Dixon
Save original images	On
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

## Resolution

Base resolution	384
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	On
Intensity	Medium
Cut off	20
Width	4
Unfiltered images	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off
POCS	Off

## Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None

## System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

Positioning mode	REF
Table position	F
Table position	150 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.9 P13.0 F103.4
Orientation	Sagittal
Rotation	0.20 deg
F >> H	352 mm
A >> P	275 mm
R >> L	231 mm

## Physio

1st Signal/Mode	None
Resp. control	Off

## Inline

# SIEMENS MAGNETOM Verio syngo MR B17

3D centric reordering	Off
Time to center	35.0 s
-----	
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	Off
Dimension	3D
Elliptical scanning	Off
Reordering	Centric
Asymmetric echo	Weak
Bandwidth	690 Hz/Px
Optimization	Min. TE
Allowed delay	0 s
-----	
RF pulse type	Fast
Gradient mode	Fast*
Excitation	Non-sel.
RF spoiling	On

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\CORONAL 3D\_ 0.9X0.9X0.9\_10

TA: 3:21    PAT: 4    Voxel size: 0.9x0.9x0.9 mm    Rel. SNR: 1.00    SIEMENS: fl3d\_ce

## Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

## Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L2.9 P14.7 F164.2
Orientation	C > T4.6
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	11.1 %
Slices per slab	72
FoV read	340 mm
FoV phase	75.0 %
Slice thickness	0.90 mm
TR	3.31 ms
TE	1.25 ms
Averages	1
Filter	None
Coil elements	HEA;HEP;NE1,2;SP1,2

## Contrast

Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Each measurement

## Resolution

Base resolution	384
Phase resolution	100 %
Slice resolution	63 %
Phase partial Fourier	6/8
Slice partial Fourier	6/8
Interpolation	Off
-----	
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	2
Ref. lines 3D	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

## Geometry

Multi-slice mode	Sequential
Series	Ascending
-----	
Special sat.	None

## System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off
-----	
Positioning mode	REF
Table position	F
Table position	150 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	P >> A
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
Auto Coil Select	Off
-----	
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Maximum
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm

# SIEMENS MAGNETOM Verio syngo MR B17

A >> P	263 mm
F >> H	350 mm

## Physio

1st Signal/Mode	None
Segments	1

## Angio

3D centric reordering	On
Time to center	1.0 s
-----	
Subtract	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

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Allowed
Bandwidth	650 Hz/Px
Optimization	Min. TE TR
Allowed delay	0 s
-----	
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Phase Enc. Rewinder	On



# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\fl3d\_vibe\_SAG-POST

TA: 1:45    PAT: 2    Voxel size: 0.9x0.9x0.9 mm    Rel. SNR: 1.00    SIEMENS: fl3d\_vibe

## Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

## Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L0.9 P13.0 F103.4
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.20 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	256
FoV read	352 mm
FoV phase	78.1 %
Slice thickness	0.90 mm
TR	3.97 ms
TE	1.43 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D), Normalize
Coil elements	HEA;HEP;NE1,2;SP1,2

## Contrast

Flip angle	25.0 deg
Fat suppr.	Q-fat sat.
Lines Per Shot	205
Water suppr.	None
Dixon	No Dixon
Save original images	On
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

## Resolution

Base resolution	384
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	6/8
Interpolation	Off
-----	
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	On
Intensity	Medium
Cut off	20
Width	4
Unfiltered images	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off
POCS	Off

## Geometry

Multi-slice mode	Sequential
Series	Ascending
-----	
Special sat.	None

## System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

Positioning mode	FIX
Table position	F
Table position	150 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.9 P13.0 F103.4
Orientation	Sagittal
Rotation	0.20 deg
F >> H	352 mm
A >> P	275 mm
R >> L	231 mm

## Physio

1st Signal/Mode	None
-----	
Resp. control	Off

## Inline

# SIEMENS MAGNETOM Verio syngo MR B17

3D centric reordering	Off
Time to center	35.0 s
-----	
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	Off
Dimension	3D
Elliptical scanning	Off
Reordering	Centric
Asymmetric echo	Weak
Bandwidth	690 Hz/Px
Optimization	Min. TE
Allowed delay	0 s
-----	
RF pulse type	Fast
Gradient mode	Fast*
Excitation	Non-sel.
RF spoiling	On

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\fl3\_15\_tp\_retro\_iPAT\_.57X.57x2.5-fa20

TA: 1:42    PAT: 2    Voxel size: 0.6x0.6x2.5 mm    Rel. SNR: 1.00    SIEMENS: fl\_fq\_retro

### Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

### Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	L6.8 P20.2 F106.3
Orientation	T > C15.8
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
TR	95.25 ms
TE	10.00 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	HEA;HEP;NE1,2;SP1,2

### Contrast

Flip angle	20 deg
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

### Resolution

Base resolution	448
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

### Geometry

Multi-slice mode	Sequential
------------------	------------

### Series

Series	Ascending
Special sat.	None

### System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

### Positioning mode

Positioning mode	FIX
Table position	F
Table position	150 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

### Shim mode

Shim mode	Tune up
Adjust with body coil	On
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto

### Adjust volume

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

### Physio

1st Signal/Mode	Pulse/Retro
Average cycle	No Signal ms
Calculated phases	30
Segments	3
Arrhythmia detection	None

### Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	15 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	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

# SIEMENS MAGNETOM Verio syngo MR B17

MIP-Time	Off
Save original images	On

## Sequence

Introduction	Off
Asymmetric echo	Strong
Contrasts	1
Bandwidth	192 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\fl3\_50\_tp\_retro\_iPAT\_.57X.57x2.5-fa20

TA: 1:42    PAT: 2    Voxel size: 0.6x0.6x2.5 mm    Rel. SNR: 1.00    SIEMENS: fl\_fq\_retro

### Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

### Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	L6.8 P15.0 F188.3
Orientation	T > C-10.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
TR	95.25 ms
TE	10.00 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	HEA;HEP;NE1,2;SP1,2

### Contrast

Flip angle	20 deg
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

### Resolution

Base resolution	448
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

### Geometry

Multi-slice mode	Sequential
------------------	------------

### Series

Series	Ascending
Special sat.	None

### System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

### Positioning mode

Positioning mode	REF
Table position	F
Table position	150 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

### Shim mode

Shim mode	Tune up
Adjust with body coil	On
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

### Physio

1st Signal/Mode	Pulse/Retro
Average cycle	No Signal ms
Calculated phases	30
Segments	3
Arrhythmia detection	None

### Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	50 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	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

# SIEMENS MAGNETOM Verio syngo MR B17

MIP-Time	Off
Save original images	On

## Sequence

Introduction	Off
Asymmetric echo	Strong
Contrasts	1
Bandwidth	192 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\fl3\_50\_tp\_retro\_iPAT\_.57X.57x2.5-fa20

TA: 1:42    PAT: 2    Voxel size: 0.6x0.6x2.5 mm    Rel. SNR: 1.00    SIEMENS: fl\_fq\_retro

### Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

### Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	L6.8 P20.2 F106.3
Orientation	T > C15.8
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
TR	95.25 ms
TE	10.00 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	HEA;HEP;NE1,2;SP1,2

### Contrast

Flip angle	20 deg
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

### Resolution

Base resolution	448
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

### Geometry

Multi-slice mode	Sequential
------------------	------------

### Series

Series	Ascending
Special sat.	None

### System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

Positioning mode	REF
Table position	F
Table position	150 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

Shim mode	Tune up
Adjust with body coil	On
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

### Physio

1st Signal/Mode	Pulse/Retro
Average cycle	No Signal ms
Calculated phases	30
Segments	3
Arrhythmia detection	None

### Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	50 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	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

# SIEMENS MAGNETOM Verio syngo MR B17

MIP-Time	Off
Save original images	On

## Sequence

Introduction	Off
Asymmetric echo	Strong
Contrasts	1
Bandwidth	192 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On



# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\fl3\_50\_tp\_retro\_iPAT\_.57X.57x2.5-fa20

TA: 1:42    PAT: 2    Voxel size: 0.6x0.6x2.5 mm    Rel. SNR: 1.00    SIEMENS: fl\_fq\_retro

## Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

## Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	L6.8 P15.0 F188.3
Orientation	T > C-10.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	2.5 mm
TR	95.25 ms
TE	10.00 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D)
Coil elements	HEA;HEP;NE1,2;SP1,2

## Contrast

Flip angle	20 deg
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

## Resolution

Base resolution	448
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

## Geometry

Multi-slice mode	Sequential
------------------	------------

## Series

Series	Ascending
Special sat.	None

## System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	On
SP8	Off
SP6	Off
SP3	Off
SP1	On
SP7	Off
SP5	Off

## Positioning mode

Positioning mode	REF
Table position	F
Table position	150 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

## Shim mode

Shim mode	Tune up
Adjust with body coil	On
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

## Physio

1st Signal/Mode	Pulse/Retro
Average cycle	No Signal ms
Calculated phases	30
Segments	3
Arrhythmia detection	None

## Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	50 cm/s
Direction	Through plane
Rephased images	On
Magnitude images	On
Phase images	On
Subtract	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

# SIEMENS MAGNETOM Verio syngo MR B17

MIP-Time	Off
Save original images	On

## Sequence

Introduction	Off
Asymmetric echo	Strong
Contrasts	1
Bandwidth	192 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\T1 AXIAL\_POST

TA: 3:25    PAT: Off    Voxel size: 1.0x1.0x3.0 mm    Rel. SNR: 1.00    SIEMENS: gre

### Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

### Routine

Slice group 1	
Slices	46
Dist. factor	0 %
Position	L0.6 P3.6 F10.2
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	400.0 ms
TE	4.47 ms
Averages	2
Concatenations	1
Filter	Prescan Normalize, Elliptical filter
Coil elements	HEA;HEP;NE1,2

### Contrast

MTC	Off
Magn. preparation	None
Flip angle	80 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

### Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	On
-----	
PAT mode	None
Matrix Coil Mode	Auto (CP)
-----	
Image Filter	Off
Distortion Corr.	Off
Unfiltered images	Off
Prescan Normalize	On
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On

### Mode

### Inplane

### Geometry

Multi-slice mode	Interleaved
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Tim CT mode	Off

### System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off
-----	
Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	P >> A
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default
-----	
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

### Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off
-----	
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

# SIEMENS MAGNETOM Verio syngo MR B17

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	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	320 Hz/Px
Flow comp.	Yes
Allowed delay	0 s
-----	
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On

# SIEMENS MAGNETOM Verio syngo MR B17

\\USER\ZAHID\_RESEARCH\NECK\CCSVI\_ALTERNATE\_120310\fl3d\_vibe-HEAD\_POST

TA: 1:45    PAT: 2    Voxel size: 0.9x0.9x0.9 mm    Rel. SNR: 1.00    SIEMENS: fl3d\_vibe

## Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	On
Intensity	Medium
Cut off	20
Width	4
Unfiltered images	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off
POCS	Off

## Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	R3.5 P1.1 F35.0
Orientation	S > T-3.9 > C0.8
Phase enc. dir.	A >> P
Rotation	0.20 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	256
FoV read	352 mm
FoV phase	78.1 %
Slice thickness	0.90 mm
TR	3.97 ms
TE	1.43 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(2D), Normalize
Coil elements	HEA;HEP;NE1,2

## Geometry

Multi-slice mode	Sequential
Series	Ascending
-----	
Special sat.	None
-----	

## System

Body	Off
NE2	On
NE1	On
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off

## Contrast

Flip angle	25.0 deg
Fat suppr.	Q-fat sat.
Lines Per Shot	205
Water suppr.	None
Dixon	No Dixon
Save original images	On
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R3.5 P1.1 F35.0
Orientation	S > T-3.9 > C0.8
Rotation	0.20 deg
F >> H	352 mm
A >> P	275 mm
R >> L	231 mm

## Resolution

Base resolution	384
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	6/8
Interpolation	Off
-----	
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Matrix Coil Mode	Auto (Triple)
Reference scan mode	Integrated

## Physio

1st Signal/Mode	None
-----	
Resp. control	Off

## Inline

# SIEMENS MAGNETOM Verio syngo MR B17

3D centric reordering	Off
Time to center	35.0 s
-----	
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	Off
Dimension	3D
Elliptical scanning	Off
Reordering	Centric
Asymmetric echo	Weak
Bandwidth	690 Hz/Px
Optimization	Min. TE
Allowed delay	0 s
-----	
RF pulse type	Fast
Gradient mode	Fast*
Excitation	Non-sel.
RF spoiling	On

## Table of contents

\\USER	ZAHID_RESEARCH	NECK	CCSVI_ALTERNATE_120310
			localizer-AZYGUS
			TOF_2D_TRA
			TOF_2D_TRA_FOR AZYGUS ARCH
			fl3_50_tp_retro_iPAT_.57X.57x2.5-fa20
			localizer
			DUAL-SWI_tra_p2_24_TE6/20_.5x.5x2
			3D SPACE SAG FLAIR
			T1 AXIAL PRE
			localizer-NECK
			TOF_2D_TRA
			fl3d_vibe_SAG-PRE
			CORONAL 3D_0.9X0.9X0.9_10
			fl3d_vibe_SAG-POST
			fl3_15_tp_retro_iPAT_.57X.57x2.5-fa20
			fl3_50_tp_retro_iPAT_.57X.57x2.5-fa20
			fl3_50_tp_retro_iPAT_.57X.57x2.5-fa20
			fl3_50_tp_retro_iPAT_.57X.57x2.5-fa20
			T1 AXIAL_POST
			fl3d_vibe-HEAD_POST