

McLeod Pavilion

Protocol: adult\_spine\_Cervical Spine 48CH HEAD

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Spin Echo
Coil Configuration	48Ch Head Coil	Imaging Options	Seq, EDR, Fast, SS, ARC
Plane	3-PLANE	<b>SCAN RANGE</b>	
Series Description	3-Plane Localizer	FOV	28.0
<b>SCAN TIMING</b>		Slice Thickness	3.0
TE	80.0	Slice Spacing	5.0
Number of Echoes	1	<b>ACQ TIMING</b>	
TR	1200.0	Freq	288
Receiver Bandwidth	83.33	Phase	160
<b>IMAGE ENHANCE</b>		Freq DIR	Unswap
Filter Choice	None	# of Acq. Before Pause	0
<b>GATING/TRIGGER</b>		Phase FOV	1.00
Auto Trigger Type	Off	Auto Shim	Auto
<b>FMRI</b>		Phase Correction	No
PSD Trigger	Internal	<b>USER CVS</b>	
View Order	Bottom/Up	User CV2	240.00
# of Repetitions REST	0	User CV13	1.00
# of Repetitions ACTIVE	0	<b>MULTI-PHASE</b>	
<b>SAT</b>		Seperate Series	0
Tag Type	None	Mask Phase	0
<b>TRICKS</b>		Mask Pause	0
Pause On/Off	On	<b>DIFFUSION</b>	
Auto Subtract	0	Recon All Images	On
Auto SCIC	Off	<b>CONTRAST</b>	
		Contrast Yes/No	No

3-Plane Localizer

3-Plane Localizer

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Protocol: adult\_spine\_Cervical Spine 48CH HEAD

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	48Ch Head Coil	Imaging Options	FC, NPW, EDR, TRF, Fast, FR
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	Sag T2 frFSE	FOV	18.0
<b>SCAN TIMING</b>		Slice Thickness	4.0
Flip Angle	111	Slice Spacing	0.0
TE	105.0	<b>ACQ TIMING</b>	
Number of Echoes	1	Freq	320
TR	3656.0	Phase	260
Echo Train Length	24	Freq DIR	A/P
Receiver Bandwidth	50.00	Fat Shift DIR	Normal (P)
<b>IMAGE ENHANCE</b>		NEX	4.00
Filter Choice	G	Auto Shim	Auto
<b>GATING/TRIGGER</b>		Phase Correction	No
Auto Trigger Type	Off	Flow Direction	Freq
<b>FMRI</b>		Compensation	
PSD Trigger	Internal	<b>USER CVS</b>	
View Order	Bottom/Up	User CV15	2.00
# of Repetitions REST	0	User CV18	1.00
# of Repetitions ACTIVE	0	User CV22	2.00
<b>SAT</b>		TR Min	3000.0
Tag Type	None	TR Max	10000.0
<b>TRICKS</b>		<b>MULTI-PHASE</b>	
Pause On/Off	On	Seperate Series	0
Auto Subtract	0	Mask Phase	0
Auto SCIC	On	Mask Pause	0
		<b>DIFFUSION</b>	
		Recon All Images	On
		<b>CONTRAST</b>	
		Contrast Yes/No	No

Sag T2 frFSE

Sag T2 frFSE

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	48Ch Head Coil	Imaging Options	NPW, EDR, TRF, Fast
Plane	OBLIQUE	SCAN RANGE	
Series Description	Sag T1 FSE Optimized	FOV	18.0
SCAN TIMING		Slice Thickness	4.0
Flip Angle	111	Slice Spacing	0.0
TE	Min Full	ACQ TIMING	
Number of Echoes	1	Freq	320
TR	600.0	Phase	224
Echo Train Length	4	Freq DIR	S/I
Receiver Bandwidth	41.67	Fat Shift DIR	Normal (S)
IMAGE ENHANCE		NEX	3.00
Filter Choice	G	# of Acq. Before Pause	0
GATING/TRIGGER		Auto Shim	Auto
Auto Trigger Type	Off	Phase Correction	No
FMRI		USER CVS	
PSD Trigger	Internal	User CV15	2.00
View Order	Bottom/Up	User CV16	1.00
# of Repetitions REST	0	User CV18	1.00
# of Repetitions ACTIVE	0	User CV22	1.00
SAT		TR Min	600.0
SAT Location	A	TR Max	900.0
Tag Type	None	MULTI-PHASE	
TRICKS		Seperate Series	0
Pause On/Off	On	Mask Phase	0
Auto Subtract	0	Mask Pause	0
Auto SCIC	2	DIFFUSION	
		Recon All Images	On
		CONTRAST	
		Contrast Yes/No	No

Sag T1 FSE Optimized

Sag T1 FSE Optimized

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	48Ch Head Coil	Imaging Options	FC, NPW, Seq, EDR, TRF, Fast, IrP
Plane	OBLIQUE	PSD Name	frfse-xl
Series Description	Sag T2 FSE STIR		
SCAN TIMING		SCAN RANGE	
Flip Angle	111	FOV	18.0
TE	42.0	Slice Thickness	4.0
Number of Echoes	1	Slice Spacing	0.0
TR	3714.0		
TI	180	ACQ TIMING	
Echo Train Length	10	Freq	260
Receiver Bandwidth	31.25	Phase	260
		Freq DIR	A/P
IMAGE ENHANCE		Fat Shift DIR	Normal (P)
Filter Choice	G	NEX	2.00
		Auto Shim	Auto
GATING/TRIGGER		Phase Correction	No
Auto Trigger Type	Off	Flow Direction	Freq
		Compensation	
FMRI		USER CVS	
PSD Trigger	Internal	User CV15	2.00
View Order	Bottom/Up	User CV18	1.00
# of Repetitions REST	0	User CV22	1.00
# of Repetitions ACTIVE	0	TR Min	2500.0
		TR Max	5000.0
SAT		MULTI-PHASE	
SAT Location	A	Seperate Series	0
SAT Location	S	Mask Phase	0
SAT Location	I	Mask Pause	0
Tag Type	None		
TRICKS		DIFFUSION	
Pause On/Off	On	Recon All Images	On
Auto Subtract	0		
Auto SCIC	Off	CONTRAST	
		Contrast Yes/No	No

Sag T2 FSE STIR

Sag T2 FSE STIR

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Protocol: adult\_spine\_Cervical Spine 48CH HEAD

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	3D
Patient Position	Supine	Pulse Sequence	Cube
Coil Configuration	48Ch Head Coil	Imaging Options	FC, NPW, EDR, Fast, ZIP512, ZIP2, FR, ARC
Plane	OBLIQUE		
Series Description	3D Ax T2 Cube		
SCAN TIMING		SCAN RANGE	
TE	90.0	FOV	18.0
Number of Echoes	1	Slice Thickness	1.6
TR	1500.0	Location per Slab	90
Echo Train Length	60	Overlap Locations	0
Receiver Bandwidth	83.33		
IMAGE ENHANCE		ACQ TIMING	
Filter Choice	B	Freq	280
		Phase	250
GATING/TRIGGER		Freq DIR	R/L
Auto Trigger Type	Off	NEX	1.00
		Auto Shim	Auto
FMRI		Phase Correction	No
PSD Trigger	Internal	Flow Direction	Slice
View Order	Bottom/Up	Compensation	
# of Repetitions REST	0	USER CVS	
# of Repetitions ACTIVE	0	User CV22	2.00
SAT		MULTI-PHASE	
SAT Location	A	Seperate Series	0
Tag Type	None	Mask Phase	0
		Mask Pause	0
TRICKS		DIFFUSION	
Pause On/Off	On	Recon All Images	On
Auto Subtract	0		
Auto SCIC	2	CONTRAST	
		Contrast Yes/No	No

3D Ax T2 Cube

3D Ax T2 Cube

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Protocol: adult\_spine\_Cervical Spine 48CH HEAD

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	48Ch Head Coil	Imaging Options	FC, NPW, EDR, TRF, Fast, ARC
Plane	OBLIQUE		
Series Description	Ax T2 FSE BLOCK		
SCAN TIMING		SCAN RANGE	
Flip Angle	142	FOV	18.0
TE	110.0	Slice Thickness	4.0
Number of Echoes	1	Slice Spacing	1.0
TR	4987.0		
Echo Train Length	24	ACQ TIMING	
Receiver Bandwidth	41.67	Freq	260
		Phase	260
		Freq DIR	R/L
		Fat Shift DIR	Normal (L)
		NEX	3.00
		Auto Shim	Auto
		Phase Correction	No
		Flow Direction Compensation	Slice
IMAGE ENHANCE		USER CVS	
Filter Choice	G	User CV15	2.00
		User CV16	1.00
		User CV22	1.00
		TR Min	2500.0
		TR Max	6000.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0		
# of Repetitions ACTIVE	0		
SAT		CONTRAST	
SAT Location	A	Contrast Yes/No	No
SAT Location	S		
SAT Location	I		
Tag Type	None		
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	2		

Ax T2 FSE BLOCK

Ax T2 FSE BLOCK

Protocol: adult\_spine\_Cervical Spine 48CH HEAD

2D T2* MERGE THRU SPACES	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	Head First	Imaging Mode	2D
	Patient Position	Supine	Pulse Sequence	MERGE
	Coil Configuration	48Ch Head Coil	Imaging Options	FC, NPW, EDR, Fast, ARC
	Plane	OBLIQUE	<b>SCAN RANGE</b>	
	Series Description	2D T2* MERGE THRU SPACES	FOV	18.0
	<b>SCAN TIMING</b>		Slice Thickness	3.0
	Flip Angle	20	Slice Spacing	0.5
	Number of Echoes	3	<b>ACQ TIMING</b>	
	TR	890.8	Freq	320
	Receiver Bandwidth	41.67	Phase	192
	<b>IMAGE ENHANCE</b>		Freq DIR	R/L
	Filter Choice	A	NEX	2.00
	<b>GATING/TRIGGER</b>		Auto Shim	On
	Auto Trigger Type	Off	Phase Correction	No
	<b>FMRI</b>		<b>USER CVS</b>	
	PSD Trigger	Internal	User CV8	1.00
	View Order	Bottom/Up	User CV19	2.00
	# of Repetitions REST	0	User CV20	1.00
	# of Repetitions ACTIVE	0	TR Min	400.0
	<b>SAT</b>		TR Max	1200.0
	SAT Location	A	<b>MULTI-PHASE</b>	
	Tag Type	None	Seperate Series	0
	<b>TRICKS</b>		Mask Phase	0
	Pause On/Off	On	Mask Pause	0
Auto Subtract	0	<b>DIFFUSION</b>		
Auto SCIC	2	Recon All Images	On	
		<b>CONTRAST</b>		
		Contrast Yes/No	No	

2D T2\* MERGE THRU SPACES

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	48Ch Head Coil	Imaging Options	FC, NPW, EDR, TRF, Fast, ARC
Plane	OBLIQUE		
Series Description	Ax T2 FSE		
SCAN TIMING		SCAN RANGE	
Flip Angle	142	FOV	18.0
TE	110.0	Slice Thickness	4.0
Number of Echoes	1	Slice Spacing	1.0
TR	4987.0		
Echo Train Length	24	ACQ TIMING	
Receiver Bandwidth	41.67	Freq	260
		Phase	260
		Freq DIR	R/L
		Fat Shift DIR	Normal (L)
		NEX	3.00
		Auto Shim	Auto
		Phase Correction	No
		Flow Direction Compensation	Slice
IMAGE ENHANCE		USER CVS	
Filter Choice	G	User CV15	2.00
		User CV16	1.00
		User CV22	1.00
		TR Min	2500.0
		TR Max	6000.0
GATING/TRIGGER		MULTI-PHASE	
Auto Trigger Type	Off	Seperate Series	0
		Mask Phase	0
		Mask Pause	0
FMRI		DIFFUSION	
PSD Trigger	Internal	Recon All Images	On
View Order	Bottom/Up		
# of Repetitions REST	0		
# of Repetitions ACTIVE	0		
SAT		CONTRAST	
SAT Location	A	Contrast Yes/No	No
SAT Location	S		
SAT Location	I		
Tag Type	None		
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	2		

Ax T2 FSE

Ax T2 FSE



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Protocol: adult\_spine\_Cervical Spine 48CH HEAD

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	MERGE
Coil Configuration	48Ch Head Coil	Imaging Options	FC, NPW, EDR, Fast
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	COR T2* GRE TRAUMA	FOV	22.0
<b>SCAN TIMING</b>		Slice Thickness	3.0
Flip Angle	20	Slice Spacing	0.5
Number of Echoes	3	<b>ACQ TIMING</b>	
TR	410.1	Freq	280
Receiver Bandwidth	62.50	Phase	200
<b>IMAGE ENHANCE</b>		Freq DIR	S/I
Filter Choice	G	NEX	2.00
<b>GATING/TRIGGER</b>		Auto Shim	On
Auto Trigger Type	Off	Phase Correction	No
<b>FMRI</b>		<b>USER CVS</b>	
PSD Trigger	Internal	User CV8	1.00
View Order	Bottom/Up	User CV19	2.00
# of Repetitions REST	0	User CV20	1.00
# of Repetitions ACTIVE	0	TR Min	400.0
<b>SAT</b>		TR Max	1200.0
Tag Type	None	<b>MULTI-PHASE</b>	
<b>TRICKS</b>		Seperate Series	0
Pause On/Off	On	Mask Phase	0
Auto Subtract	0	Mask Pause	0
Auto SCIC	Off	<b>DIFFUSION</b>	
		Recon All Images	On
		<b>CONTRAST</b>	
		Contrast Yes/No	No

COR T2\* GRE TRAUMA

COR T2\* GRE TRAUMA

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Spin Echo
Coil Configuration	48Ch Head Coil	Imaging Options	Seq, EDR, Fast, SS, ARC
Plane	3-PLANE	<b>SCAN RANGE</b>	
Series Description	*ONLY IF CONSTRAST***	FOV	30.0
<b>SCAN TIMING</b>		Slice Thickness	15.0
TE	80.0	Slice Spacing	5.0
Number of Echoes	1	<b>ACQ TIMING</b>	
TR	1200.0	Freq	384
Receiver Bandwidth	83.33	Phase	128
<b>IMAGE ENHANCE</b>		Freq DIR	Unswap
Filter Choice	None	# of Acq. Before Pause	0
<b>GATING/TRIGGER</b>		Phase FOV	1.00
Auto Trigger Type	Off	Auto Shim	Auto
<b>FMRI</b>		Phase Correction	No
PSD Trigger	Internal	<b>USER CVS</b>	
View Order	Bottom/Up	User CV2	240.00
# of Repetitions REST	0	User CV13	1.00
# of Repetitions ACTIVE	0	<b>MULTI-PHASE</b>	
<b>SAT</b>		Seperate Series	0
Tag Type	None	Mask Phase	0
<b>TRICKS</b>		Mask Pause	0
Pause On/Off	On	<b>DIFFUSION</b>	
Auto Subtract	0	Recon All Images	On
Auto SCIC	Off	<b>CONTRAST</b>	
		Contrast Yes/No	No

\*ONLY IF CONSTRAST\*\*\*

\*ONLY IF CONSTRAST\*\*\*

Protocol: adult\_spine\_Cervical Spine 48CH HEAD

Ax T1 FSE PRE	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>		Ax T1 FSE PRE
	Patient Entry	Head First	Imaging Mode	2D	
	Patient Position	Supine	Pulse Sequence	FSE-XL	
	Coil Configuration	48Ch Head Coil	Imaging Options	NPW, EDR, TRF, Fast, ARC	
	Plane	OBLIQUE	<b>SCAN RANGE</b>		
	Series Description	Ax T1 FSE PRE	FOV	18.0	
	<b>SCAN TIMING</b>		Slice Thickness	4.0	
	Flip Angle	142	Slice Spacing	1.0	
	TE	Min Full	<b>ACQ TIMING</b>		
	Number of Echoes	1	Freq	288	
	TR	705.0	Phase	192	
	Echo Train Length	3	Freq DIR	R/L	
	Receiver Bandwidth	31.25	Fat Shift DIR	Normal (L)	
	<b>IMAGE ENHANCE</b>		NEX	2.00	
	Filter Choice	G	# of Acq. Before Pause	0	
	<b>GATING/TRIGGER</b>		Auto Shim	Auto	
	Auto Trigger Type	Off	Phase Correction	Yes	
	<b>FMRI</b>		<b>USER CVS</b>		
	PSD Trigger	Internal	User CV15	2.00	
	View Order	Bottom/Up	User CV16	1.00	
# of Repetitions REST	0	User CV22	1.00		
# of Repetitions ACTIVE	0	TR Min	550.0		
<b>SAT</b>		TR Max	900.0		
SAT Location	A	<b>MULTI-PHASE</b>			
Tag Type	None	Seperate Series	0		
<b>TRICKS</b>		Mask Phase	0		
Pause On/Off	On	Mask Pause	0		
Auto Subtract	0	<b>DIFFUSION</b>			
Auto SCIC	2	Recon All Images	On		
		<b>CONTRAST</b>			
		Contrast Yes/No	No		

Protocol: adult\_spine\_Cervical Spine 48CH HEAD

+C Sag T1 FSE	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	Head First	Imaging Mode	2D
	Patient Position	Supine	Pulse Sequence	FSE-XL
	Coil Configuration	48Ch Head Coil	Imaging Options	NPW, EDR, TRF, Fast, ARC
	Plane	OBLIQUE	<b>SCAN RANGE</b>	
	Series Description	+C Sag T1 FSE	FOV	18.0
	<b>SCAN TIMING</b>		Slice Thickness	4.0
	Flip Angle	111	Slice Spacing	0.0
	TE	Min Full	<b>ACQ TIMING</b>	
	Number of Echoes	1	Freq	320
	TR	600.0	Phase	224
	Echo Train Length	4	Freq DIR	S/I
	Receiver Bandwidth	41.67	Fat Shift DIR	Normal (S)
	<b>IMAGE ENHANCE</b>		NEX	3.00
	Filter Choice	G	# of Acq. Before Pause	0
	<b>GATING/TRIGGER</b>		Auto Shim	Auto
	Auto Trigger Type	Off	Phase Correction	No
	<b>FMRI</b>		<b>USER CVS</b>	
	PSD Trigger	Internal	User CV15	2.00
	View Order	Bottom/Up	User CV16	1.00
	# of Repetitions REST	0	User CV19	1.00
	# of Repetitions ACTIVE	0	User CV22	1.00
	<b>SAT</b>		TR Min	600.0
	Tag Type	None	TR Max	900.0
	Fat/Water Saturation	Fat	<b>MULTI-PHASE</b>	
<b>TRICKS</b>		Seperate Series	0	
Pause On/Off	On	Mask Phase	0	
Auto Subtract	0	Mask Pause	0	
Auto SCIC	2	<b>DIFFUSION</b>		
		Recon All Images	On	
		<b>CONTRAST</b>		
		Contrast Yes/No	Yes	

+C Sag T1 FSE

Protocol: adult\_spine\_Cervical Spine 48CH HEAD

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	48Ch Head Coil	Imaging Options	NPW, EDR, TRF, Fast, ARC
Plane	OBLIQUE	SCAN RANGE	
Series Description	+C Ax T1 F/S	FOV	18.0
SCAN TIMING		Slice Thickness	4.0
Flip Angle	142	Slice Spacing	1.0
TE	Min Full	ACQ TIMING	
Number of Echoes	1	Freq	288
TR	813.0	Phase	192
Echo Train Length	3	Freq DIR	R/L
Receiver Bandwidth	31.25	Fat Shift DIR	Normal (L)
IMAGE ENHANCE		NEX	2.00
Filter Choice	G	# of Acq. Before Pause	0
GATING/TRIGGER		Auto Shim	Auto
Auto Trigger Type	Off	Phase Correction	Yes
FMRI		USER CVS	
PSD Trigger	Internal	User CV15	2.00
View Order	Bottom/Up	User CV16	1.00
# of Repetitions REST	0	User CV19	1.00
# of Repetitions ACTIVE	0	User CV22	1.00
SAT		TR Min	550.0
SAT Location	A	TR Max	900.0
Tag Type	None	MULTI-PHASE	
Fat/Water Saturation	Fat	Seperate Series	0
TRICKS		Mask Phase	0
Pause On/Off	On	Mask Pause	0
Auto Subtract	0	DIFFUSION	
Auto SCIC	2	Recon All Images	On
		CONTRAST	
		Contrast Yes/No	No

+C Ax T1 F/S

+C Ax T1 F/S