

Protocol: adult_lowerExtremities_HIP ARTHROGRAM

3-Plane Localizer	PATIENT POSITION		IMAGING PARAMETERS	
	Patient Entry	Feet First	Imaging Mode	2D
	Patient Position	Supine	Pulse Sequence	Spin Echo
	Coil Configuration	HD 8Ch Body Array by GE	Imaging Options	Seq, EDR, Fast, SS, ARC
	Plane	3-PLANE	SCAN RANGE	
	Series Description	3-Plane Localizer	FOV	48.0
	SCAN TIMING		Slice Thickness	8.0
	TE	80.0	Slice Spacing	0.0
	Number of Echoes	1	ACQ TIMING	
	TR	Minimum	Freq	352
	Receiver Bandwidth	83.33	Phase	160
	IMAGE ENHANCE		Freq DIR	Unswap
	Filter Choice	None	# of Acq. Before Pause	0
	GATING/TRIGGER		Phase FOV	1.00
	Auto Trigger Type	Off	Auto Shim	Auto
	FMRI		Phase Correction	No
	PSD Trigger	Internal	USER CVS	
	Slice Order	Interleaved	User CV2	240.00
	View Order	Bottom/Up	MULTI-PHASE	
	# of Repetitions REST	0	Seperate Series	0
	# of Repetitions ACTIVE	0	Mask Phase	0
	SAT		Mask Pause	0
	Tag Type	None	DIFFUSION	
	TRICKS		Recon All Images	On
	Pause On/Off	On	CONTRAST	
Auto Subtract	0	Contrast Yes/No	No	
Auto SCIC	Off			
OTHERS				
Protocol Notes	<p><i>This protocol is built based on Express coil suite. Please select the appropriate coil which is available in your site and optimizing the parameters accordingly.</i></p>			

3-Plane Localizer

Protocol: adult_lowerExtremities_HIP ARTHROGRAM

Cor T1 FSE	PATIENT POSITION		IMAGING PARAMETERS		Cor T1 FSE
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>	
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>	
	Coil Configuration	<i>HD 8Ch Body Array by GE</i>	Imaging Options	<i>NPW, TRF, Fast, MRF</i>	
	Plane	<i>CORONAL</i>	SCAN RANGE		
	Series Description	<i>Cor T1 FSE</i>	FOV	<i>36.0</i>	
	SCAN TIMING		Slice Thickness	<i>4.0</i>	
	Flip Angle	<i>160</i>	Slice Spacing	<i>0.5</i>	
	TE	<i>Min Full</i>	ACQ TIMING		
	Number of Echoes	<i>1</i>	Freq	<i>320</i>	
	TR	<i>457.0</i>	Phase	<i>224</i>	
	Echo Train Length	<i>2</i>	Freq DIR	<i>S/I</i>	
	Receiver Bandwidth	<i>35.71</i>	Fat Shift DIR	<i>Normal (I)</i>	
	IMAGE ENHANCE		NEX	<i>3.00</i>	
	Filter Choice	<i>None</i>	Phase FOV	<i>1.00</i>	
	GATING/TRIGGER		Auto Shim	<i>Auto</i>	
	Auto Trigger Type	<i>Off</i>	Phase Correction	<i>Yes</i>	
	FMRI		USER CVS		
	PSD Trigger	<i>Internal</i>	User CV8	<i>1.00</i>	
	Slice Order	<i>Interleaved</i>	User CV22	<i>1.00</i>	
	View Order	<i>Bottom/Up</i>	TR Min	<i>450.0</i>	
	# of Repetitions REST	<i>0</i>	TR Max	<i>650.0</i>	
	# of Repetitions ACTIVE	<i>0</i>	MULTI-PHASE		
	SAT		Seperate Series	<i>0</i>	
	Tag Type	<i>None</i>	Mask Phase	<i>0</i>	
TRICKS		Mask Pause	<i>0</i>		
Pause On/Off	<i>On</i>	DIFFUSION			
Auto Subtract	<i>0</i>	Recon All Images	<i>On</i>		
Auto SCIC	<i>2</i>	CONTRAST			
		Contrast Yes/No	<i>No</i>		

Protocol: adult_lowerExtremities_HIP ARTHROGRAM

Cor STIR	PATIENT POSITION		IMAGING PARAMETERS		Cor STIR
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>	
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>	
	Coil Configuration	<i>HD 8Ch Body Array by GE</i>	Imaging Options	<i>NPW, Seq, EDR, TRF, Fast, ZIP512, MRF, IrP</i>	
	Plane	<i>OBLIQUE</i>	SCAN RANGE		
	Series Description	<i>Cor STIR</i>	FOV	<i>34.0</i>	
	SCAN TIMING		Slice Thickness	<i>3.0</i>	
	Flip Angle	<i>160</i>	Slice Spacing	<i>1.0</i>	
	TE	<i>42.0</i>	ACQ TIMING		
	Number of Echoes	<i>1</i>	Freq	<i>288</i>	
	TR	<i>2800.0</i>	Phase	<i>224</i>	
	TI	<i>145</i>	Freq DIR	<i>Swap</i>	
	Echo Train Length	<i>8</i>	Fat Shift DIR	<i>Normal</i>	
	Receiver Bandwidth	<i>25.00</i>	NEX	<i>3.00</i>	
	IMAGE ENHANCE		Phase FOV	<i>1.00</i>	
	Filter Choice	<i>None</i>	Auto Shim	<i>Auto</i>	
	GATING/TRIGGER		Phase Correction	<i>No</i>	
	Auto Trigger Type	<i>Off</i>	USER CVS		
	FMRI		User CV21	<i>1.00</i>	
	PSD Trigger	<i>Internal</i>	User CV22	<i>1.00</i>	
Slice Order	<i>Interleaved</i>	MULTI-PHASE			
View Order	<i>Bottom/Up</i>	Seperate Series	<i>0</i>		
# of Repetitions REST	<i>0</i>	Mask Phase	<i>0</i>		
# of Repetitions ACTIVE	<i>0</i>	Mask Pause	<i>0</i>		
SAT		DIFFUSION			
Tag Type	<i>None</i>	Recon All Images	<i>On</i>		
TRICKS		CONTRAST			
Pause On/Off	<i>On</i>	Contrast Yes/No	<i>No</i>		
Auto Subtract	<i>0</i>				
Auto SCIC	<i>2</i>				

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>Spin Echo</i>
Coil Configuration	<i>HD 8Ch Body Array by GE</i>	Imaging Options	<i>Fast, SS</i>
Plane	<i>OBLIQUE</i>	SCAN RANGE	
Series Description	<i>---AFFECTED HIP---</i>	FOV	<i>22.0</i>
SCAN TIMING		Slice Thickness	<i>5.0</i>
TE	<i>Minimum</i>	Slice Spacing	<i>1.0</i>
TR	<i>Minimum</i>	ACQ TIMING	
Receiver Bandwidth	<i>83.33</i>	Freq	<i>128</i>
IMAGE ENHANCE		Phase	<i>128</i>
Filter Choice	<i>None</i>	Freq DIR	<i>R/L</i>
GATING/TRIGGER		NEX	<i>1.0</i>
Auto Trigger Type	<i>Off</i>	# of Acq. Before Pause	<i>0</i>
FMRI		Phase FOV	<i>1.00</i>
PSD Trigger	<i>Internal</i>	Auto Shim	<i>Auto</i>
Slice Order	<i>Interleaved</i>	Phase Correction	<i>No</i>
View Order	<i>Bottom/Up</i>	USER CVS	
# of Repetitions REST	<i>0</i>	User CV2	<i>240.00</i>
# of Repetitions ACTIVE	<i>0</i>	User CV13	<i>1.00</i>
SAT		TR Min	<i>0.0</i>
Tag Type	<i>None</i>	TR Max	<i>0.0</i>
TRICKS		MULTI-PHASE	
Pause On/Off	<i>On</i>	Seperate Series	<i>0</i>
Auto Subtract	<i>0</i>	Mask Phase	<i>0</i>
Auto SCIC	<i>Off</i>	Mask Pause	<i>0</i>
		DIFFUSION	
		Recon All Images	<i>On</i>
		CONTRAST	
		Contrast Yes/No	<i>No</i>

Protocol: adult_lowerExtremities_HIP ARTHROGRAM

Ax T1 FSE FS	PATIENT POSITION		IMAGING PARAMETERS	
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>
	Coil Configuration	<i>HD 8Ch Body Array by GE</i>	Imaging Options	<i>NPW, EDR, TRF, Fast, MRF</i>
	Plane	<i>OBLIQUE</i>	SCAN RANGE	
	Series Description	<i>Ax T1 FSE FS</i>	FOV	<i>20.0</i>
	SCAN TIMING		Slice Thickness	<i>4.0</i>
	Flip Angle	<i>160</i>	Slice Spacing	<i>1.0</i>
	TE	<i>Min Full</i>	ACQ TIMING	
	Number of Echoes	<i>1</i>	Freq	<i>320</i>
	TR	<i>500.0</i>	Phase	<i>224</i>
	Echo Train Length	<i>2</i>	Freq DIR	<i>Unswap</i>
	Receiver Bandwidth	<i>50.00</i>	Fat Shift DIR	<i>Normal</i>
	IMAGE ENHANCE		NEX	<i>2.00</i>
	Filter Choice	<i>None</i>	# of Acq. Before Pause	<i>0</i>
	GATING/TRIGGER		Phase FOV	<i>1.00</i>
	Auto Trigger Type	<i>Off</i>	Auto Shim	<i>Auto</i>
	FMRI		Phase Correction	<i>Yes</i>
	PSD Trigger	<i>Internal</i>	USER CVS	
	Slice Order	<i>Interleaved</i>	User CV8	<i>1.00</i>
View Order	<i>Bottom/Up</i>	User CV19	<i>1.00</i>	
# of Repetitions REST	<i>0</i>	User CV22	<i>1.00</i>	
# of Repetitions ACTIVE	<i>0</i>	MULTI-PHASE		
SAT		Seperate Series	<i>0</i>	
Tag Type	<i>None</i>	Mask Phase	<i>0</i>	
Fat/Water Saturation	<i>Fat</i>	Mask Pause	<i>0</i>	
TRICKS		DIFFUSION		
Pause On/Off	<i>On</i>	Recon All Images	<i>On</i>	
Auto Subtract	<i>0</i>	CONTRAST		
Auto SCIC	<i>2</i>	Contrast Yes/No	<i>No</i>	

Ax T1 FSE FS

Protocol: adult_lowerExtremities_HIP ARTHROGRAM

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>
Coil Configuration	<i>HD 8Ch Body Array by GE;HD 8ch Shoulder Array by NeoCoil</i>	Imaging Options	<i>NPW, EDR, TRF, Fast, MRF</i>
SCAN TIMING		SCAN RANGE	
Plane	<i>OBLIQUE</i>	FOV	<i>20.0</i>
Series Description	<i>Ax PD FSE FS</i>	Slice Thickness	<i>4.0</i>
Flip Angle	<i>120</i>	Slice Spacing	<i>1.0</i>
TE	<i>30.0</i>	ACQ TIMING	
Number of Echoes	<i>1</i>	Freq	<i>288</i>
TR	<i>2000.0</i>	Phase	<i>224</i>
Echo Train Length	<i>8</i>	Freq DIR	<i>Unswap</i>
Receiver Bandwidth	<i>31.25</i>	Fat Shift DIR	<i>Normal</i>
IMAGE ENHANCE		NEX	<i>4.00</i>
Filter Choice	<i>A</i>	Phase FOV	<i>1.00</i>
GATING/TRIGGER		Auto Shim	<i>Auto</i>
Auto Trigger Type	<i>Off</i>	Phase Correction	<i>Yes</i>
FMRI		USER CVS	
PSD Trigger	<i>Internal</i>	User CV8	<i>1.00</i>
Slice Order	<i>Interleaved</i>	User CV19	<i>1.00</i>
View Order	<i>Bottom/Up</i>	User CV21	<i>1.00</i>
# of Repetitions REST	<i>0</i>	User CV22	<i>1.00</i>
# of Repetitions ACTIVE	<i>0</i>	TR Min	<i>2000.0</i>
SAT		TR Max	<i>5000.0</i>
Tag Type	<i>None</i>	MULTI-PHASE	
Fat/Water Saturation	<i>Fat Classic</i>	Seperate Series	<i>0</i>
TRICKS		Mask Phase	<i>0</i>
Pause On/Off	<i>On</i>	Mask Pause	<i>0</i>
Auto Subtract	<i>0</i>	DIFFUSION	
Auto SCIC	<i>2</i>	Recon All Images	<i>On</i>
		CONTRAST	
		Contrast Yes/No	<i>No</i>

Ax PD FSE FS

Ax PD FSE FS

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Cor PD FSE FS	PATIENT POSITION		IMAGING PARAMETERS		Cor PD FSE FS
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>	
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>	
	Coil Configuration	<i>HD 8Ch Body Array by GE</i>	Imaging Options	<i>NPW, EDR, TRF, Fast, MRF</i>	
	Plane	<i>OBLIQUE</i>	SCAN RANGE		
	Series Description	<i>Cor PD FSE FS</i>	FOV	<i>24.0</i>	
	SCAN TIMING		Slice Thickness	<i>4.0</i>	
	Flip Angle	<i>120</i>	Slice Spacing	<i>0.5</i>	
	TE	<i>30.0</i>	ACQ TIMING		
	Number of Echoes	<i>1</i>	Freq	<i>288</i>	
	TR	<i>2000.0</i>	Phase	<i>224</i>	
	Echo Train Length	<i>8</i>	Freq DIR	<i>Unswap</i>	
	Receiver Bandwidth	<i>31.25</i>	Fat Shift DIR	<i>Normal</i>	
	IMAGE ENHANCE		NEX	<i>4.00</i>	
	Filter Choice	<i>A</i>	Phase FOV	<i>1.00</i>	
	GATING/TRIGGER		Auto Shim	<i>Auto</i>	
	Auto Trigger Type	<i>Off</i>	Phase Correction	<i>Yes</i>	
	FMRI		USER CVS		
	PSD Trigger	<i>Internal</i>	User CV8	<i>1.00</i>	
	Slice Order	<i>Interleaved</i>	User CV19	<i>1.00</i>	
	View Order	<i>Bottom/Up</i>	User CV21	<i>1.00</i>	
	# of Repetitions REST	<i>0</i>	User CV22	<i>1.00</i>	
	# of Repetitions ACTIVE	<i>0</i>	TR Min	<i>2000.0</i>	
	SAT		TR Max	<i>5000.0</i>	
	Tag Type	<i>None</i>	MULTI-PHASE		
Fat/Water Saturation	<i>Fat Classic</i>	Seperate Series	<i>0</i>		
TRICKS		Mask Phase	<i>0</i>		
Pause On/Off	<i>On</i>	Mask Pause	<i>0</i>		
Auto Subtract	<i>0</i>	DIFFUSION			
Auto SCIC	<i>2</i>	Recon All Images	<i>On</i>		
		CONTRAST			
		Contrast Yes/No	<i>No</i>		

Protocol: adult_lowerExtremities_HIP ARTHROGRAM

Cor T1 FSE FS	PATIENT POSITION		IMAGING PARAMETERS	
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>
	Coil Configuration	<i>HD 8Ch Body Array by GE</i>	Imaging Options	<i>NPW, EDR, TRF, Fast, MRF</i>
	Plane	<i>OBLIQUE</i>	SCAN RANGE	
	Series Description	<i>Cor T1 FSE FS</i>	FOV	<i>24.0</i>
	SCAN TIMING		Slice Thickness	<i>4.0</i>
	Flip Angle	<i>160</i>	Slice Spacing	<i>1.0</i>
	TE	<i>Min Full</i>	ACQ TIMING	
	Number of Echoes	<i>1</i>	Freq	<i>320</i>
	TR	<i>500.0</i>	Phase	<i>224</i>
	Echo Train Length	<i>2</i>	Freq DIR	<i>Unswap</i>
	Receiver Bandwidth	<i>50.00</i>	Fat Shift DIR	<i>Normal</i>
	IMAGE ENHANCE		NEX	<i>2.00</i>
	Filter Choice	<i>None</i>	# of Acq. Before Pause	<i>0</i>
	GATING/TRIGGER		Phase FOV	<i>1.00</i>
	Auto Trigger Type	<i>Off</i>	Auto Shim	<i>Auto</i>
	FMRI		Phase Correction	<i>Yes</i>
	PSD Trigger	<i>Internal</i>	USER CVS	
	Slice Order	<i>Interleaved</i>	User CV8	<i>1.00</i>
	View Order	<i>Bottom/Up</i>	User CV19	<i>1.00</i>
	# of Repetitions REST	<i>0</i>	User CV22	<i>1.00</i>
	# of Repetitions ACTIVE	<i>0</i>	MULTI-PHASE	
	SAT		Seperate Series	<i>0</i>
	Tag Type	<i>None</i>	Mask Phase	<i>0</i>
Fat/Water Saturation	<i>Fat</i>	Mask Pause	<i>0</i>	
TRICKS		DIFFUSION		
Pause On/Off	<i>On</i>	Recon All Images	<i>On</i>	
Auto Subtract	<i>0</i>	CONTRAST		
Auto SCIC	<i>2</i>	Contrast Yes/No	<i>No</i>	

Cor T1 FSE FS

Protocol: adult_lowerExtremities_HIP ARTHROGRAM

Sag T1 FSE FS	PATIENT POSITION		IMAGING PARAMETERS	
	Patient Entry	<i>Feet First</i>	Imaging Mode	<i>2D</i>
	Patient Position	<i>Supine</i>	Pulse Sequence	<i>FSE-XL</i>
	Coil Configuration	<i>HD 8Ch Body Array by GE</i>	Imaging Options	<i>NPW, EDR, TRF, Fast, MRF</i>
	Plane	<i>OBLIQUE</i>	SCAN RANGE	
	Series Description	<i>Sag T1 FSE FS</i>	FOV	<i>20.0</i>
	SCAN TIMING		Slice Thickness	<i>4.0</i>
	Flip Angle	<i>160</i>	Slice Spacing	<i>1.0</i>
	TE	<i>Min Full</i>	ACQ TIMING	
	Number of Echoes	<i>1</i>	Freq	<i>320</i>
	TR	<i>500.0</i>	Phase	<i>224</i>
	Echo Train Length	<i>2</i>	Freq DIR	<i>Unswap</i>
	Receiver Bandwidth	<i>50.00</i>	Fat Shift DIR	<i>Normal</i>
	IMAGE ENHANCE		NEX	<i>2.00</i>
	Filter Choice	<i>None</i>	# of Acq. Before Pause	<i>0</i>
	GATING/TRIGGER		Phase FOV	<i>1.00</i>
	Auto Trigger Type	<i>Off</i>	Auto Shim	<i>Auto</i>
	FMRI		Phase Correction	<i>Yes</i>
	PSD Trigger	<i>Internal</i>	USER CVS	
	Slice Order	<i>Interleaved</i>	User CV8	<i>1.00</i>
	View Order	<i>Bottom/Up</i>	User CV19	<i>1.00</i>
	# of Repetitions REST	<i>0</i>	User CV22	<i>1.00</i>
	# of Repetitions ACTIVE	<i>0</i>	MULTI-PHASE	
	SAT		Seperate Series	<i>0</i>
	Tag Type	<i>None</i>	Mask Phase	<i>0</i>
Fat/Water Saturation	<i>Fat</i>	Mask Pause	<i>0</i>	
TRICKS		DIFFUSION		
Pause On/Off	<i>On</i>	Recon All Images	<i>On</i>	
Auto Subtract	<i>0</i>	CONTRAST		
Auto SCIC	<i>2</i>	Contrast Yes/No	<i>No</i>	

Sag T1 FSE FS

Protocol: adult_lowerExtremities_HIP ARTHROGRAM

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Feet First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	HD T/R Knee Array by Invivo	Imaging Options	FC, NPW, EDR, TRF, Fast, MRF
Plane	OBLIQUE		
Series Description	Sag T2 FSE FS		
SCAN TIMING		SCAN RANGE	
Flip Angle	160	FOV	20.0
TE	85.0	Slice Thickness	4.0
Number of Echoes	1	Slice Spacing	0.5
TR	3000.0		
Echo Train Length	16	ACQ TIMING	
Receiver Bandwidth	35.71	Freq	320
		Phase	224
		Freq DIR	Swap
		Fat Shift DIR	Normal
		NEX	4.00
		Phase FOV	1.00
		Auto Shim	Auto
		Phase Correction	Yes
		Flow Direction Compensation	Freq
IMAGE ENHANCE		USER CVS	
Filter Choice	None	User CV8	1.00
		User CV19	0.90
		User CV21	2.00
		User CV22	1.00
		TR Min	3000.0
		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
Slice Order	Interleaved		
View Order	Bottom/Up	CONTRAST	
# of Repetitions REST	0	Contrast Yes/No	No
# of Repetitions ACTIVE	0		
SAT			
SAT Location	S		
SAT Location	I		
Tag Type	None		
Fat/Water Saturation	Fat		
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	2		

Sag T2 FSE FS

Sag T2 FSE FS