

Protocol: adult\_upperExtremities\_THUMB

PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	Fiesta
Coil Configuration	HD T/R Knee Array by Invivo; HD Wrist Array by Invivo	Imaging Options	Seq, Fast
SCAN TIMING		SCAN RANGE	
Plane	3-PLANE	FOV	24.0
Series Description	3-Plane Localizer	Slice Thickness	5.0
Flip Angle	50	Slice Spacing	5.0
TE	Minimum	ACQ TIMING	
Number of Echoes	1	Freq	256
Receiver Bandwidth	62.50	Phase	128
IMAGE ENHANCE		Freq DIR	Unswap
Filter Choice	None	NEX	1.00
GATING/TRIGGER		# of Acq. Before Pause	0
Auto Trigger Type	Off	Phase FOV	1.00
MULTI-PHASE		Auto Shim	Auto
Seperate Series	0	Phase Correction	No
Mask Phase	0	FMRI	
Mask Pause	0	PSD Trigger	Internal
DIFFUSION		Slice Order	Interleaved
Recon All Images	On	View Order	Bottom/Up
CONTRAST		# of Repetitions REST	0
Contrast Yes/No	No	# of Repetitions ACTIVE	0
		SAT	
		Tag Type	None
		TRICKS	
		Pause On/Off	On
		Auto Subtract	0
		Auto SCIC	Off

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	SPGR
Coil Configuration	HD T/R Knee Array by Invivo;HD Wrist Array by Invivo	Imaging Options	Fast, Calib
Plane	AXIAL	PSD Name	cal2d
Series Description	2D Calibration	IMAGE ENHANCE	
SCAN RANGE		Filter Choice	None
FOV	30.0	GATING/TRIGGER	
Slice Thickness	7.0	Auto Trigger Type	Off
Slice Spacing	0.0	MULTI-PHASE	
ACQ TIMING		Seperate Series	0
Freq DIR	R/L	Mask Phase	0
Auto Shim	Auto	Mask Pause	0
Phase Correction	No	DIFFUSION	
FMRI		Recon All Images	On
PSD Trigger	Internal	CONTRAST	
Slice Order	Interleaved	Contrast Yes/No	No
View Order	Bottom/Up		
# of Repetitions REST	0		
# of Repetitions ACTIVE	0		
SAT			
Tag Type	None		
TRICKS			
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	Off		

2D Calibration

2D Calibration

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	HD Wrist Array by Invivo	Imaging Options	NPW, Fast, MRF
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	AX T1	FOV	12.0
<b>SCAN TIMING</b>		Slice Thickness	3.0
Flip Angle	180	Slice Spacing	0.3
TE	Min Full	<b>ACQ TIMING</b>	
Number of Echoes	1	Freq	320
TR	402.0	Phase	224
Echo Train Length	3	Freq DIR	Unswap
Receiver Bandwidth	31.25	Fat Shift DIR	Normal
<b>IMAGE ENHANCE</b>		NEX	2.00
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	Yes
PSD Trigger	Internal	<b>USER CVS</b>	
Slice Order	Interleaved	User CV8	1.00
View Order	Bottom/Up	User CV22	1.00
# of Repetitions REST	0	TR Min	350.0
# of Repetitions ACTIVE	0	TR Max	750.0
<b>SAT</b>		<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	Off	Recon All Images	On
		<b>CONTRAST</b>	
		Contrast Yes/No	No

AX T1

AX T1

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	HD T/R Knee Array by Invivo; HD Wrist Array by Invivo	Imaging Options	NPW, TRF, Fast
SCAN TIMING		SCAN RANGE	
Plane	OBLIQUE	FOV	12.0
Series Description	AX PD FSE FS	Slice Thickness	2.6
Flip Angle	160	Slice Spacing	0.2
TE	Min Full	ACQ TIMING	
Number of Echoes	1	Freq	288
TR	2455.0	Phase	192
Echo Train Length	8	Freq DIR	Unswap
Receiver Bandwidth	25.00	Fat Shift DIR	Normal
IMAGE ENHANCE		NEX	4.00
Filter Choice	None	Phase FOV	1.00
GATING/TRIGGER		Auto Shim	Auto
Auto Trigger Type	Off	Phase Correction	No
FMRI		USER CVS	
PSD Trigger	Internal	User CV19	1.00
Slice Order	Interleaved	TR Min	2000.0
View Order	Bottom/Up	TR Max	4000.0
# of Repetitions REST	0	MULTI-PHASE	
# of Repetitions ACTIVE	0	Seperate Series	0
SAT		Mask Phase	0
SAT Location	S	Mask Pause	0
SAT Location	I	DIFFUSION	
Tag Type	None	Recon All Images	On
Fat/Water Saturation	Fat Classic	CONTRAST	
TRICKS		Contrast Yes/No	No
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	2		

AX PD FSE FS

AX PD FSE FS

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	HD Wrist Array by Invivo	Imaging Options	TRF, Fast, MRF
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	COR T1	FOV	12.0
<b>SCAN TIMING</b>		Slice Thickness	3.0
Flip Angle	160	Slice Spacing	0.3
TE	Min Full	<b>ACQ TIMING</b>	
Number of Echoes	1	Freq	320
TR	484.0	Phase	224
Echo Train Length	3	Freq DIR	Unswap
Receiver Bandwidth	31.25	Fat Shift DIR	Normal
<b>IMAGE ENHANCE</b>		NEX	2.00
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	Yes
PSD Trigger	Internal	<b>USER CVS</b>	
Slice Order	Interleaved	User CV8	1.00
View Order	Bottom/Up	User CV22	1.00
# of Repetitions REST	0	TR Min	350.0
# of Repetitions ACTIVE	0	TR Max	750.0
<b>SAT</b>		<b>MULTI-PHASE</b>	
SAT Location	S	Seperate Series	0
SAT Location	I	Mask Phase	0
Tag Type	None	Mask Pause	0
<b>TRICKS</b>		<b>DIFFUSION</b>	
Pause On/Off	On	Recon All Images	On
Auto Subtract	0	<b>CONTRAST</b>	
Auto SCIC	Off	Contrast Yes/No	No

COR T1

COR T1

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	HD T/R Knee Array by Invivo; HD Wrist Array by Invivo	Imaging Options	NPW, TRF, Fast
SCAN TIMING		SCAN RANGE	
Plane	OBLIQUE	FOV	12.0
Series Description	COR PD FSE FS	Slice Thickness	2.6
Flip Angle	160	Slice Spacing	0.2
TE	Min Full	ACQ TIMING	
Number of Echoes	1	Freq	288
TR	2455.0	Phase	192
Echo Train Length	8	Freq DIR	Unswap
Receiver Bandwidth	25.00	Fat Shift DIR	Normal
IMAGE ENHANCE		NEX	4.00
Filter Choice	None	Phase FOV	1.00
GATING/TRIGGER		Auto Shim	Auto
Auto Trigger Type	Off	Phase Correction	No
FMRI		USER CVS	
PSD Trigger	Internal	User CV19	1.00
Slice Order	Interleaved	TR Min	2000.0
View Order	Bottom/Up	TR Max	4000.0
# of Repetitions REST	0	MULTI-PHASE	
# of Repetitions ACTIVE	0	Seperate Series	0
SAT		Mask Phase	0
SAT Location	S	Mask Pause	0
SAT Location	I	DIFFUSION	
Tag Type	None	Recon All Images	On
Fat/Water Saturation	Fat Classic	CONTRAST	
TRICKS		Contrast Yes/No	No
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	2		

COR PD FSE FS

COR PD FSE FS

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	3D
Patient Position	Supine	Pulse Sequence	MERGE
Coil Configuration	HD Wrist Array by Invivo	Imaging Options	EDR, Fast, ZIP2
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	3D Cor MERGE	FOV	12.0
<b>SCAN TIMING</b>		Slice Thickness	2.4
Flip Angle	5	Location per Slab	26
TE	Min Full	Overlap Locations	0
Number of Echoes	3	<b>ACQ TIMING</b>	
TR	Minimum	Freq	288
Receiver Bandwidth	31.25	Phase	192
<b>IMAGE ENHANCE</b>		Freq DIR	Unswap
Filter Choice	None	Phase FOV	1.00
<b>GATING/TRIGGER</b>		Auto Shim	Auto
Auto Trigger Type	Off	Phase Correction	No
<b>MULTI-PHASE</b>		<b>FMRI</b>	
Seperate Series	0	PSD Trigger	Internal
Mask Phase	0	Slice Order	Interleaved
Mask Pause	0	View Order	Bottom/Up
<b>DIFFUSION</b>		# of Repetitions REST	0
Recon All Images	On	# of Repetitions ACTIVE	0
<b>CONTRAST</b>		<b>SAT</b>	
Contrast Yes/No	No	Tag Type	None
		<b>TRICKS</b>	
		Pause On/Off	On
		Auto Subtract	0
		Auto SCIC	2

3D Cor MERGE

3D Cor MERGE

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	HD T/R Knee Array by Invivo; HD Wrist Array by Invivo	Imaging Options	NPW, TRF, Fast
SCAN TIMING		SCAN RANGE	
Plane	OBLIQUE	FOV	12.0
Series Description	SAG PD FSE FS	Slice Thickness	2.6
Flip Angle	160	Slice Spacing	0.2
TE	Min Full	ACQ TIMING	
Number of Echoes	1	Freq	288
TR	2455.0	Phase	192
Echo Train Length	8	Freq DIR	Unswap
Receiver Bandwidth	25.00	Fat Shift DIR	Normal
IMAGE ENHANCE		NEX	4.00
Filter Choice	None	Phase FOV	1.00
GATING/TRIGGER		Auto Shim	Auto
Auto Trigger Type	Off	Phase Correction	No
FMRI		USER CVS	
PSD Trigger	Internal	User CV19	1.00
Slice Order	Interleaved	TR Min	2000.0
View Order	Bottom/Up	TR Max	4000.0
# of Repetitions REST	0	MULTI-PHASE	
# of Repetitions ACTIVE	0	Seperate Series	0
SAT		Mask Phase	0
SAT Location	S	Mask Pause	0
SAT Location	I	DIFFUSION	
Tag Type	None	Recon All Images	On
Fat/Water Saturation	Fat Classic	CONTRAST	
TRICKS		Contrast Yes/No	No
Pause On/Off	On		
Auto Subtract	0		
Auto SCIC	2		

SAG PD FSE FS

SAG PD FSE FS



Protocol: adult\_upperExtremities\_THUMB

<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	Head First	Imaging Mode	3D
Patient Position	Supine	Pulse Sequence	SPGR
Plane	AXIAL	Imaging Options	EDR, Fast, ZIP2, Calib
Series Description	---optional contrast---	<b>SCAN RANGE</b>	
<b>SCAN TIMING</b>		FOV	48.0
Number of Echoes	1	Slice Thickness	15.0
Receiver Bandwidth	62.50	Location per Slab	32
<b>IMAGE ENHANCE</b>		Overlap Locations	0
Filter Choice	None	<b>ACQ TIMING</b>	
<b>GATING/TRIGGER</b>		Freq DIR	R/L
Auto Trigger Type	Off	Phase FOV	1.00
<b>FMRI</b>		Auto Shim	Auto
PSD Trigger	Internal	Phase Correction	No
Slice Order	Interleaved	<b>USER CVS</b>	
View Order	Bottom/Up	User CV23	100.00
# of Repetitions REST	0	<b>MULTI-PHASE</b>	
# of Repetitions ACTIVE	0	Seperate Series	0
<b>SAT</b>		Trigger Delay without AV	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

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	HD Wrist Array by Invivo	Imaging Options	NPW, Fast, MRF
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	+ C AX T1	FOV	12.0
<b>SCAN TIMING</b>		Slice Thickness	3.0
Flip Angle	180	Slice Spacing	0.3
TE	Min Full	<b>ACQ TIMING</b>	
Number of Echoes	1	Freq	320
TR	611.0	Phase	224
Echo Train Length	3	Freq DIR	Unswap
Receiver Bandwidth	31.25	Fat Shift DIR	Normal
<b>IMAGE ENHANCE</b>		NEX	2.00
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	Yes
PSD Trigger	Internal	<b>USER CVS</b>	
Slice Order	Interleaved	User CV8	1.00
View Order	Bottom/Up	User CV19	1.00
# of Repetitions REST	0	User CV22	1.00
# of Repetitions ACTIVE	0	TR Min	350.0
<b>SAT</b>		TR Max	750.0
Tag Type	None	<b>MULTI-PHASE</b>	
Fat/Water Saturation	Fat	Seperate Series	0
<b>TRICKS</b>		Mask Phase	0
Pause On/Off	On	Mask Pause	0
Auto Subtract	0	<b>DIFFUSION</b>	
Auto SCIC	Off	Recon All Images	On
		<b>CONTRAST</b>	
		Contrast Yes/No	Yes

+ C AX T1

+ C AX T1

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PATIENT POSITION		IMAGING PARAMETERS	
Patient Entry	Head First	Imaging Mode	2D
Patient Position	Supine	Pulse Sequence	FSE-XL
Coil Configuration	HD Wrist Array by Invivo	Imaging Options	TRF, Fast, MRF
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	+C COR T1	FOV	12.0
<b>SCAN TIMING</b>		Slice Thickness	3.0
Flip Angle	160	Slice Spacing	0.3
TE	Min Full	<b>ACQ TIMING</b>	
Number of Echoes	1	Freq	320
TR	643.0	Phase	224
Echo Train Length	3	Freq DIR	Unswap
Receiver Bandwidth	31.25	Fat Shift DIR	Normal
<b>IMAGE ENHANCE</b>		NEX	2.00
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	Yes
PSD Trigger	Internal	<b>USER CVS</b>	
Slice Order	Interleaved	User CV8	1.00
View Order	Bottom/Up	User CV19	1.00
# of Repetitions REST	0	User CV22	1.00
# of Repetitions ACTIVE	0	TR Min	350.0
<b>SAT</b>		TR Max	750.0
SAT Location	S	<b>MULTI-PHASE</b>	
SAT Location	I	Seperate Series	0
Tag Type	None	Mask Phase	0
Fat/Water Saturation	Fat	Mask Pause	0
<b>TRICKS</b>		<b>DIFFUSION</b>	
Pause On/Off	On	Recon All Images	On
Auto Subtract	0	<b>CONTRAST</b>	
Auto SCIC	Off	Contrast Yes/No	Yes

+C COR T1

+C COR T1