Austin Radiological Association

CT Pediatric Neuro Protocols

Questions?

Last Update: 8/6/2025 12:24 PM

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDIATRIC NEURO PROTOCOLS

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

IV GUIDELINES

*IV Contrast at the discretion of the Radiologist

Catheter	Injection Rate	PSI
BD Nexiva Diffusics		
24g	Less than or equal to 2cc/sec	325
22g	Less than 4cc/sec	325
20g	Greater than 4cc/sec	325
B Braun Safety Introcan		
24g	HAND INJECTION ONLY	
22g	Less than or equal to 2cc/sec	300
20g	Less than or equal to 4cc/sec	300
18g	Less than or equal to 6cc/sec	300
B Braun Safety 3 Introcan		
24g	Less than or equal to 2.5cc/sec	300
22g	Less than or equal to 3.5cc/sec	300
20g	Less than or equal to 6cc/sec	300

Set Injection Rate on Power injector based on patient's weight in Kilograms	
<16 kg/<35LBS	20ml @ 1.5 ml/sec
16-25 kg/35-55LBS	40ml @ 1.5 ml/ sec
26-34kg/56-75LBS	60ml @ 1.5 ml/sec
>35kg/>76LBS	80ml @ 2.0 ml/sec

FOR PEDI BRAINS, 5 MINUTE DELAY

St. David's Facilities for contrast protocol please refer to the: St. David's Health Care- Imaging Medication Dose Protocol- Adult and Pediatric.

Back to Pedi Neuro Protocol Page

Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality

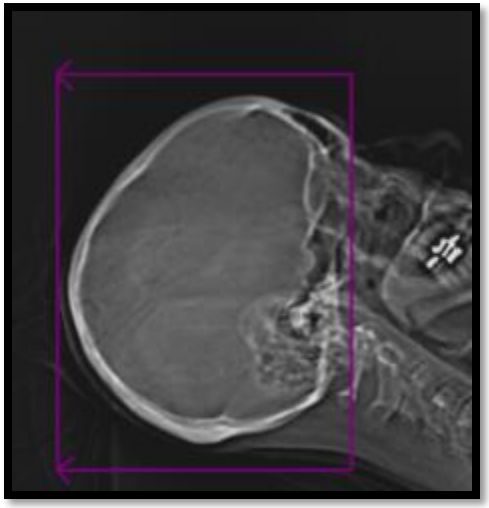
PEDIATRIC BRAIN-Revised-08/06/2025

SIEMENS PERSPECTIVE

Setup:

1. Supine lateral scout
2. Patient Positioning: Tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the tabletop.
3. In order to reduce radiation exposure to the lens of the eye, angle the gantry if you cannot place the patient's head within 15 degrees of the proper setup angle
4. Start scan at the bottom of the skull base and scan through the top of the head

DFOV: Appropriate for body habitus (Range 15-22)



PACS Series:

- Scout/Topogram
- Brain S
- Bone
- Bone Coronals (Only performed on 0-6yrs)
- ST Coronals for trauma less than 30 days
- Dose Report/Protocol Page

Set Injection Rate on Power injector based on patient's weight in Kilograms	
<16 kg/<35LBS	20ml @ 1.5 ml/sec
16-25 kg/35-55LBS	40ml @ 1.5 ml/ sec
26-34kg/56-75LBS	60ml @ 1.5 ml/sec
>35kg/>76LBS	80ml @ 2.0 ml/sec

***** 5 Minute Delay*****

St. David's Facilities for contrast protocol please refer to St.David's Health Care- Imaging Medication Dose Protocol

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Acquisition Parameters

Pedi 0-6 years

Scan Type	Spiral
Pitch	1.0
Detector Configuration	32 x 1.2
Slice Thickness	3.0
Rotation Time	1.0
Care Dose	on
Quality Ref mAs	190
kVp	110

Pedi 7-14 years

Scan Type	Spiral
Pitch	0.8
Detector Configuration	32 x 1.2
Slice Thickness	3.0
Rotation Time	1.0
Care Dose	on
Quality Ref mAs	190
kVp	130

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	J37s Medium
SAFIRE	2
Window	Cerebrum
Slice Thickness	3.0 x 3.0
Recon 2 Bone	
Kernel	H80s Very Sharp
SAFIRE	none
Window	Cranial Bone
Slice Thickness	3.0 x 3.0

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Recon 3 Coronal Bone	****Coronal Bone on pedi 0-6 years only**
Kernel	H80s Very Sharp
SAFIRE	None
Window	Cranial Bone
Slice Thickness	3.0 x 3.0
Recon 3 Coronal ST	****Coronal ST on trauma <30days**
Kernel	J37s Medium
SAFIRE	2
Window	Cerebrum
Slice Thickness	3.0 x 3.0

Back to Pedi Neuro Protocol Page

PEDI CAROTIDS-Revised-08/06/2025

SIEMENS PERSPECTIVE

Setup:

1. Supine, Lateral scout, no gantry angle
2. Scout should extend through the aortic arch for smart prep/bolus tracking
3. Patient Positioning:
    - Tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabletop
    - Retract shoulders as much as possible.
4. Scan from the bottom half of the orbits through the level of the arch (Includes great vessel origins and most of the arch)

DFOV: Preferred 15 cm

Scan Parameters:

1. Contrast:
    - At the discretion of the Radiologist

      Rate of IV -SEE IV GUIDELINES
      Type of IV contrast used: 350 mg/ml
      Volume of Contrast is based on the patient's weight
      A good rule of thumb is to use ~1 ml/lb. up to 75ml
2. Smart Prep/Bolus Tracking – start scanning upon entry of contrast at the level of the aortic arch or trigger at 60 HU

PACS Series:

- ST Axial
- Coronal MIP
- Sagittal MIP
- RT Carotid CPR
- LT Carotid CPR
- RT Vertebral CPR
- LT Vertebral CPR
- 3D VRT
- Patient Protocol/ Dose Report

Back to Pedi Neuro Protocol Page

DIAGNOSTIC IMAGING

Acquisition Parameters **15 and up use adult protocol

Scan Type	Spiral
Pitch	1.2
Detector Configuration	32 x 0.6
Slice Thickness	1.0
Rotation Time	0.6
Care Dose	on
Quality Ref mAs	40
kVp should be set based on patient weight	
kVp	<20 lbs 80 >20 lbs 110
FOV	150
Trigger	60

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I31f Medium Smooth
SAFIRE	2
Window	Baby neck
Slice Thickness	1.0 x 1.0
Recon 2 Reformat for 3D	
Kernel	I30f Medium Smooth ASA
SAFIRE	2
Window	CT Angio
Slice Thickness	0.6 x 0.4

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Recon 3 Coronal MIP	
Kernel	I31f Medium Smooth
SAFIRE	2
Window	CT Angio
Slice Thickness	1.0 x 1.0
Recon 4 Sagittal MIP	
Kernel	I31f Medium Smooth
SAFIRE	2
Window	CT Angio
Slice Thickness	1.0 x 1.0

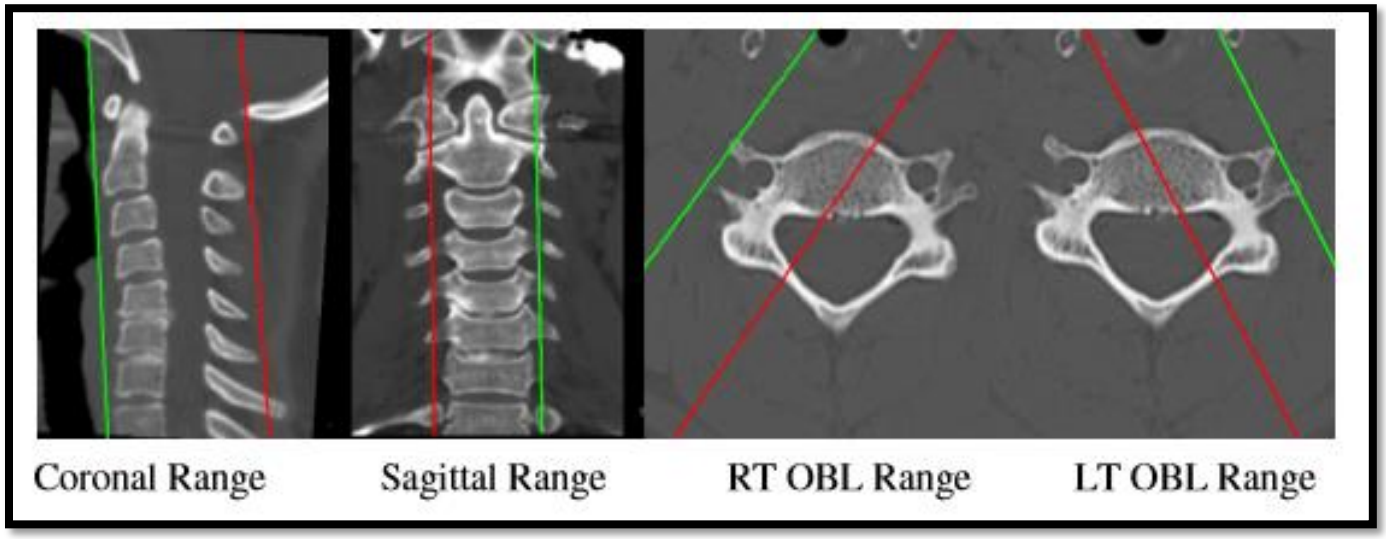
Back to Pedi Neuro Protocol Page

ARA DIAGNOSTIC IMAGING

PEDI CERVICAL-Revised-08/06/2025

SIEMENS PERSPECTIVE

Setup: 1. Supine, Lateral scout, no gantry angle
2. Scout from T3 through the Sella
3. Patient Positioning:
   - If no recent trauma, tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabletop
   - Do not flex or extend the neck if there has been recent spine trauma or if the patient is in a cervical collar.
   - Retract shoulders as much as possible.
4. Start scan just below T1 Through the entire cervical spine



PACS Series:
1. Cervical ST
2. Cervical Bone
3. 1x1 Sag Cervical Spine
4. 1x1 Coronal Cervical Spine
5. 1x1 RT Oblique (not needed for hospital patients)
6. 1x1 LT Oblique (not needed for hospital patients)

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

DIAGNOSTIC IMAGING

Acquisition Parameters

****15 and up use adult protocol**

Scan Type	Spiral
Pitch	1.2
Detector Configuration	32 x 0.6
Slice Thickness	1.0
Rotation Time	0.6
Care Dose	on
Quality Ref mAs	100
kVp	110
FOV	120

Reconstruction Parameters

Recon 1 Bone	
Kernel	B70s Very Sharp
SAFIRE	none
Window	Baby Spine
Slice Thickness	1.0 x 1.0
Recon 2 Axial ST	
Kernel	I41f Medium
SAFIRE	2
Window	Baby Spine
Slice Thickness	1.0 x 1.0
Recon 3 Coronal	
Kernel	I50f Medium Sharp ASA
SAFIRE	None
Window	Cranial Bone
Slice Thickness	1.0 x 1.0

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Recon 4 Sagittal	
Kernel	I50f Medium Sharp ASA
SAFIRE	None
Window	Cranial bone
Slice Thickness	1.0 x 1.0
Recon 5 RT Oblique	
Kernel	I50f Medium Sharp ASA
SAFIRE	none
Window	Cranial bone
Slice Thickness	1.0 x 1.0
Recon 6 LT Oblique	
Kernel	I50f Medium Sharp ASA
SAFIRE	0
Window	Cranial bone
Slice Thickness	1.0 x 1.0

Back to Pedi Neuro Protocol Page

PEDI FACIAL BONES/ORBITS-Revised-08/06/2025

SIEMENS PERSPECTIVE

Setup: Lateral scout from below the mandible through the frontal sinuses

Position: Supine

DFOV: Appropriate for patients body habitus

Scan Parameters:
Patient is scanned helical in the supine position through the entire area of concern
BB marker placed on patient's right cheek

PACS Series:

- Topogram
- Axial ST
- Axial Bone
- Coronal ST
- Coronal Bone
- Sagittal ST
- Sagittal Bone
- Patient Protocol/Dose Report

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

DIAGNOSTIC IMAGING

Acquisition Parameters**15 and up use adult protocol

Scan Type	Spiral
Pitch	1.0
Detector Configuration	32 x 0.6
Slice Thickness	1.5
Rotation Time	0.6
Care Dose	on
Quality Ref mAs	35
kVp	110
FOV	150

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	J37f Medium Smooth
SAFIRE	2
Window	Sinuses
Slice Thickness	1.5 x 1.5
Recon 2 Axial Bone	
Kernel	H60f Sharp FR
SAFIRE	none
Window	Inner Ear
Slice Thickness	1.5 x 1.5
Recon 3 Coronal ST	
Kernel	J37f Medium Smooth

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

SAFIRE	2
Window	Sinuses
Slice Thickness	1.5 x 1.5
Recon 4 Coronal Bone	
Kernel	H60f Sharp FR
SAFIRE	none
Window	Inner Ear
Slice Thickness	1.5 x 1.5
Recon 5 Sagittal ST	
Kernel	J37f Medium Smooth
SAFIRE	2
Window	Sinuses
Slice Thickness	1.5 x 1.5
Recon 6 Sagittal Bone	
Kernel	H60f Sharp FR
SAFIRE	None
Window	Inner Ear
Slice Thickness	1.5 x 1.5

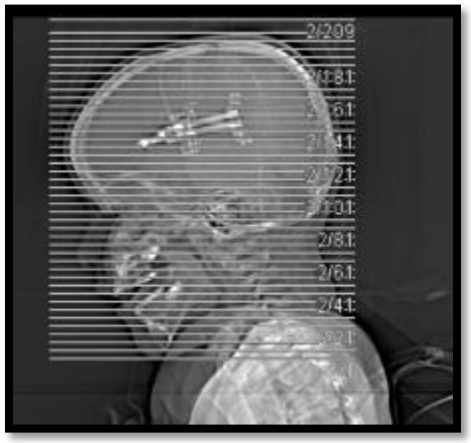
Back to Pedi Neuro Protocol Page

PEDI LOW DOSE CRANIOFACIAL-Revised-08/06/2025

SIEMENS PERSPECTIVE

This is to be performed on all pediatric patients under the age of 14

Setup: Lateral scout from below the mandible through the top of the skull
Scan Range: From below the mandible through the top of the skull
DFOV: Appropriate for patients body habitus



PACS Series:

- Topogram
- 1x1 Axial ST
- 1x1 Axial Bone
- 3x3 Oblique Axial ST (Brain)
- 1x1 Bone Coronals
- 1x1 Bone Sagittal
- VRT Rotation
- VRT Tumble
- Patient Protocol/Dose Report

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Scan Type	Spiral
Pitch	1.0
Detector Configuration	32 x 0.6
Slice Thickness	1.0
Rotation Time	0.6
Care Dose	on
Quality Ref mAs	30
kVp	110
FOV	220

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	J37f Medium Smooth
SAFIRE	2
Window	Cerebrum
Slice Thickness	1.0 x 1.0
Recon 2 Axial Bone	
Kernel	H60f Sharp FR
SAFIRE	none
Window	Cranial Bone
Slice Thickness	1.0 x 1.0
Recon 3 Coronal Bone	
Kernel	H60f Sharp FR
SAFIRE	none
Window	Coronal Bone

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Slice Thickness	1.0 x 1.0
Recon 4 Sagittal Bone	
Kernel	H60f Sharp FR
SAFIRE	none
Window	Cranial Bone
Slice Thickness	1.0 x 1.0
Recon 5 Axial Oblique Brain	
Kernel	J30f Medium Smooth
SAFIRE	2
Window	Cerebrum
Slice Thickness	3.0 x 3.0
Recon 6 Reformat for 3D	
Kernel	J30f Medium Smooth
SAFIRE	3
Window	Cerebrum
Slice Thickness	0.6 x 0.3

Recon 4 Sagittal	
Kernel	I50s Medium Sharp
SAFIRE	3
Window	Lung
Slice Thickness	1.0 x 5.0
Recon 5 Reformat	
Kernel	I31s Medium Smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	2.0 x 1.0

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI COMPLETE SINUS-Revised-08/06/2025

SIEMENS PERSPECTIVE

Setup: Supine, Lateral/PA Scout, No gantry angle

Position: Supine with marker on the RT cheek

DFOV: Appropriate for patients body habitus

Scan Parameters:

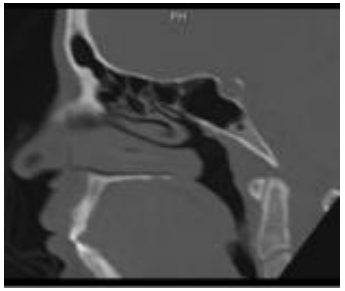
Patient is scanned helical in the supine position. 15cm DFOV Preferred

- Supine helical scan from below upper teeth through frontal sinus
- Only perform the bone reconstructions on the post contrast scan if the exam is performed without and with IV contrast

**For Sagittal Reconstruction the radiologists request to be parallel to hard palate- see image

PACS Series:

- Scout/Topogram
- 1x1 Axial Bone
- 1x1 Axial ST
- 1x1 Coronal Bone
- 1x1 Coronal ST
- 1x1 Sagittal Bone
- 1x1 Sagittal ST
- Patient Protocol/Dose Report



Back to Pedi Neuro Protocol Page

***15 and up use adult protocol

Scanner	Perspective	D
Scan Type	spiral	
Detector Configuration	32 x 0.6	
Rotation Time (sec)	0.6	
Pitch	0.8	
Scan FOV	Large	
CareDose4D	on	
Quality ref mAs	35	
kVp	110	
ref kVp		
Optimize Slider position		
Optimize Slider position		
Axial ST		
Kernel	J30s	
Window	cerebrum	
SAFIRE/ADMIRE	2	
Slice Thickness (mm)	1	
Slice Increment (mm)	1	
Axial Bone		
Kernel	J80s verysharp	
Window	Cranial bone	
SAFIRE/ADMIRE	2	
Slice Thickness (mm)	1	
Slice Increment (mm)	1	
Cor/Sag ST		
Kernel	J30s	
Window	cerebrum	
SAFIRE/ADMIRE	2	
Slice Thickness (mm)	1	
Slice Increment (mm)	1	
Cor/Sag Bone		
Kernel	J80s verysharp	
Window	Cranial bone	
SAFIRE/ADMIRE	2	
Slice Thickness (mm)	1	
Slice Increment (mm)	1	

Back to Pedi Neuro Protocol Page

Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality

PEDI SINUS IMAGE GUIDED (IGS)/MEDTRONIC-STRYKER - Revised-08/06/2025

CTDI: ~10-20 mGy

Place skin marker on the patient's right cheek prior to scanning

Setup:

- Head first supine , lateral scout from below the mandible through the top of the skull,
  - **Only use the flat sponge**

Scan Parameters:

- For **IGS Sinuses the Scan range** should begin below the teeth and extend through the entire frontal sinuses
- For **Medtronic and Stryker Sinuses Scan range** should begin below the teeth and extend through the top of the skull
- DFOV
  - 25-30 cm DFOV is used for the CD Data set. Include the entire nose and ears
  - 15 cm DFOV is used for all other series

No piercings allowed due to surgical computer/robot limitations in reading images if metal is present

****SHIELD PT WITH APRON****

PACS Series:

Topogram

- CD Data Set
  - 1x1 Axial Soft Tissue 25cm DFOV
- 1 x 1 Axial Bone 15cm DFOV
- 1 x 1 Coronal Bone 15cm DFOV
- 1 x 1 Sagittal Bone 15cm DFOV
- 1 x 1 Axial ST 15cm DFOV
- 1 x 1 Coronal ST 15cm DFOV
- 1 x 1 Sagittal ST 15cm DFOV
- Patient Protocol/Dose Report

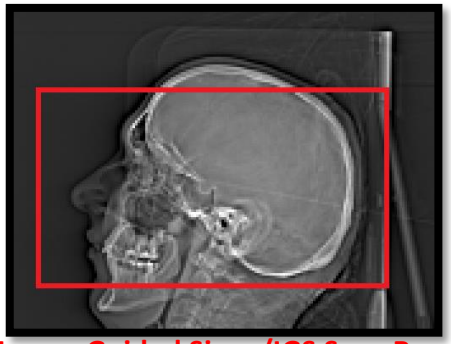
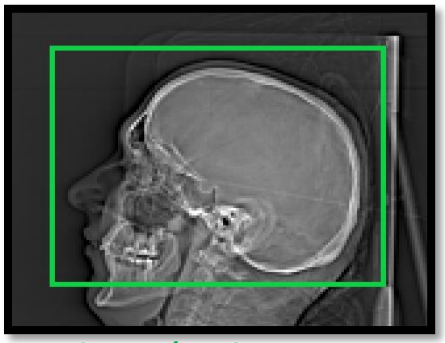


Image Guided Sinus/IGS Scan Range



Medtronic/Stryker Scan range

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Scanner	Perspective
Scan Type	spiral
Detector Configuration	32 x 0.6
Rotation Time (sec)	0.6
Pitch	0.8
Scan FOV	Large
CareDose4D	on
Quality ref mAs	35
kVp	110
ref kVp	
Optimize Slider position	
Optimize Slider position	
CD Data Set	
Kernel	J30s
Window	cerebrum
SAFIRE/ADMIRE	2
Slice Thickness (mm)	1
Slice Increment (mm)	1
Axial Bone	
Kernel	J80s verysharp
Window	Cranial bone
SAFIRE/ADMIRE	2
Slice Thickness (mm)	1
Slice Increment (mm)	1
Cor/Sag ST	
Kernel	J30s
Window	cerebrum
SAFIRE/ADMIRE	2
Slice Thickness (mm)	1
Slice Increment (mm)	1
Cor/Sag Bone	
Kernel	J80s verysharp
Window	Cranial bone
SAFIRE/ADMIRE	2
Slice Thickness (mm)	1
Slice Increment (mm)	1

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI LUMBAR-Revised-08/06/2025

SIEMENS PERSPECTIVE

CTDIvol: ~5-10 mGy

Setup:

1. Supine, AP and Lateral scouts, no gantry angle
2. Extend scout from S2 through T12
3. Patient Positioning:
    - Post Myelography patients must be rolled 360 degrees before scanning; this will help to evenly distribute spinal contrast.
4. Start scan just below S2 through T12
5. Contrast at the discretion of the Radiologist

For Patients with extensive hardware: Use 130 kVp and perform the soft tissue reconstruction with the smoothest possible Kernel/Algorithm possible, and the Bone reformat reconstruction with a standard Kernel/Algorithm: this technique will help to reduce streaking artifact.
(If you are unsure if the amount of implanted hardware is considered extensive please consult with a Radiologist)

PACS Series:

- Lumbar ST
- Lumbar Bone
- Sag Lumbar Spine
- Coronal Lumbar Spine
- Axial Oblique 1
- Patient Protocol/Dose Report

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Soft Tissue Axial	
Kernel	I41s
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Bone Axial	
Algorithm/ Kernel	B70
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Coronal	
Kernel	B50
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Sagittal	
Algorithm/ Kernel	B50
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Obl Axial	
Kernel	I41s
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5

Back to Pedi Neuro Protocol Page

PEDI ST NECK-Revised-08/06/2025

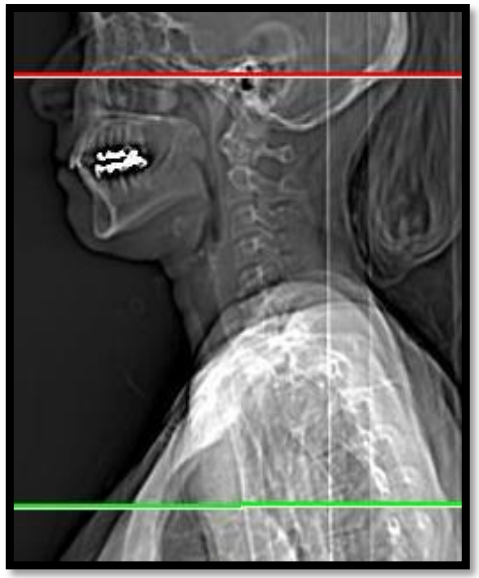
SIEMENS PERSPECTIVE

CTDI: ~15-20mGy

- When performing CT Soft Tissue Neck scans on pediatric patients please avoid scanning the orbits unless the anatomy is of concern for the examination. If you are unsure as to include the orbits or not, please seek the advice of a radiologist

Setup:

1. Supine lateral scout
2. Scout should extend through the aortic arch
3. Start scan just below the orbits and scan through the aortic arch
4. DFOV Appropriate for patients body habitus



Scan Parameters:

IV Contrast administered according to chart at the discretion of the Radiologist

Set injection Rate on Power injector based on patient's weight		
<16kg/<35lbs	1ml per lb @1.5 ml/ sec	34 sec delay
16-25kg/35-55lbs	40ml @ 1.5/sec	45 sec delay
26/34kg/55-75lbs	50ml @ 1.5 ml/sec	50 sec delay
>35kg/>76lbs	75ml @ 2.0 ml/sec	60 sec delay

PACS Series:

- Scout/Topogram
- 1.5 x 1.5 ST Neck
- 1.5 x 1.5 Bone
- 1.5 x 1.5 Coronal
- 1.5 x 1.5 Sagittal
- Dose Report/Protocol Page

Back to Pedi Neuro Protocol Page

Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality

ARA DIAGNOSTIC IMAGING

Soft Tissue Axial	
Kernel	I41s
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Bone Axial	
Algorithm/ Kernel	B70
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Coronal	
Kernel	B50
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Sagittal	
Algorithm/ Kernel	B50
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Obl Axial	
Kernel	I41s
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5

PEDI TEMPORAL BONES-Revised-08/06/2025

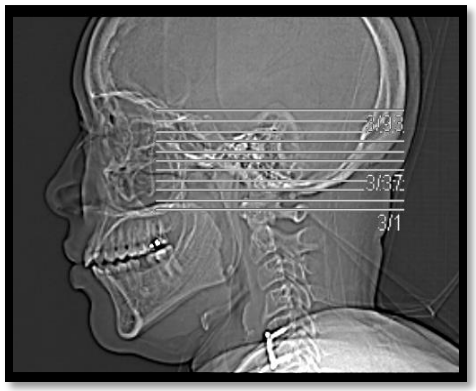
SIEMENS PERSPECTIVE

Setup:

1. Supine, AP and lateral scouts, no gantry angle
2. Patient Positioning: Tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabletop
3. Start scan just inferior to the skull base and scan through the entire IAC's

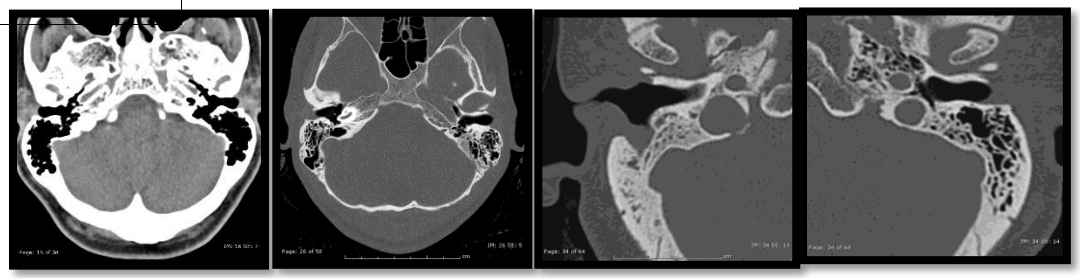
DFOV: Preferred 15cm (Range 14-20) *contrast at RAD discretion*

Scanner	Perspective 64	
Scan Type	Spiral	
Rotation Time (sec)	0.6	
Detector Configuration	4 x 0.6	
Pitch	1.0	
Age	0-14	15 and older use adult protocol
kVp	110	
Quality ref mAs	90	
Care Dose 4D	Y	

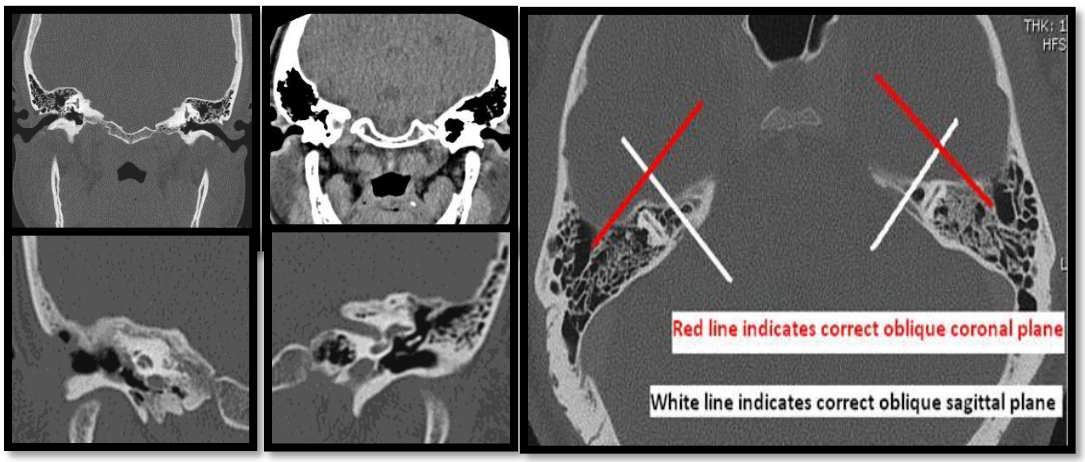


Series Order:

- Supine Topogram
- Axial ST
- Axial Bone
- RT Axial Bone
- LT Axial Bone



- Coronal Bone
- Coronal ST
- RT Coronal Bone
- LT Coronal Bone
-
- RT Obl Coronal
- RT Obl Sag
- LT Obl Coronal
- LT Obl Sag



**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Soft Tissue Axial	
Algorithm/ Kernel	J37s
SAFIRE	2
Slice thickness (mm)	0.6
Slice Increment (mm)	0.6
Bone Axial	
Algorithm/ Kernel	U90
SAFIRE	2
Slice thickness (mm)	0.6
Slice Increment (mm)	0.6
RT Axial Bone 10cm DFOV	
Algorithm/ Kernel	U90
SAFIRE	2
Slice thickness (mm)	0.6
Slice Increment (mm)	0.6
LT Axial Bone 10cm DFOV	
Algorithm/ Kernel	U90
SAFIRE	2
Slice thickness (mm)	0.6
Slice Increment (mm)	0.6
RT Axial Bone Reformat 10cm DFOV	
Algorithm/ Kernel	U90
SAFIRE	2
Slice thickness (mm)	0.6
Slice Increment (mm)	0.3
LT Axial Bone Reformat 10cm DFOV	
Algorithm/ Kernel	U90
SAFIRE	2
Slice thickness (mm)	0.6
Slice Increment (mm)	0.3

Back to Pedi Neuro Protocol Page

PEDI THORACIC SPINE-Revised-08/06/2025

SIEMENS PERSPECTIVE

Setup:

In order to evenly distribute spinal contrast, post myelography patients must be rolled 360 degrees before scanning

- Supine patient position
  a. AP scout from S2 through C7
  b. Lateral scout from S2 through C7
- Bismuth shield used after scout
- Scan from below L1 through C7

PACS Series:

- Scout/Topogram
- 1.5 x 1.5 Axial Soft Tissue
- 1.5 x 1.5 Axial Bone
- 1.5 x 1.5 Sagittal
- 1.5 x 1.5 Coronal
- Dose Report/ Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Soft Tissue Axial	
Kernel	I41s
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Bone Axial	
Algorithm/ Kernel	B70
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Coronal	
Kernel	B50
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Sagittal	
Algorithm/ Kernel	B50
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Obl Axial	
Kernel	I41s
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5

Back to Pedi Neuro Protocol Page

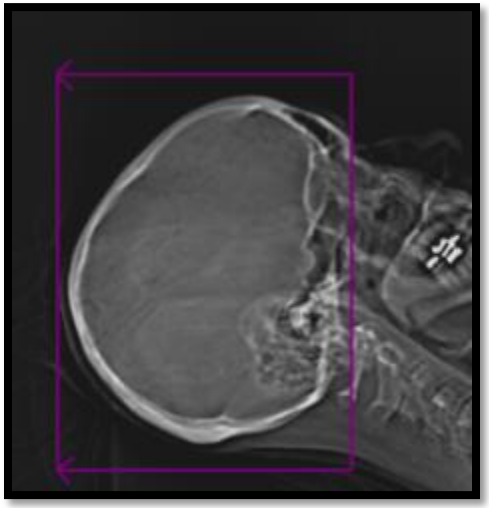
PEDIATRIC BRAIN-Revised-08/06/2025

SIEMENS DEFINITION 64

Setup:

1. Supine lateral scout
2. Patient Positioning: Tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the tabletop.
3. In order to reduce radiation exposure to the lens of the eye, angle the gantry if you cannot place the patient's head within 15 degrees of the proper setup angle
4. Start scan at the bottom of the skull base and scan through the top of the head

DFOV: Appropriate for body habitus (Range 15-22)



PACS Series:

- Scout/Topogram
- Brain S
- Bone
- Bone Coronals (Only performed on 0-6yrs)
- ST Coronals for trauma less than 30 days
- Dose Report/Protocol Page

Set Injection Rate on Power injector based on patient's weight in Kilograms	
<16 kg/<35LBS	20ml @ 1.5 ml/sec
16-25 kg/35-55LBS	40ml @ 1.5 ml/ sec
26-34kg/56-75LBS	60ml @ 1.5 ml/sec
>35kg/>76LBS	80ml @ 2.0 ml/sec

***** 5 Minute Delay*****

St. David's Facilities for contrast protocol please refer to St.David's Health Care- Imaging Medication Dose Protocol

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Acquisition Parameters

Pedi 0-6 years

Scan Type	Spiral
Pitch	0.8
Detector Configuration	64 x 0.6
Slice Thickness	3.0
Rotation Time	1.0
Care Dose	on
Quality Ref mAs	190
kVp	120

Pedi 7-14 years

Scan Type	Spiral
Pitch	0.55
Detector Configuration	64 x 0.6
Slice Thickness	3.0
Rotation Time	1.0
Care Dose	on
Quality Ref mAs	225
kVp	120

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	J40s Medium
SAFIRE	2
Window	Cerebrum
Slice Thickness	3.0 x 3.0
Recon 2 Bone	
Kernel	H70h Very Sharp
SAFIRE	0
Window	Cranial Bone
Slice Thickness	3.0 x 3.0

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Recon 3 Coronal Bone	****Coronal Bone on pedi 0-6 years only**
Kernel	H70h Very Sharp
SAFIRE	0
Window	Cranial Bone
Slice Thickness	3.0 x 3.0
Recon 3 Coronal ST	****Coronal ST on trauma <30days**
Kernel	J40s Medium
SAFIRE	2
Window	Cerebrum
Slice Thickness	3.0 x 3.0

Back to Pedi Neuro Protocol Page

PEDI CAROTIDS-Revised-08/06/2025

SIEMENS DEFINITION 64

1. Supine, Lateral scout, no gantry angle
2. Scout should extend through the aortic arch for smart prep/bolus tracking
3. Patient Positioning:
    - Tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabl etop
    - Retract shoulders as much as possible.
4. Scan from the bottom half of the orbits through the level of the arch (Includes great vessel origins and most of the arch)

DFOV: Preferred 15 cm

Scan Parameters:

1. Contrast:
    - At the discretion of the Radiologist

      Rate of IV -SEE IV GUIDELINES
      Type of IV contrast used: 350 mg/ml
      Volume of Contrast is based on the patient's weight
      A good rule of thumb is to use ~1 ml/lb. up to 75ml
2. Smart Prep/Bolus Tracking – start scanning upon entry of contrast at the level of the aortic arch or trigger at 60 HU

PACS Series:

- ST Axial
- Coronal MIP
- Sagittal MIP
- RT Carotid CPR
- LT Carotid CPR
- RT Vertebral CPR
- LT Vertebral CPR
- 3D VRT
- Patient Protocol/ Dose Report

Back to Pedi Neuro Protocol Page

DIAGNOSTIC IMAGING

Acquisition Parameters **15 and up use adult protocol

Scan Type	Spiral
Pitch	1.0
Detector Configuration	64 x 0.6
Slice Thickness	1.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	40
kVp should be set based on patient weight	
kVp	<20 lbs 80 >20 lbs 110
FOV	150
Trigger	60

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	CT Angio
Slice Thickness	1.0 x 1.0
Recon 2 Reformat for 3D	
Kernel	I26f Medium Smooth ASA
SAFIRE	2
Window	CT Angio
Slice Thickness	0.6 x 0.4

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

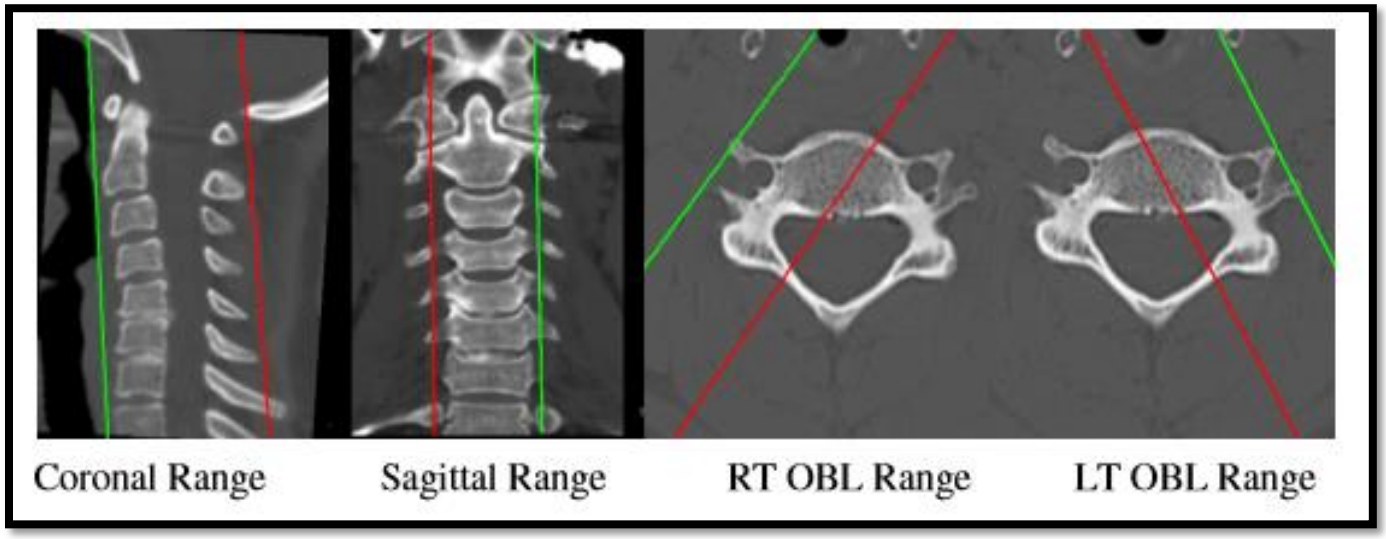
Recon 3 Coronal MIP	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	CT Angio
Slice Thickness	1.0 x 1.0
Recon 4 Sagittal MIP	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	CT Angio
Slice Thickness	1.0 x 1.0

Back to Pedi Neuro Protocol Page

PEDI CERVICAL-Revised-08/06/2025

SIEMENS DEFINITION 64

Setup: 1. Supine, Lateral scout, no gantry angle
2. Scout from T3 through the Sella
3. Patient Positioning:
   - If no recent trauma, tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabletop
   - Do not flex or extend the neck if there has been recent spine trauma or if the patient is in a cervical collar.
   - Retract shoulders as much as possible.
4. Start scan just below T1 Through the entire cervical spine



PACS Series:
1. Cervical ST
2. Cervical Bone
3. 1x1 Sag Cervical Spine
4. 1x1 Coronal Cervical Spine
5. 1x1 RT Oblique (not needed for hospital patients)
6. 1x1 LT Oblique (not needed for hospital patients)

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

DIAGNOSTIC IMAGING

Acquisition Parameters

****15 and up use adult protocol**

Scan Type	Spiral
Pitch	1.2
Detector Configuration	64 x 0.6
Slice Thickness	1.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	100
kVp	110
FOV	120

Reconstruction Parameters

Recon 1 Bone	
Kernel	B70f Very Sharp
SAFIRE	0
Window	Osteo
Slice Thickness	1.0 x 1.0
Recon 2 Axial ST	
Kernel	I40f Medium
SAFIRE	2
Window	Spine
Slice Thickness	1.0 x 1.0
Recon 3 Coronal	
Kernel	I50f Medium Sharp ASA
SAFIRE	1
Window	Osteo
Slice Thickness	1.0 x 1.0

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Recon 4 Sagittal	
Kernel	I50f Medium Sharp ASA
SAFIRE	1
Window	Osteo
Slice Thickness	1.0 x 1.0
Recon 5 RT Oblique	
Kernel	I50f Medium Sharp ASA
SAFIRE	1
Window	Osteo
Slice Thickness	1.0 x 1.0
Recon 6 LT Oblique	
Kernel	I50f Medium Sharp ASA
SAFIRE	1
Window	Osteo
Slice Thickness	1.0 x 1.0

Back to Pedi Neuro Protocol Page

PEDI FACIAL BONES/ORBITS-Revised-

SIEMENS DEFINITION 64

Setup: Lateral scout from below the mandible through the frontal sinuses

Position: Supine

DFOV: Appropriate for patients body habitus

Scan Parameters:
Patient is scanned helical in the supine position through the entire area of concern
BB marker placed on patient's right cheek

PACS Series:

- Topogram
- Axial ST
- Axial Bone
- Coronal ST
- Coronal Bone
- Sagittal ST
- Sagittal Bone
- Patient Protocol/Dose Report

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Acquisition Parameters**15 and up use adult protocol

Scan Type	Spiral
Pitch	1.0
Detector Configuration	64 x 0.6
Slice Thickness	1.5
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	35
kVp	110
FOV	150

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	J37f Medium Smooth
SAFIRE	2
Window	Sinuses
Slice Thickness	1.5 x 1.5
Recon 2 Axial Bone	
Kernel	H60f Sharp FR
SAFIRE	0
Window	Inner Ear
Slice Thickness	1.5 x 1.5
Recon 3 Coronal ST	
Kernel	J37f Medium Smooth

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

SAFIRE	2
Window	Sinuses
Slice Thickness	1.5 x 1.5
Recon 4 Coronal Bone	
Kernel	H60f Sharp FR
SAFIRE	0
Window	Inner Ear
Slice Thickness	1.5 x 1.5
Recon 5 Sagittal ST	
Kernel	J37f Medium Smooth
SAFIRE	2
Window	Sinuses
Slice Thickness	1.5 x 1.5
Recon 6 Sagittal Bone	
Kernel	H60f Sharp FR
SAFIRE	0
Window	Inner Ear
Slice Thickness	1.5 x 1.5

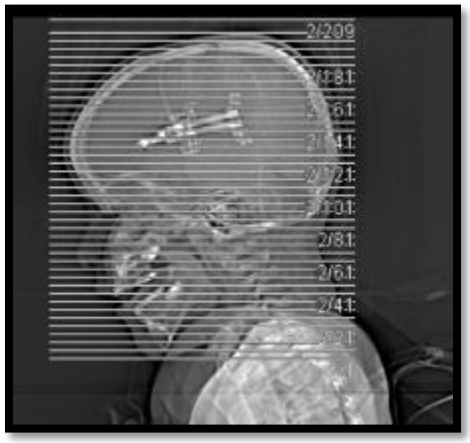
Back to Pedi Neuro Protocol Page

PEDI LOW DOSE CRANIOFACIAL-Revised-08/06/2025

SIEMENS DEFINITION 64

This is to be performed on all pediatric patients under the age of 14

Setup: Lateral scout from below the mandible through the top of the skull
Scan Range: From below the mandible through the top of the skull
DFOV: Appropriate for patients body habitus



PACS Series:

- Topogram
- 1x1 Axial ST
- 1x1 Axial Bone
- 3x3 Oblique Axial ST (Brain)
- 1x1 Bone Coronals
- 1x1 Bone Sagittal
- VRT Rotation
- VRT Tumble
- Patient Protocol/Dose Report

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Scan Type	Spiral
Pitch	1.0
Detector Configuration	64 x 0.6
Slice Thickness	1.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	30
kVp	120
FOV	200

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	J37f Medium Smooth
SAFIRE	2
Window	Cerebrum
Slice Thickness	1.0 x 1.0
Recon 2 Axial Bone	
Kernel	H60f Sharp FR
SAFIRE	0
Window	Cranial Bone
Slice Thickness	1.0 x 1.0
Recon 3 Coronal Bone	
Kernel	H60f Sharp FR
SAFIRE	0
Window	Coronal Bone

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Slice Thickness	1.0 x 1.0
Recon 4 Sagittal Bone	
Kernel	H60f Sharp FR
SAFIRE	0
Window	Cranial Bone
Slice Thickness	1.0 x 1.0
Recon 5 Axial Oblique Brain	
Kernel	J30f Medium Smooth
SAFIRE	2
Window	Cerebrum
Slice Thickness	3.0 x 3.0
Recon 6 Reformat for 3D	
Kernel	J30f Medium Smooth
SAFIRE	3
Window	Cerebrum
Slice Thickness	0.6 x 0.3

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI COMPLETE SINUS-Revised-08/06/2025

SIEMENS DEFINITION 64

Setup: Supine, Lateral/PA Scout, No gantry angle

Position: Supine with marker on the RT cheek

DFOV: Appropriate for patients body habitus

Scan Parameters:

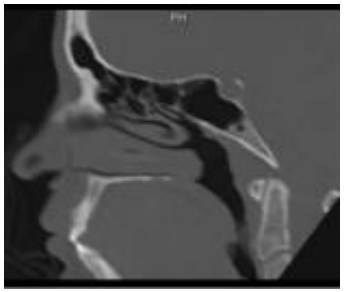
Patient is scanned helical in the supine position. 15cm DFOV Preferred

- Supine helical scan from below upper teeth through frontal sinus
- Only perform the bone reconstructions on the post contrast scan if the exam is performed without and with IV contrast

**For Sagittal Reconstruction the radiologists request to be parallel to hard palate- see image

PACS Series:

- Scout/Topogram
- 1x1 Axial Bone
- 1x1 Axial ST
- 1x1 Coronal Bone
- 1x1 Coronal ST
- 1x1 Sagittal Bone
- 1x1 Sagittal ST
- Patient Protocol/Dose Report



Back to Pedi Neuro Protocol Page

ARA DIAGNOSTIC IMAGING

Pedi 7-14 years **15+ use adult protocol**

Scan Type	Spiral
Pitch	1.0
Detector Configuration	64 x 0.6
Slice Thickness	1.0
Rotation Time	1.0
Care Dose	on
Quality Ref mAs	35
kVp	130
FOV	150

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	H37s Medium Smooth
SAFIRE	0
Window	Sinuses
Slice Thickness	1.0 x 1.0
Recon 2 Bone	
Kernel	H70h Very Sharp
SAFIRE	0
Window	Inner Ear
Slice Thickness	1.0 x 1.0

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI SINUS IMAGE GUIDED (IGS)/MEDTRONIC-STRYKER - Revised-08/06/2025

CTDI: ~10-20 mGy

Place skin marker on the patient's right cheek prior to scanning

Setup:

- Head first supine , lateral scout from below the mandible through the top of the skull,
  - **Only use the flat sponge**

Scan Parameters:

- For **IGS Sinuses the Scan range** should begin below the teeth and extend through the entire frontal sinuses
- For **Medtronic and Stryker Sinuses Scan range** should begin below the teeth and extend through the top of the skull
- DFOV
  - 25-30 cm DFOV is used for the CD Data set. Include the entire nose and ears
  - 15 cm DFOV is used for all other series

No piercings allowed due to surgical computer/robot limitations in reading images if metal is present

PACS Series:

Topogram

- CD Data Set
  - 1x1 Axial Soft Tissue 25cm DFOV
- 1 x 1 Axial Bone 15cm DFOV
- 1 x 1 Coronal Bone 15cm DFOV
- 1 x 1 Sagittal Bone 15cm DFOV
- 1 x 1 Axial ST 15cm DFOV
- 1 x 1 Coronal ST 15cm DFOV
- 1 x 1 Sagittal ST 15cm DFOV
- Patient Protocol/Dose Report

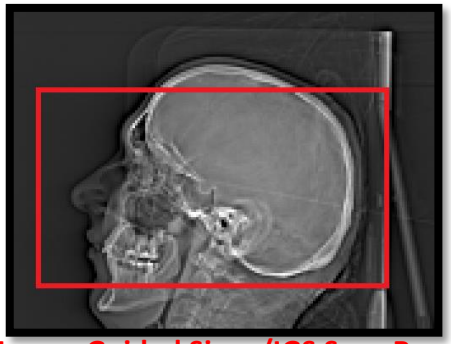
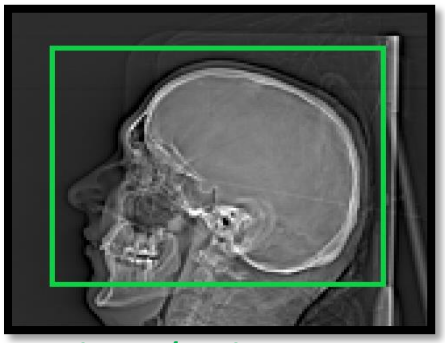


Image Guided Sinus/IGS Scan Range



Medtronic/Stryker Scan range

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Pedi 7-14 years **15+ use adult protocol**

Scan Type	Spiral
Pitch	1.0
Detector Configuration	64 x 0.6
Slice Thickness	1.0
Rotation Time	1.0
Care Dose	on
Quality Ref mAs	35
kVp	130
FOV	150

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	H37s Medium Smooth
SAFIRE	0
Window	Sinuses
Slice Thickness	1.0 x 1.0
Recon 2 Bone	
Kernel	H70h Very Sharp
SAFIRE	0
Window	Inner Ear
Slice Thickness	1.0 x 1.0

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI LUMBAR-Revised-08/06/2025

SIEMENS DEFINITION 64

CTDIvol: ~5-10 mGy

Setup:

1. Supine, AP and Lateral scouts, no gantry angle
2. Extend scout from S2 through T12
3. Patient Positioning:
    - Post Myelography patients must be rolled 360 degrees before scanning; this will help to evenly distribute spinal contrast.
4. Start scan just below S2 through T12
5. Contrast at the discretion of the Radiologist

For Patients with extensive hardware: Use 130 kVp and perform the soft tissue reconstruction with the smoothest possible Kernel/Algorithm possible, and the Bone reformat reconstruction with a standard Kernel/Algorithm: this technique will help to reduce streaking artifact.
(If you are unsure if the amount of implanted hardware is considered extensive please consult with a Radiologist)

PACS Series:

- Lumbar ST
- Lumbar Bone
- Sag Lumbar Spine
- Coronal Lumbar Spine
- Axial Oblique 1
- Patient Protocol/Dose Report

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Scan Type	Spiral
Pitch	1.0
Detector Configuration	16 x 1.2
Slice Thickness	1.5
Rotation Time	1.0
Care Dose	on
Quality Ref mAs	35
kVp	120

Soft Tissue Axial	
Kernel	I40s Medium
SAFIRE	0
Window	Spine
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Bone Axial	
Algorithm/ Kernel	B70s Very Sharp
SAFIRE	0
Window	Osteo
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Coronal	
Kernel	I50s Medium Smooth
SAFIRE	1
Window	Osteo
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Sagittal	
Kernel	I50s Medium Smooth
SAFIRE	1
Window	Osteo
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Obl Axial	
Kernel	I50s Medium Smooth
SAFIRE	1
Window	Osteo
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI ST NECK-Revised-08/06/2025

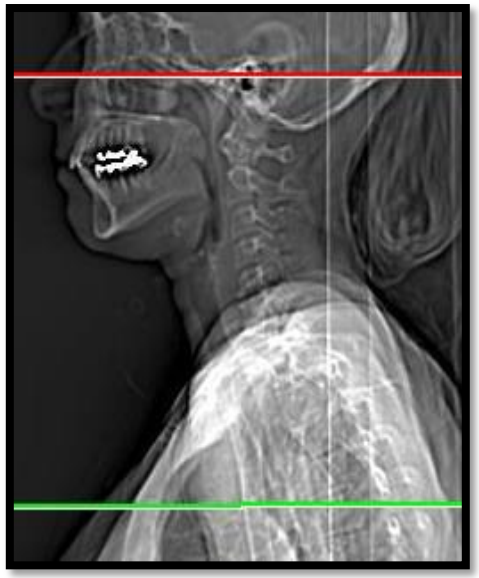
SIEMENS DEFINITION 64

CTDI: ~15-20mGy

- When performing CT Soft Tissue Neck scans on pediatric patients please avoid scanning the orbits unless the anatomy is of concern for the examination. If you are unsure as to include the orbits or not, please seek the advice of a radiologist

Setup:

5. Supine lateral scout
6. Scout should extend through the aortic arch
7. Start scan just below the orbits and scan through the aortic arch
8. DFOV Appropriate for patients body habitus



Scan Parameters:

IV Contrast administered according to chart at the discretion of the Radiologist

Set injection Rate on Power injector based on patient's weight		
<16kg/<35lbs	1ml per lb @1.5 ml/ sec	34 sec delay
16-25kg/35-55lbs	40ml @ 1.5/sec	45 sec delay
26/34kg/55-75lbs	50ml @ 1.5 ml/sec	50 sec delay
>35kg/>76lbs	75ml @ 2.0 ml/sec	60 sec delay

PACS Series:

- Scout/Topogram
- 1.5 x 1.5 ST Neck
- 1.5 x 1.5 Bone
- 1.5 x 1.5 Coronal
- 1.5 x 1.5 Sagittal
- Dose Report/Protocol Page

Back to Pedi Neuro Protocol Page

Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality

Scan Type	Spiral
Pitch	1.0
Detector Configuration	16 x 1.2
Slice Thickness	1.5
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	35
kVp	100

Soft Tissue Axial	
Kernel	I31f Medium Smooth
SAFIRE	2
Window	Mediastinum
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Bone Axial	
Algorithm/ Kernel	B70f Very Sharp
SAFIRE	0
Window	Bone
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Coronal	
Kernel	I31f Medium Smooth
SAFIRE	1
Window	Mediastinum
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Sagittal	
Kernel	I31f Medium Smooth
SAFIRE	1
Window	Mediastinum
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5

Back to Pedi Neuro Protocol Page

PEDI TEMPORAL BONES-Revised-08/06/2025

SIEMENS DEFINITION 64

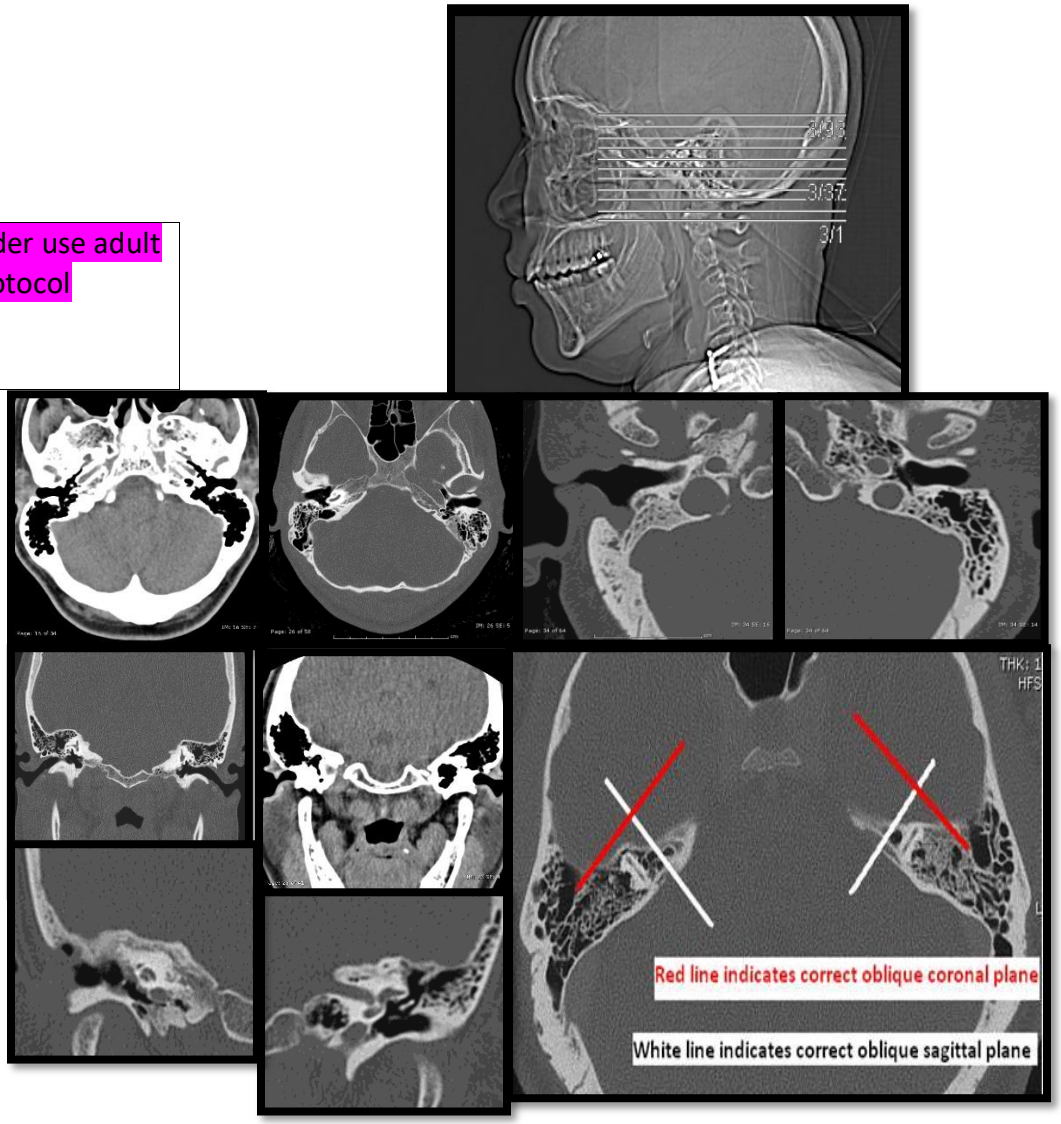
Setup:

4. Supine, AP and lateral scouts, no gantry angle
5. Patient Positioning: Tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabletop
6. Start scan just inferior to the skull base and scan through the entire IAC's

DFOV: Preferred 15cm (Range 14-20) *contrast at RAD discretion*

Scanner	Perspective 64
Scan Type	Spiral
Rotation Time (sec)	1.0
Detector Configuration	16 x 0.6
Pitch	1.0
Age	0-14
kVp	120
Quality ref mAs	90
Care Dose 4D	Y

15 and older use adult protocol



Series Order:

- Supine Topogram
- Axial ST
- Axial Bone
- RT Axial Bone
- LT Axial Bone

- Coronal Bone
- Coronal ST
- RT Coronal Bone
- LT Coronal Bone
- RT Obl Coronal
- RT Obl Sag
- LT Obl Coronal
- LT Obl Sag

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Soft Tissue Axial	
Kernel	U30u Medium Smooth
SAFIRE	0
Window	Sinus
Slice thickness (mm)	0.6
Slice Increment (mm)	0.6
Bone Axial	
Algorithm/ Kernel	V80u Very Sharp
SAFIRE	2
Window	Inner Ear
Slice thickness (mm)	0.6
Slice Increment (mm)	0.6
RT Axial Bone 10cm DFOV	
Kernel	V80u Very Sharp
SAFIRE	2
Window	Inner Ear
Slice thickness (mm)	0.6
Slice Increment (mm)	0.6
LT Axial Bone 10cm DFOV	
Kernel	V80u Very Sharp
SAFIRE	2
Window	Inner Ear
Slice thickness (mm)	0.6
Slice Increment (mm)	0.6
Reformat Set	
Kernel	V80u Very Sharp
SAFIRE	2
Window	Inner Ear
Slice thickness (mm)	0.6
Slice Increment (mm)	0.3

Back to Pedi Neuro Protocol Page

PEDI THORACIC SPINE-Revised-08/06/2025

SIEMENS DEFINITION 64

Setup:

In order to evenly distribute spinal contrast, post myelography patients must be rolled 360 degrees before scanning

- Supine patient position
  a. AP scout from S2 through C7
  b. Lateral scout from S2 through C7
- Bismuth shield used after scout
- Scan from below L1 through C7

PACS Series:

- Scout/Topogram
- 1.5 x 1.5 Axial Soft Tissue
- 1.5 x 1.5 Axial Bone
- 1.5 x 1.5 Sagittal
- 1.5 x 1.5 Coronal
- Dose Report/ Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Scan Type	Spiral
Pitch	1.0
Detector Configuration	16 x 1.2
Slice Thickness	1.5
Rotation Time	1.0
Care Dose	on
Quality Ref mAs	35
kVp	120

Soft Tissue Axial	
Kernel	I40s Medium
SAFIRE	2
Window	Mediastinum
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Bone Axial	
Algorithm/ Kernel	B70s Very Sharp
SAFIRE	0
Window	Osteo
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Coronal	
Kernel	I50s Medium Sharp
SAFIRE	1
Window	Osteo
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Sagittal	
Kernel	I50s Medium Sharp
SAFIRE	1
Window	Osteo
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

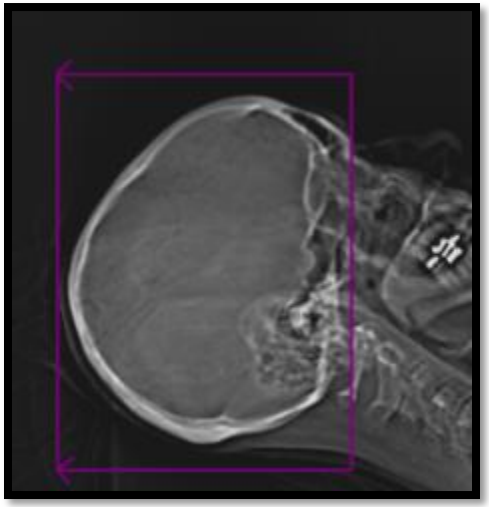
PEDIATRIC BRAIN-Revised-08/06/2025

GE OPTIMA

Setup:

1. Supine lateral scout
2. Patient Positioning: Tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the tabletop.
3. In order to reduce radiation exposure to the lens of the eye, angle the gantry if you cannot place the patient's head within 15 degrees of the proper setup angle
4. Start scan at the bottom of the skull base and scan through the top of the head

DFOV: Appropriate for body habitus (Range 15-22)



PACS Series:

- Scout/Topogram
- Brain S
- Bone
- Bone Coronals (Only performed on 0-6yrs)
- ST Coronals for trauma less than 30 days
- Dose Report/Protocol Page

Set Injection Rate on Power injector based on patient's weight in Kilograms	
<16 kg/<35LBS	20ml @ 1.5 ml/sec
16-25 kg/35-55LBS	40ml @ 1.5 ml/ sec
26-34kg/56-75LBS	60ml @ 1.5 ml/sec
>35kg/>76LBS	80ml @ 2.0 ml/sec

***** 5 Minute Delay*****

St. David's Facilities for contrast protocol please refer to St.David's Health Care- Imaging Medication Dose Protocol

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Protocol used for all pediatric patients ≤6 years of age

PACS Series:

- Topogram
- 2.5 x 2.5 Axial ST
- 1.25 x 1.25 Axial Bone
- 1.25 x 1.25 Soft Tissue Coronal
- 1.25 x 1.25 Soft Tissue Sagittal
- MIP Rotation of the Skull
- MIP Tumble of the Skull
- Patient Protocol/Dose Report

Acquisition Parameters

Head 0-6 YRS	
Scan Type	Helical
Scan FOV	Pedi Head
Noise Index	15
Auto mA	150-200
kVp	120
Rotation Time	1
Pitch and Speed	0.984:1 (39.36)
Detector Coverage	40 mm

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Reconstruction Parameters

Recon 1 Soft Tissue	
Algorithm	Standard
ASIR	40
Recon Type	Full
Slice thickness	2.5
Increment	2.5
Recon 2 Bone	
Algorithm	Bone
ASIR	none
Recon Type	Full
Slice thickness	2.5
Increment	2.5
Recon 3 (thins) used to create 1mm x 1mm Coronal bone	
Algorithm	Bone+
ASIR	10
Recon Type	Full
Slice thickness	1.25
Increment	0.625
Recon 4 (thins) used to create 1mm x 1mm Coronal Soft Tissue ***This data set is also used to create the MIP images of the skull**	
Algorithm	Standard
ASIR	40
Recon Type	Full
Slice thickness	0.625
Increment	0.625

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Acquisition Parameters

	Head 7-14 YRS	Head 14-18 YRS
Scan Type	Axial	Axial
Scan FOV	Head	Head
Noise Index		
Auto mA		
Manual mA	175	200
kVp	120	120
Rotation Time	1	1
Pitch and Speed		
Axial thickness and # of images per rotation	2.5 4i	2.5 2i
Detector Coverage	10 mm	5mm

Reconstruction Parameters

Recon 1 Soft Tissue	
Algorithm	Standard
ASIR	40
Recon Type	Full
Slice thickness	2.5
Increment	2.5
Recon 2 Bone	
Algorithm	Bone Plus
ASIR	none
Recon Type	Full
Slice thickness	2.5
Increment	2.5
Recon 3 (thins) for reformats **ST Coronals for trauma >30days**	
Algorithm	Standard
ASIR	30
Recon Type	Full
Slice thickness	1.25
Increment	1.25

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI CAROTIDS-Revised-08/06/202518

GE OPTIMA

Setup:

1. Supine, Lateral scout, no gantry angle
2. Scout should extend through the aortic arch for smart prep/bolus tracking
3. Patient Positioning:
    - Tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabl etop
    - Retract shoulders as much as possible.
4. Scan from the bottom half of the orbits through the level of the arch (Includes great vessel origins and most of the arch)

DFOV: Preferred 15 cm

Scan Parameters:

1. Contrast:
    - At the discretion of the Radiologist

      Rate of IV -SEE IV GUIDELINES
      Type of IV contrast used: 350 mg/ml
      Volume of Contrast is based on the patient's weight
      A good rule of thumb is to use ~1 ml/lb. up to 75ml
2. Smart Prep/Bolus Tracking – start scanning upon entry of contrast at the level of the aortic arch or trigger at 60 HU

PACS Series:

- ST Axial
- Coronal MIP
- Sagittal MIP
- RT Carotid CPR
- LT Carotid CPR
- RT Vertebral CPR
- LT Vertebral CPR
- 3D VRT
- Patient Protocol/ Dose Report

Back to Pedi Neuro Protocol Page

DIAGNOSTIC IMAGING

Acquisition Parameters

Scan Type	Helical
Pitch and Speed (mm/rot)	1.375:1 (27.5)
Detector Coverage	20 mm
Thick	1.25
Rotation Time	0.5
Noise index	15
Scan FOV	Small Body

PT body size	<20 lbs	20-49 lbs	50-89 lbs	>90 lbs
Smart mA Range	40-120	60-120	90-120	100-200
kVp	80	100	120	120

Reconstruction Parameters

Recon 1	
Algorithm	Standard
ASIR	none
Recon Type	Full
Slice Thickness	1.25
Increment	1.25
Recon 2 (thins) for Reformats	
Algorithm	Standard
ASIR	none
Recon Type	Plus
Slice Thickness	0.625
Increment	0.625

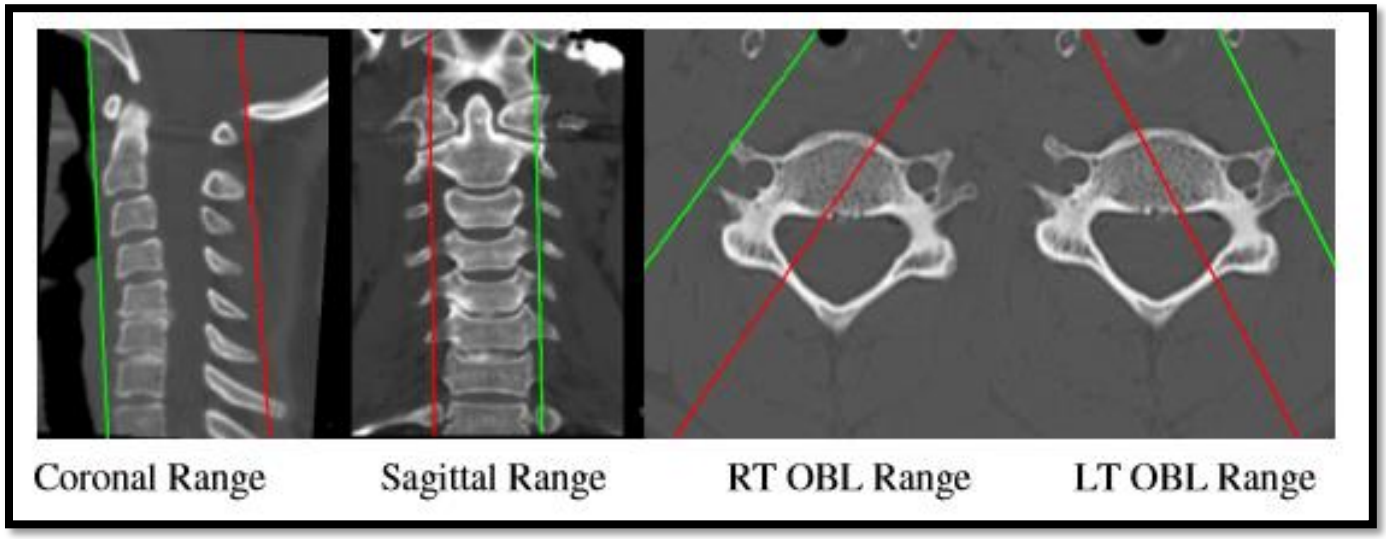
Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI CERVICAL-Revised-08/06/2025

GE OPTIMA

Setup: 1. Supine, Lateral scout, no gantry angle
2. Scout from T3 through the Sella
3. Patient Positioning:
   - If no recent trauma, tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabletop
   - Do not flex or extend the neck if there has been recent spine trauma or if the patient is in a cervical collar.
   - Retract shoulders as much as possible.
4. Start scan just below T1 Through the entire cervical spine



PACS Series:
1. Cervical ST
2. Cervical Bone
3. 1x1 Sag Cervical Spine
4. 1x1 Coronal Cervical Spine
5. 1x1 RT Oblique (not needed for hospital patients)
6. 1x1 LT Oblique (not needed for hospital patients)

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Acquisition Parameters**15 and up use adult protocol

Scan Type	Helical
Pitch and Speed (mm/rot)	0.969:1 (19.38)
Detector Coverage	20 mm
Thick	1.25
Rotation Time	0.5

PT body size	<20 lbs	20-49 lbs	50-89 lbs
Scan FOV	Small Body	Small Body	Small Body
Noise Index	13.4	15.4	17.4
Smart mA Range	50-300	50-400	50-400
kVp	100	100	120

Reconstruction Parameters

Recon 1 Bone	
Algorithm	Bone Plus
ASIR	none
Recon Type	Full
Slice Thickness	1.25
Increment	1.25
Recon 2 Soft Tissue	
Algorithm	Standard
ASIR	50
Recon Type	Full
Slice Thickness	1.25
Increment	1.25
Recon 3 (thins) for reformats	
Algorithm	Bone Plus
ASIR	40
Recon Type	Full
Slice Thickness	1.25
Increment	0.625

Back to Pedi Neuro Protocol Page

Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality

PEDI FACIAL BONES/ORBITS-Revised-08/06/2025

GE OPTIMA

Setup: Lateral scout from below the mandible through the frontal sinuses

Position: Supine

DFOV: Appropriate for patients body habitus

Scan Parameters:
Patient is scanned helical in the supine position through the entire area of concern
BB marker placed on patient's right cheek

PACS Series:

- Topogram
- Axial ST
- Axial Bone
- Coronal ST
- Coronal Bone
- Sagittal ST
- Sagittal Bone
- Patient Protocol/Dose Report

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Acquisition Parameters

****15 and up use adult protocol**

Scan Type	Helical
Pitch and Speed (mm/rot)	0.531:1 (10.62)
Detector Coverage	20 mm
Thick	1.25
Rotation Time	0.5
Noise index	25.46
Scan FOV	Head
kVp	100
Smart mA	On
Auto mA	On
mA Range	60-75
Dose Reduction	0%

Reconstruction Parameters

Recon 1 Soft Tissue	
Algorithm	Standard
ASIR	20
Recon Type	Full
Slice Thickness	1.25
Increment	1.25
Recon 2 Bone	
Algorithm	Bone Plus
ASIR	none
Recon Type	Full
Slice Thickness	1.25
Increment	1.25
Recon 3 (thins) for reformats	
Algorithm	Bone Plus
ASIR	None
Recon Type	Full
Slice Thickness	0.625
Increment	0.625
Recon 4 (thins) for reformats	
Algorithm	Standard
ASIR	20
Recon Type	Full-E
Slice Thickness	0.625
Increment	0.625

Back to Pedi Neuro Protocol Page

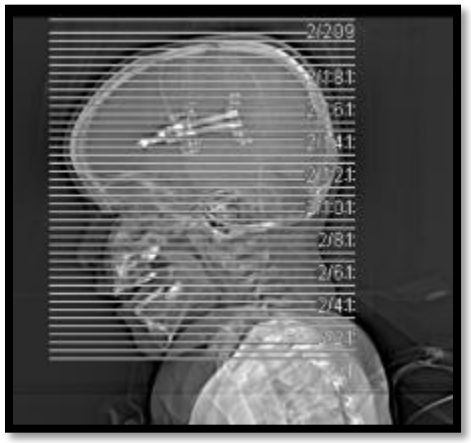
**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI LOW DOSE CRANIOFACIAL-Revised-08/06/2025

GE OPTIMA

This is to be performed on all pediatric patients under the age of 14

Setup: Lateral scout from below the mandible through the top of the skull
Scan Range: From below the mandible through the top of the skull
DFOV: Appropriate for patients body habitus
SHIELD PT WITH APRON



PACS Series:

- Topogram
- 1x1 Axial ST
- 1x1 Axial Bone
- 3x3 Oblique Axial ST (Brain)
- 1.25x1.25 Bone Coronals
- 1.25x1.25 Bone Sagittal
- VRT Rotation
- VRT Tumble
- Patient Protocol/Dose Report

Back to Pedi Neuro Protocol Page

ARA DIAGNOSTIC IMAGING

Acquisition Parameters CTDI 4.69

Scan Type	Helical
Pitch and Speed (mm/rot)	0.969:1 (19.37)
Detector Coverage	20 mm
Thick	1.25
Rotation Time	0.5
Noise index	N/A
Scan FOV	Head
kVp	100
Smart mA	off
Auto mA	off
Manual mA	80
Dose Reduction	0%

Reconstruction Parameters

Recon 1 Soft Tissue	
Algorithm	Standard
ASIR	20
Recon Type	Full
Slice Thickness	1.25
Increment	1.25
Recon 2 Bone	
Algorithm	Bone Plus
ASIR	none
Recon Type	Full
Slice Thickness	1.25
Increment	1.25
Recon 3 (thins) for 3D	
Algorithm	Standard
ASIR	20
Recon Type	Plus
Slice Thickness	0.625
Increment	0.625
Recon 4 (thins) for reformats	
Algorithm	Bone
ASIR	none
Recon Type	Plus
Slice Thickness	1.25
Increment	0.625

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI COMPLETE SINUS-Revised-08/06/2025

GE OPTIMA

Setup: Supine, Lateral/PA Scout, No gantry angle

Position: Supine with marker on the RT cheek

DFOV: Appropriate for patients body habitus

Scan Parameters:

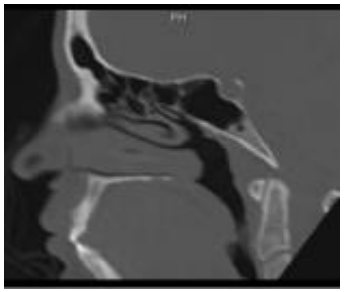
Patient is scanned helical in the supine position. 15cm DFOV Preferred

- Supine helical scan from below upper teeth through frontal sinus
- Only perform the bone reconstructions on the post contrast scan if the exam is performed without and with IV contrast

**For Sagittal Reconstruction the radiologists request to be parallel to hard palate- see image

PACS Series:

- Scout/Topogram
- 1.25 x 1.25 Axial Bone
- 1.25 x 1.25 Axial ST
- 1.25 x 1.25 Coronal Bone
- 1.25 x 1.25 Coronal ST
- 1.25 x 1.25 Sagittal Bone
- 1.25 x 1.25 Sagittal ST
- Patient Protocol/Dose Report



Back to Pedi Neuro Protocol Page

ARA DIAGNOSTIC IMAGING

Scanner	GE Optima 660
Scan Type	Helical
Rotation Time (sec)	0.9
Detector Configuration	40 x 1.25
Pitch	0.984:1
Scan FOV	head
Speed	39.37

Age	kVp	mA	Dose Modulation
0-1yr	**100**	**40**	**N**
2-5yr	**100**	**50**	**N**
6-9 year	**100**	**70**	**N**
10-13	**100**	**90**	**N**

Recon 1 Bone	
Kernal	Bone Plus
Slice thickness (mm)	1.25
Slice increment (mm)	0.625
Recon 2 ST	
Kernal	STND
Slice thickness (mm)	1.25
Slice increment (mm)	0.625
Reformat sets	1.25 x 0.625

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI SINUS IMAGE GUIDED (IGS)/MEDTRONIC-STRYKER - Revised-08/06/2025

CTDI: ~10-20 mGy

Place skin marker on the patient's right cheek prior to scanning

Setup:

- Head first supine , lateral scout from below the mandible through the top of the skull,
  - **Only use the flat sponge**

Scan Parameters:

- For **IGS Sinuses the Scan range** should begin below the teeth and extend through the entire frontal sinuses
- For **Medtronic and Stryker Sinuses Scan range** should begin below the teeth and extend through the top of the skull
- DFOV
  - 25-30 cm DFOV is used for the CD Data set. Include the entire nose and ears
  - 15 cm DFOV is used for all other series

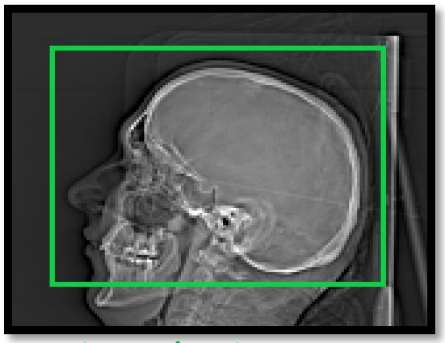
No piercings allowed due to surgical computer/robot limitations in reading images if metal is present

PACS Series:

Topogram

- CD Data Set
  - 1.25 x 1.25 Axial Soft Tissue 25cm DFOV
- 1.25 x 1.25 Axial Bone 15cm DFOV
- 1.25 x 1.25 Coronal Bone 15cm DFOV
- 1.25 x 1.25 Sagittal Bone 15cm DFOV
- 1.25 x 1.25 Axial ST 15cm DFOV
- 1.25 x 1.25 Coronal ST 15cm DFOV
- 1.25 x 1.25 Sagittal ST 15cm DFOV
- Patient Protocol/Dose Report

Image Guided Sinus/IGS Scan Range



Medtronic/Stryker Scan range

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Scanner	GE Optima 660
Scan Type	Helical
Rotation Time (sec)	0.9
Detector Configuration	40 x 1.25
Pitch	0.984:1
Scan FOV	head
Speed	39.37

Age	kVp	mA	Dose Modulation
0-1yr	**100**	**40**	**N**
2-5yr	**100**	**50**	**N**
6-9 year	**100**	**70**	**N**
10-13	**100**	**90**	**N**

Recon 1 Bone	
Kernal	Bone Plus
Slice thickness (mm)	1.25
Slice increment (mm)	1.25
Recon 2 ST	
Kernal	STND
Slice thickness (mm)	1.25
Slice increment (mm)	1.25

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI LUMBAR-Revised-08/06/2025

GE OPTIMA

CTDIvol: ~5-10 mGy

Setup:

1. Supine, AP and Lateral scouts, no gantry angle
2. Extend scout from S2 through T12
3. Patient Positioning:
    - Post Myelography patients must be rolled 360 degrees before scanning; this will help to evenly distribute spinal contrast.
4. Start scan just below S2 through T12
5. Contrast at the discretion of the Radiologist

For Patients with extensive hardware: Use 130 kVp and perform the soft tissue reconstruction with the smoothest possible Kernel/Algorithm possible, and the Bone reformat reconstruction with a standard Kernel/Algorithm: this technique will help to reduce streaking artifact.
(If you are unsure if the amount of implanted hardware is considered extensive please consult with a Radiologist)

PACS Series:

- Lumbar ST
- Lumbar Bone
- Sag Lumbar Spine
- Coronal Lumbar Spine
- Axial Oblique 1
- Patient Protocol/Dose Report

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

DIAGNOSTIC IMAGING

Acquisition Parameters **15 and up use adult protocol

Scan Type	Helical
Pitch and Speed (mm/rot)	0.969:1 (19.38)
Detector Coverage	20 mm
Thick	1.25
Rotation Time	0.5

PT body size	<20 lbs	20-49 lbs	50-89 lbs
Scan FOV	Small Body	Small Body	Large Body
Noise Index	13.4	15.4	17.4
Smart mA Range	50-300	50-350	50-400
kVp	100	100	120

Reconstruction Parameters

Recon 1 Bone	
Algorithm	Bone Plus
ASIR	none
Recon Type	Full
Slice Thickness	1.25
Increment	1.25
Recon 2 Soft Tissue	
Algorithm	Standard
ASIR	50
Recon Type	Full
Slice Thickness	1.25
Increment	1.25
Recon 3 (thins) for reformats	
Algorithm	Standard
ASIR	40
Recon Type	Full
Slice Thickness	1.25
Increment	0.625

Back to Pedi Neuro Protocol Page

Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality

PEDI ST NECK-Revised-08/06/2025

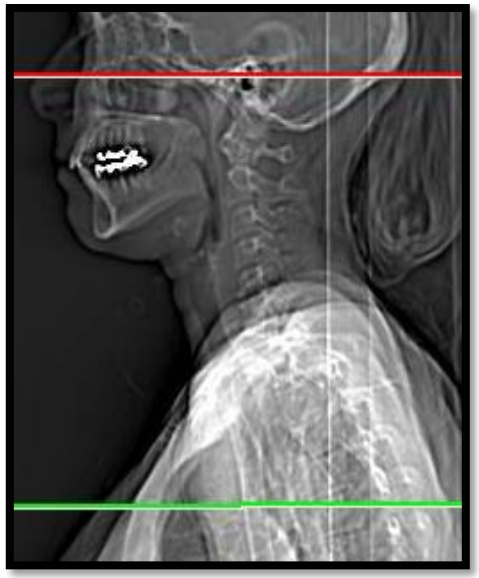
GE OPTIMA

CTDI: ~15-20mGy

- When performing CT Soft Tissue Neck scans on pediatric patients please avoid scanning the orbits unless the anatomy is of concern for the examination. If you are unsure as to include the orbits or not, please seek the advice of a radiologist

Setup:

9. Supine lateral scout
10. Scout should extend through the aortic arch
11. Start scan just below the orbits and scan through the aortic arch
12. DFOV Appropriate for patients body habitus



Scan Parameters:

IV Contrast administered according to chart at the discretion of the Radiologist

Set injection Rate on Power injector based on patient's weight		
<16kg/<35lbs	**1ml per lb @1.5 ml/ sec**	**34 sec delay**
16-25kg/35-55lbs	**40ml @ 1.5/sec**	**45 sec delay**
26/34kg/55-75lbs	**50ml @ 1.5 ml/sec**	**50 sec delay**
>35kg/>76lbs	**75ml @ 2.0 ml/sec**	**60 sec delay**

PACS Series:

- Scout/Topogram
- 1.5 x 1.5 ST Neck
- 1.5 x 1.5 Bone
- 1.5 x 1.5 Coronal
- 1.5 x 1.5 Sagittal
- Dose Report/Protocol Page

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Acquisition Parameters

Scan Type	Helical
Pitch and Speed (mm/rot)	0.969:1 (19.38)
Detector Coverage	20 mm
Thick	1.25
Rotation Time	0.5
Noise index	15
Scan FOV	Small Body

PT body size	<20 lbs	20-49 lbs	50-89 lbs	>90 lbs
Smart mA Range	40-120	60-280	90-280	90-280
kVp	80	100	120	120

Reconstruction Parameters

Recon 1 Soft Tissue	
Algorithm	Standard
ASIR	none
Recon Type	Full
Slice Thickness	1.25
Increment	1.25

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Recon 2 Bone	
Algorithm	Bone Plus
ASIR	none
Recon Type	Full
Slice Thickness	1.25
Increment	1.25
Recon 3 (thins) for reformats	
Algorithm	Standard
ASIR	40
Recon Type	Full
Slice Thickness	1.25
Increment	0.625

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

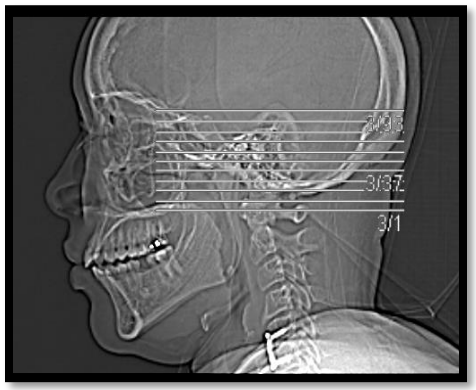
PEDI TEMPORAL BONES-Revised-08/06/2025

GE OPTIMA

Setup:

Supine, AP and lateral scouts, no gantry angle
Patient Positioning: Tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabletop
Start scan just inferior to the skull base and scan through the entire IAC's

DFOV: Preferred 15cm (Range 14-20) *contrast at RAD discretion*

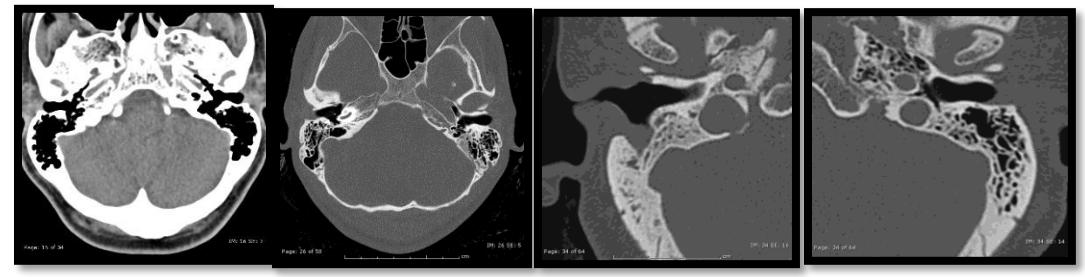


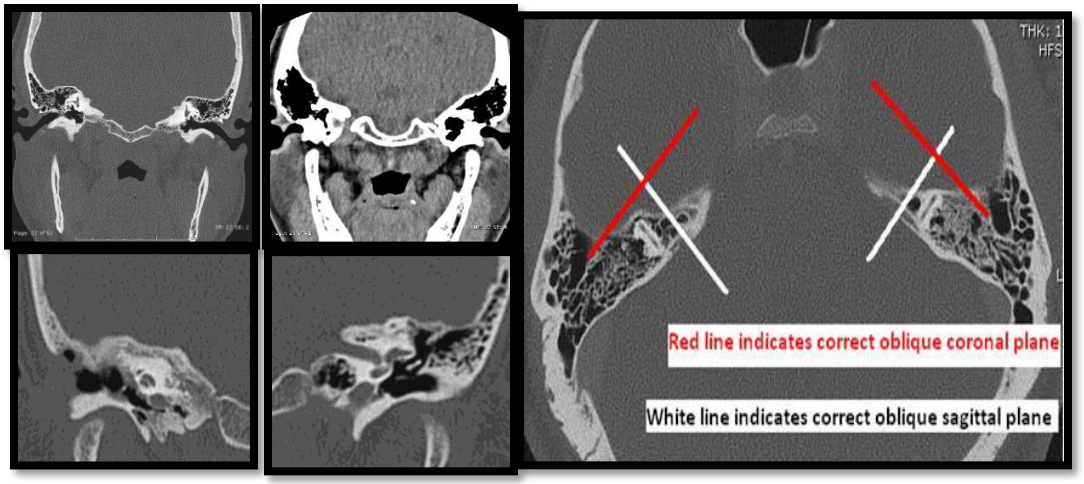
15 and older use adult protocol

Series Order:

- Supine Topogram
- Axial ST
- Axial Bone
- RT Axial Bone
- LT Axial Bone

- Coronal Bone
- Coronal ST
- RT Coronal Bone
- LT Coronal Bone
-
- RT Obl Coronal
- RT Obl Sag
- LT Obl Coronal
- LT Obl Sag





**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

DIAGNOSTIC IMAGING

Acquisition Parameters

Scan Type	Helical
Pitch and Speed (mm/rot)	0.969:1 (19.37)
Detector Coverage	20 mm
Thick	0.625
Rotation Time	0.5
Noise index	18
Scan FOV	Head
kVp	120
Smart mA	On
Auto mA	On
mA Range	30-100
Dose Reduction	30%

Reconstruction Parameters

Recon 1 Soft Tissue	
Algorithm	Standard
ASIR	20
Recon Type	Plus-E
Slice Thickness	0.625
Increment	0.625
Recon 2 Bone	
Algorithm	Bone +
ASIR	none
Recon Type	Plus-E
Slice Thickness	0.625
Increment	0.625
Recon 3 RT Axial (10cm FOV)	
Algorithm	Bone +
ASIR	none
Recon Type	Plus-E
Slice Thickness	0.625
Increment	0.625
Recon 4 LT Axial (10cm FOV)	
Algorithm	Bone +
ASIR	none
Recon Type	Plus-E
Slice Thickness	0.625
Increment	0.625

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

PEDI THORACIC SPINE-Revised-08/06/2025

GE OPTIMA

Setup:

In order to evenly distribute spinal contrast, post myelography patients must be rolled 360 degrees before scanning

- Supine patient position
  a. AP scout from S2 through C7
  b. Lateral scout from S2 through C7
- Bismuth shield used after scout
- Scan from below L1 through C7

PACS Series:

- Scout/Topogram
- 1.5 x 1.5 Axial Soft Tissue
- 1.5 x 1.5 Axial Bone
- 1.5 x 1.5 Sagittal
- 1.5 x 1.5 Coronal
- Dose Report/ Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Acquisition Parameters **15 and up use adult protocol

Scan Type	Helical
Pitch and Speed (mm/rot)	0.969:1 (19.38)
Detector Coverage	20 mm
Thick	1.25
Rotation Time	0.5

PT body size	<20 lbs	20-49 lbs	50-89 lbs
Scan FOV	Small Body	Small Body	Large Body
Noise Index	13.4	15.4	17.4
Smart mA Range	50-300	50-400	50-400
kVp	100	100	120

Reconstruction Parameters

Recon 1 Bone	
Algorithm	Bone Plus
ASIR	none
Recon Type	Full
Slice Thickness	1.25
Increment	1.25
Recon 2 Soft Tissue	
Algorithm	Standard
ASIR	50
Recon Type	Full
Slice Thickness	1.25
Increment	1.25
Recon 3 (thins) for reformats	
Algorithm	Standard
ASIR	40
Recon Type	Full
Slice Thickness	1.25
Increment	0.625

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

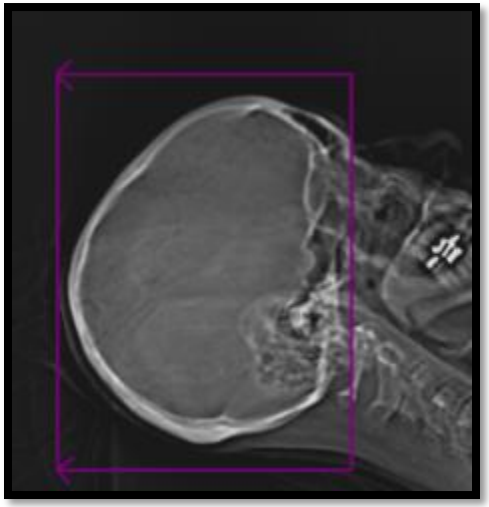
PEDIATRIC BRAIN-Revised-08/06/2025

SIEMENS DEFINITION 40

Setup:

1. Supine lateral scout
2. Patient Positioning: Tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the tabletop.
3. In order to reduce radiation exposure to the lens of the eye, angle the gantry if you cannot place the patient's head within 15 degrees of the proper setup angle
4. Start scan at the bottom of the skull base and scan through the top of the head

DFOV: Appropriate for body habitus (Range 15-22)



PACS Series:

- Scout/Topogram
- Brain S
- Bone
- Bone Coronals (Only performed on 0-6yrs)
- ST Coronals for trauma less than 30 days
- Dose Report/Protocol Page

Set Injection Rate on Power injector based on patient's weight in Kilograms	
<16 kg/<35LBS	20ml @ 1.5 ml/sec
16-25 kg/35-55LBS	40ml @ 1.5 ml/ sec
26-34kg/56-75LBS	60ml @ 1.5 ml/sec
>35kg/>76LBS	80ml @ 2.0 ml/sec

***** 5 Minute Delay*****

St. David's Facilities for contrast protocol please refer to St.David's Health Care- Imaging Medication Dose Protocol

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Acquisition Parameters

Pedi 0-6 years

Scan Type	Spiral
Pitch	1.0
Detector Configuration	32 x 1.2
Slice Thickness	3.0
Rotation Time	1.0
Care Dose	on
Quality Ref mAs	150
kVp	120

Pedi 7-14 years

Scan Type	Spiral
Pitch	0.8
Detector Configuration	32 x 1.2
Slice Thickness	3.0
Rotation Time	1.0
Care Dose	on
Quality Ref mAs	150
kVp	120

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	J40s Medium
SAFIRE	2
Window	Cerebrum
Slice Thickness	3.0 x 3.0
Recon 2 Bone	
Kernel	H60h Sharp FF
SAFIRE	none
Window	Cranial Bone
Slice Thickness	3.0 x 3.0

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Recon 3 Coronal Bone	****Coronal Bone on pedi 0-6 years only**
Kernel	H60f Sharp FF
SAFIRE	None
Window	Cranial Bone
Slice Thickness	2.0 x 2.0
Recon 3 Coronal ST	****Coronal ST on trauma <30days**
Kernel	J37s Medium
SAFIRE	2
Window	Cerebrum
Slice Thickness	3.0 x 3.0

Back to Pedi Neuro Protocol Page

PEDI CAROTIDS-Revised-08/06/2025

SIEMENS DEFINITION 40

1. Supine, Lateral scout, no gantry angle
2. Scout should extend through the aortic arch for smart prep/bolus tracking
3. Patient Positioning:
    - Tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabl etop
    - Retract shoulders as much as possible.
4. Scan from the bottom half of the orbits through the level of the arch (Includes great vessel origins and most of the arch)

DFOV: Preferred 15 cm

Scan Parameters:

1. Contrast:
    - At the discretion of the Radiologist

      Rate of IV -SEE IV GUIDELINES
      Type of IV contrast used: 350 mg/ml
      Volume of Contrast is based on the patient's weight
      A good rule of thumb is to use ~1 ml/lb. up to 75ml
2. Smart Prep/Bolus Tracking – start scanning upon entry of contrast at the level of the aortic arch or trigger at 60 HU

PACS Series:

- ST Axial
- Coronal MIP
- Sagittal MIP
- RT Carotid CPR
- LT Carotid CPR
- RT Vertebral CPR
- LT Vertebral CPR
- 3D VRT
- Patient Protocol/ Dose Report

Back to Pedi Neuro Protocol Page

Acquisition Parameters **15 and up use adult protocol

Scan Type	Spiral
Pitch	1.2
Detector Configuration	40 x 0.6
Slice Thickness	1.4
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	40
kVp should be set based on patient weight	
kVp	<20 lbs 80 >20 lbs 100
FOV	150
Trigger	60

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I31f Medium Smooth
SAFIRE	2
Window	CT Angio
Slice Thickness	1.0 x 1.0
Recon 2 Reformat for 3D	
Kernel	I26f Medium Smooth ASA
SAFIRE	2
Window	CT Angio
Slice Thickness	0.6 x 0.4
Recon 3 Coronal MIP	
Kernel	I31f Medium Smooth

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

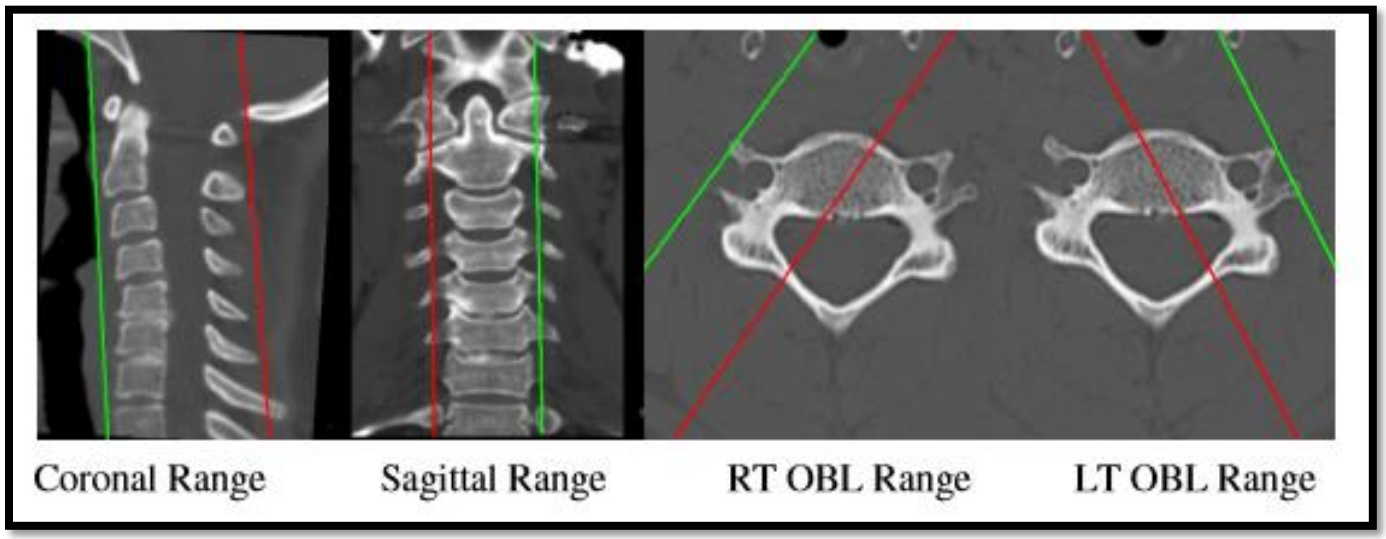
SAFIRE	2
Window	CT Angio
Slice Thickness	1.0 x 1.0
Recon 4 Sagittal MIP	
Kernel	I31f Medium Smooth
SAFIRE	2
Window	CT Angio
Slice Thickness	1.0 x 1.0

Back to Pedi Neuro Protocol Page

PEDI CERVICAL-Revised-08/06/2025

SIEMENS DEFINITION 40

Setup: 1. Supine, Lateral scout, no gantry angle
2. Scout from T3 through the Sella
3. Patient Positioning:
   - If no recent trauma, tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabletop
   - Do not flex or extend the neck if there has been recent spine trauma or if the patient is in a cervical collar.
   - Retract shoulders as much as possible.
4. Start scan just below T1 Through the entire cervical spine



PACS Series:
1. Cervical ST
2. Cervical Bone
3. 1x1 Sag Cervical Spine
4. 1x1 Coronal Cervical Spine
5. 1x1 RT Oblique (not needed for hospital patients)
6. 1x1 LT Oblique (not needed for hospital patients)

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

DIAGNOSTIC IMAGING

Acquisition Parameters

****15 and up use adult protocol**

Scan Type	Spiral
Pitch	1.2
Detector Configuration	40 x 0.6
Slice Thickness	1.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	100
kVp	110
FOV	120

Reconstruction Parameters

Recon 1 Bone	
Kernel	I70f Very Sharp
SAFIRE	1
Window	Osteo
Slice Thickness	1.0 x 1.0
Recon 2 Axial ST	
Kernel	I30f Medium smooth
SAFIRE	2
Window	Spine
Slice Thickness	1.0 x 1.0
Recon 3 Coronal	
Kernel	I70f Medium Sharp ASA
SAFIRE	1
Window	Osteo
Slice Thickness	1.0 x 1.0

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Recon 4 Sagittal	
Kernel	I70f Medium Sharp ASA
SAFIRE	1
Window	Osteo
Slice Thickness	1.0 x 1.0
Recon 5 RT Oblique	
Kernel	I70f Medium Sharp ASA
SAFIRE	1
Window	Osteo
Slice Thickness	1.0 x 1.0
Recon 6 LT Oblique	
Kernel	I70f Medium Sharp ASA
SAFIRE	1
Window	Osteo
Slice Thickness	1.0 x 1.0

Back to Pedi Neuro Protocol Page

PEDI FACIAL BONES/ORBITS-Revised-08/06/2025

SIEMENS DEFINITION 40

Setup: Lateral scout from below the mandible through the frontal sinuses

Position: Supine

DFOV: Appropriate for patients body habitus

Scan Parameters:
Patient is scanned helical in the supine position through the entire area of concern
BB marker placed on patient's right cheek

PACS Series:

- Topogram
- Axial ST
- Axial Bone
- Coronal ST
- Coronal Bone
- Sagittal ST
- Sagittal Bone
- Patient Protocol/Dose Report

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

DIAGNOSTIC IMAGING

Acquisition Parameters**15 and up use adult protocol

Scan Type	Spiral
Pitch	1.0
Detector Configuration	16 x 1.2
Slice Thickness	1.5
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	35
kVp	120
FOV	150

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	J37f Medium Smooth
SAFIRE	2
Window	Sinuses
Slice Thickness	1.5 x 1.5
Recon 2 Axial Bone	
Kernel	H60f Sharp FR
SAFIRE	none
Window	Cranial Bone
Slice Thickness	1.5 x 1.5
Recon 3 Coronal ST	
Kernel	J37f Medium Smooth

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

SAFIRE	2
Window	Sinuses
Slice Thickness	1.5 x 1.5
Recon 4 Coronal Bone	
Kernel	H60f Sharp FR
SAFIRE	none
Window	Inner Ear
Slice Thickness	1.5 x 1.5
Recon 5 Sagittal ST	
Kernel	J37f Medium Smooth
SAFIRE	2
Window	Sinuses
Slice Thickness	1.5 x 1.5
Recon 6 Sagittal Bone	
Kernel	H60f Sharp FR
SAFIRE	None
Window	Inner Ear
Slice Thickness	1.5 x 1.5

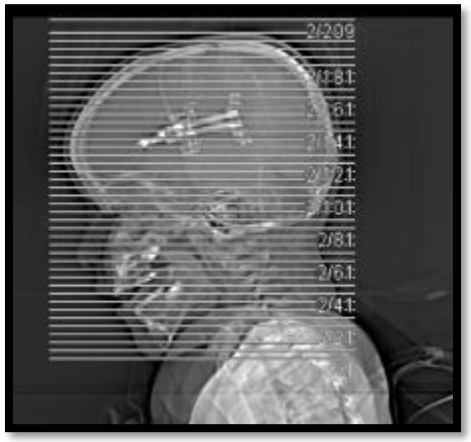
Back to Pedi Neuro Protocol Page

PEDI LOW DOSE CRANIOFACIAL-Revised-08/06/2025

SIEMENS DEFINITION 40

This is to be performed on all pediatric patients under the age of 14

Setup: Lateral scout from below the mandible through the top of the skull
Scan Range: From below the mandible through the top of the skull
DFOV: Appropriate for patients body habitus



PACS Series:

- Topogram
- 1x1 Axial ST
- 1x1 Axial Bone
- 3x3 Oblique Axial ST (Brain)
- 1x1 Bone Coronals
- 1x1 Bone Sagittal
- VRT Rotation
- VRT Tumble
- Patient Protocol/Dose Report

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Scan Type	Spiral
Pitch	1.0
Detector Configuration	40 x 0.6
Slice Thickness	1.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	30
kVp	120
FOV	220

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	J37f Medium Smooth
SAFIRE	2
Window	Cerebrum
Slice Thickness	1.0 x 1.0
Recon 2 Axial Bone	
Kernel	H60f Sharp FR
SAFIRE	none
Window	Cranial Bone
Slice Thickness	1.0 x 1.0
Recon 3 Coronal Bone	
Kernel	H60f Sharp FR
SAFIRE	none
Window	Cranial Bone

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Slice Thickness	1.0 x 1.0
Recon 4 Sagittal Bone	
Kernel	H60f Sharp FR
SAFIRE	none
Window	Cranial Bone
Slice Thickness	1.0 x 1.0
Recon 5 Axial Oblique Brain	
Kernel	J37f Medium Smooth
SAFIRE	2
Window	Cerebrum
Slice Thickness	3.0 x 3.0
Recon 6 Reformat for 3D	
Kernel	J30f Medium Smooth
SAFIRE	2
Window	Cerebrum
Slice Thickness	0.6 x 0.3

Back to Pedi Neuro Protocol Page

PEDI COMPLETE SINUS-Revised-08/06/2025

SIEMENS DEFINITION 40

Setup: Supine, Lateral/PA Scout, No gantry angle

Position: Supine with marker on the RT cheek

DFOV: Appropriate for patients body habitus

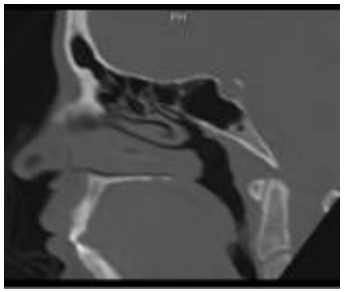
Scan Parameters:

Patient is scanned helical in the supine position. 15cm DFOV Preferred

- Supine helical scan from below upper teeth through frontal sinus
- Only perform the bone reconstructions on the post contrast scan if the exam is performed without and with IV contrast

**For Sagittal Reconstruction the radiologists request to be parallel to hard palate- see image

PACS Series:
- Scout/Topogram
- 1x1 Axial Bone
- 1x1 Axial ST
- 1x1 Coronal Bone
- 1x1 Coronal ST
- 1x1 Sagittal Bone
- 1x1 Sagittal ST
- Patient Protocol/Dose Report



Back to Pedi Neuro Protocol Page

ARA DIAGNOSTIC IMAGING

Scanner	Definition 40
Scan Type	Spiral
Rotation Time (sec)	0.6
Detector Configuration	32 x 1.2
Pitch	1.0

Age	kVp	Quality ref mAs	Dose Modulation
0-14 yr	120	35	yes
15 and up use ADULT protocol			

Recon 1 Soft Tissue	
Kernal	J37s/sinuses
Slice thickness	1
Slice increment	1
Recon 2 Bone	
Kernel	H60 sharp/inner ear
Slice thickness	1
Slice increment	1

Back to Pedi Neuro Protocol Page

PEDI SINUS IMAGE GUIDED (IGS)/MEDTRONIC-STRYKER - Revised-08/06/2025

SIEMENS DEFINITION 40

CTDI: ~10-20 mGy

Place skin marker on the patient's right cheek prior to scanning

Setup:

- Head first supine , lateral scout from below the mandible through the top of the skull,
  - **Only use the flat sponge**

Scan Parameters:

- For **IGS Sinuses the Scan range** should begin below the teeth and extend through the entire frontal sinuses
- For **Medtronic and Stryker Sinuses Scan range** should begin below the teeth and extend through the top of the skull
- DFOV
  - 25-30 cm DFOV is used for the CD Data set. Include the entire nose and ears
  - 15 cm DFOV is used for all other series

No piercings allowed due to surgical computer/robot limitations in reading images if metal is present

PACS Series:

Topogram

- CD Data Set
  - 1x1 Axial Soft Tissue 25cm DFOV
- 1 x 1 Axial Bone 15cm DFOV
- 1 x 1 Coronal Bone 15cm DFOV
- 1 x 1 Sagittal Bone 15cm DFOV
- 1 x 1 Axial ST 15cm DFOV
- 1 x 1 Coronal ST 15cm DFOV
- 1 x 1 Sagittal ST 15cm DFOV
- Patient Protocol/Dose Report

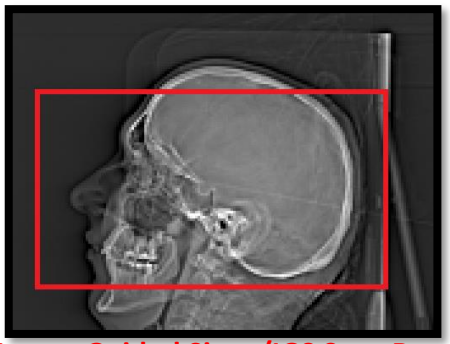
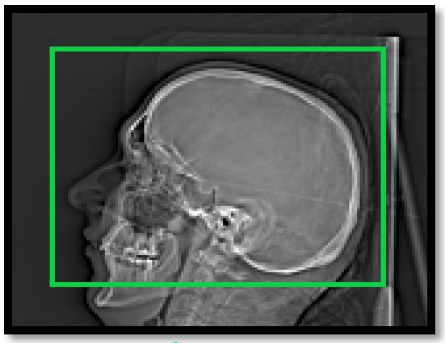


Image Guided Sinus/IGS Scan Range



Medtronic/Stryker Scan range

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Scanner	Definition 40
Scan Type	Spiral
Rotation Time (sec)	0.6
Detector Configuration	32 x 1.2
Pitch	1.0

Age	kVp	Quality ref mAs	Dose Modulation
0-14 yr	120	35	yes
15 and up use ADULT protocol			

Recon 1 Soft Tissue	
Kernal	J37s/sinuses
Slice thickness	1
Slice increment	1
Recon 2 Bone	
Kernel	H60 sharp/inner ear
Slice thickness	1
Slice increment	1

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI LUMBAR-Revised-11/7/2017

SIEMENS DEFINITION 40

CTDIvol: ~5-10 mGy

Setup:

1. Supine, AP and Lateral scouts, no gantry angle
2. Extend scout from S2 through T12
3. Patient Positioning:
    - Post Myelography patients must be rolled 360 degrees before scanning; this will help to evenly distribute spinal contrast.
4. Start scan just below S2 through T12
5. Contrast at the discretion of the Radiologist

For Patients with extensive hardware: Use 130 kVp and perform the soft tissue reconstruction with the smoothest possible Kernel/Algorithm possible, and the Bone reformat reconstruction with a standard Kernel/Algorithm: this technique will help to reduce streaking artifact.
(If you are unsure if the amount of implanted hardware is considered extensive please consult with a Radiologist)

PACS Series:

- Lumbar ST
- Lumbar Bone
- Sag Lumbar Spine
- Coronal Lumbar Spine
- Axial Oblique 1
- Patient Protocol/Dose Report

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Scan Type	Spiral
Pitch	1.0
Detector Configuration	16 x 1.2
Slice Thickness	1.5
Rotation Time	1.0
Care Dose	on
Quality Ref mAs	90
kVp	120
FOV	150

Soft Tissue Axial	
Kernel	I31s medium smooth/Spine
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Bone Axial	
Algorithm/ Kernel	I70h very sharp/ Osteo
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Coronal	
Kernel	I70h very sharp
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Sagittal	
Algorithm/ Kernel	I70h very sharp
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Obl Axial	
Kernel	I70h very sharp
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5

Back to Pedi Neuro Protocol Page

PEDI ST NECK-Revised-08/06/2025

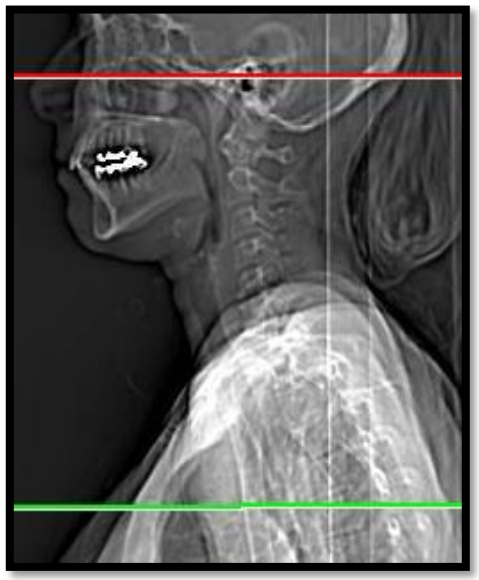
SIEMENS DEFINITION 40

CTDI: ~15-20mGy

- When performing CT Soft Tissue Neck scans on pediatric patients please avoid scanning the orbits unless the anatomy is of concern for the examination. If you are unsure as to include the orbits or not, please seek the advice of a radiologist

Setup:

13. Supine lateral scout
14. Scout should extend through the aortic arch
15. Start scan just below the orbits and scan through the aortic arch
16. DFOV Appropriate for patients body habitus



Scan Parameters:

IV Contrast administered according to chart at the discretion of the Radiologist

Set injection Rate on Power injector based on patient's weight		
<16kg/<35lbs	**1ml per lb @1.5 ml/ sec**	**34 sec delay**
16-25kg/35-55lbs	**40ml @ 1.5/sec**	**45 sec delay**
26/34kg/55-75lbs	**50ml @ 1.5 ml/sec**	**50 sec delay**
>35kg/>76lbs	**75ml @ 2.0 ml/sec**	**60 sec delay**

PACS Series:

- Scout/Topogram
- 1.5 x 1.5 ST Neck
- 1.5 x 1.5 Bone
- 1.5 x 1.5 Coronal
- 1.5 x 1.5 Sagittal
- Dose Report/Protocol Page

Back to Pedi Neuro Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Scan Type	Spiral
Pitch	1.2
Detector Configuration	16 x 1.2
Slice Thickness	1.5
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	90
kVp	100
FOV	150

Soft Tissue Axial	
Kernel	I31f med smooth/Larynx
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Bone Axial	
Algorithm/ Kernel	I50f med sharp ASA/Osteo
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Coronal	
Kernel	I31f med smooth
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Sagittal	
Algorithm/ Kernel	I31f med smooth/Larynx
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Obl Axial	
Kernel	I41s
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

PEDI TEMPORAL BONES-Revised-08/06/2025

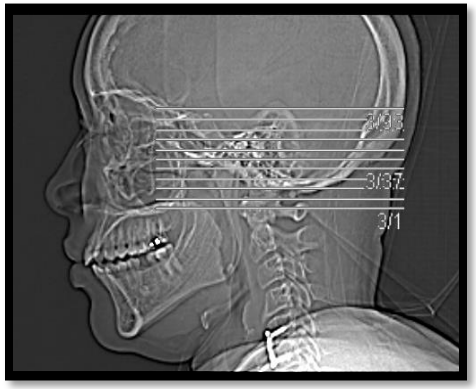
SIEMENS DEFINITION 40

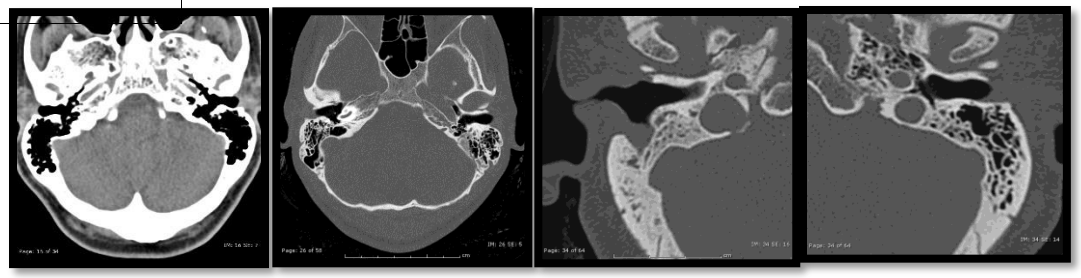
Setup:

Supine, AP and lateral scouts, no gantry angle
Patient Positioning: Tilt the patients head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabletop
Start scan just inferior to the skull base and scan through the entire IAC's

DFOV: Preferred 15cm (Range 14-20) *contrast at RAD discretion*

Scanner	Definition 40	
Scan Type	Spiral	
Rotation Time (sec)	0.6	
Detector Configuration	4 x 0.6	
Pitch	1.0	
Age	0-14	15 and older use adult protocol
kVp	110	
Quality ref mAs	90	
Care Dose 4D	Y	





Series Order:

- Supine Topogram
- Axial ST
- Axial Bone
- RT Axial Bone
- LT Axial Bone

- Coronal Bone
- Coronal ST
- RT Coronal Bone
- LT Coronal Bone
- RT Obl Coronal
- RT Obl Sag
- LT Obl Coronal
- LT Obl Sag

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

ARA DIAGNOSTIC IMAGING

Soft Tissue Axial	
Algorithm/ Kernel	H30s med smooth/Sinuses
SAFIRE	0
Slice thickness (mm)	0.6
Slice Increment (mm)	0.6
Bone Axial	
Algorithm/ Kernel	H60s Sharp FR/ Inner Ear
SAFIRE	0
Slice thickness (mm)	0.6
Slice Increment (mm)	0.6
RT Axial Bone 10cm DFOV	
Algorithm/ Kernel	H60s Sharp FR/ Inner Ear
SAFIRE	0
Slice thickness (mm)	0.6
Slice Increment (mm)	0.6
LT Axial Bone 10cm DFOV	
Algorithm/ Kernel	H60s Sharp FR/ Inner Ear
SAFIRE	0
Slice thickness (mm)	0.6
Slice Increment (mm)	0.6
RT Axial Bone Reformat 10cm DFOV	
Algorithm/ Kernel	H60s Sharp FR/ Inner Ear
SAFIRE	0
Slice thickness (mm)	0.6
Slice Increment (mm)	0.3
LT Axial Bone Reformat 10cm DFOV	
Algorithm/ Kernel	H60s Sharp FR/ Inner Ear
SAFIRE	0
Slice thickness (mm)	0.6
Slice Increment (mm)	0.3

Back to Pedi Neuro Protocol Page

PEDI THORACIC SPINE-Revised-08/06/2025

SIEMENS DEFINITION 40

Setup:

In order to evenly distribute spinal contrast, post myelography patients must be rolled 360 degrees before scanning

- Supine patient position
  a. AP scout from S2 through C7
  b. Lateral scout from S2 through C7
- Bismuth shield used after scout
- Scan from below L1 through C7

PACS Series:

- Scout/Topogram
- 1.5 x 1.5 Axial Soft Tissue
- 1.5 x 1.5 Axial Bone
- 1.5 x 1.5 Sagittal
- 1.5 x 1.5 Coronal
- Dose Report/ Protocol Page

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

Scan Type	Spiral
Pitch	1.2
Detector Configuration	16 x 1.2
Slice Thickness	1.5
Rotation Time	1.0
Care Dose	on
Quality Ref mAs	90
kVp	120
FOV	150

Soft Tissue Axial	
Kernel	I31s med smooth/Spine
SAFIRE	2
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Bone Axial	
Algorithm/ Kernel	I70h very sharp ASA/Osteo
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Coronal	
Kernel	I70h very sharp ASA
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5
Sagittal	
Algorithm/ Kernel	I70h very sharp ASA
SAFIRE	1
Slice thickness (mm)	1.5
Slice Increment (mm)	1.5

Back to Pedi Neuro Protocol Page

Protocol Review

CT Protocols are reviewed by the Radiation Safety Protocol Committee.

Committee members consists of ARA Radiation Safety Officer, Radiologists, ARA Outpatient Imaging Center Directors, Manager of Quality, Safety and Risk Management and Lead CT Technologists

Protocol(s) Review Date
09/04/2024
08/06/2025

**Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality*

*Protocol designed to minimize the amount of radiation while maximizing the yield and produce diagnostically acceptable image quality