Austin Radiological Association

CT Pediatric Body Protocols

Questions?

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

PEDIATRIC BODY PROTOCOLS

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

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ARA DIAGNOSTIC IMAGING

PEDIATRIC ORAL CONTRAST DOSE CHART

If patient is allergic to Iodine notify Radiologist

Chart is for patients weighing up to 36kg.Patients over 36kg will receive maximum dose. See below

- **Round weight to nearest whole kilogram**
- **Diluents may be non-carbonated beverage or water (formula or milk if newborn to 6 months). Give by mouth.**

Gastrographin 30 ml: must be diluted before administration

- 30ml vial: Distribute 15ml of contrast in 12oz of water or non-carbonated beverage x 2 cups for a total dose of 30ml in 24oz.
- Patient drinks both cups consecutively at the time specified by CT Technologist.

2% Barium Sulfate: ***Give only if patient is allergic to iodine.***

- 1 X 450ml bottles for a total dose of 450ml.(Do not dilute)
- Patient drinks during the amount of time specified by the CT Technologist.

Omnipaque: must be diluted before administration

- Pedi calculation = 0.86 ml x the patient's weight in kg = (Volume of Omnipaque x 30ml of diluent) = total volume

  Example: 0.86ml x 10 kg = 8.6 ml of Omnipaque x 30ml of diluent = 258 ml total volume

  (Total Volume is the dose of Omnipaque plus the diluents needed for the final dose for this patient)

Diluents may be noncarbonated beverage or water (formula or milk may be used.)

Oral administration

- ***Max patient weight for this formula is 36kg. If patient weight is 36kg or greater, the patient will receive the maximum dose of Omnipaque specified on the dosage chart.***

The time and rate of administration will be communicated by the CT Technologist based on the following time schedule.

- **0-10 kg drinks oral prep over thirty minutes**
- **10-20kg drinks oral prep over one hour (1)**
- **20-36kg drinks oral prep over one to one and a half hours (1.5)**

Back to Pedi Body Protocol Page

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ARA DIAGNOSTIC IMAGING

Pediatric Oral Contrast Dosage Chart

If patient is allergic to Iodine notify Radiologist

Chart is for patients weighing up to 36kg.Patients over 36kg will receive maximum dose. See below

- Round weight to nearest whole kilogram
- Diluents may be non-carbonated beverage or water (formula or milk if newborn to 6 months). Give by mouth.

Weight in KG	Oral Omnipaque 240-300	Amount of Diluent	Total Volume (Omni plus Diluent)
1	1	25	26
2	2	49	51
3	3	75	78
4	3	99	102
5	4	125	129
6	5	151	156
7	6	174	180
8	7	200	207
9	8	223	231
10	9	249	258
11	10	275	285
12	10	299	309
13	11	325	336
14	12	348	360
15	13	377	390
16	14	400	414
17	15	423	438
18	15	450	465
19	16	473	489
20	17	499	516
21	18	522	540
22	19	551	570
23	20	574	594
24	21	597	618
25	22	623	645
26	22	650	672
27	23	673	696
28	24	696	720
29	25	725	750
30	26	748	774
31	27	774	801
32	28	797	825
33	28	824	852
34	29	847	876
35	30	870	900
36	31	899	930
>36	31	899	930

Formula used in calculations: Omnipaque 240 0.86ml/kg X Pt Kg weight = Omnipaque amount (mls)
Omnipaque amount (mls) x 30mls diluent = Total volume Total volume – Omnipaque vol = Diluent volume (mls)

Back to Pedi Body Protocol Page

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ARA DIAGNOSTIC IMAGING

Patient Positioning

- Both arms should be raised above the head for optimal image quality
- If the patient cannot raise one arm, one arm down is preferred to both arms down and this information should be documented in tech notes for the radiologist
- If both arms are unable to be raised, this information should be documented in tech notes for the radiologist

Back to Pedi Body Protocol Page

ARA DIAGNOSTIC IMAGING

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	325
22g	Less than or equal to 3.5cc/sec	325
20g	Less than or equal to 4cc/sec	325
18g	Less than or equal to 5cc/sec	325

PEDI CHEST/ABDOMEN/PELVIS AND PEDI ABDOMEN/PELVIS

Set injection Rate on Power injector based on pt's weight		
<30 lbs	**1ml per lb @1.5 ml/ sec**	**60 sec delay**
31-50 lbs	**40ml @ 1.5/sec**	**60 sec delay**
51-100 lbs	**50ml @ 1.5 ml/sec**	**60 sec delay**
101-210 lbs	**75ml @ 2.0 ml/sec**	**60 sec delay**

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

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PEDIATRIC CT BODY GENERAL GUIDELINES

Abdomen

- **Abdomen only orders for pain must be verified with the referring clinician/radiologist that pelvis is not needed**
- **If IV access is obtained and the patient presents with acute right lower quadrant pain or are here to evaluate for appendicitis oral prep is not needed**

Delayed imaging of the Kidneys, Ureters and Bladder for:

- **H/O Trauma, Hydronephrosis, Immune-Compromised with suspected infection**
- **Consult with Radiologist on any other circumstances where additional imaging may be needed.**

Chest

- **Pediatric Radiologist needs to be consulted for special instructions when a patient presents with a diagnosis of empyema and or pleural effusion**

Back to Pedi Body Protocol Page

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PEDI CHEST-Revised-08/06/2025

SIEMENS PERSPECTIVE

CTDIvol: ~5-10 mGy

· Pediatric Radiologist needs to be consulted for special instructions when a patient presents with a diagnosis of empyema and or pleural effusion

Setup:

Supine, AP Scout from above the diaphragm through the costophrenic angles , patient to be shielded with lead skirt

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 pt's weight		
<35 lbs	**20ml @1.5ml/ sec**	**15 sec delay**
36-55 lbs	**40ml @ 2.0 ml/sec**	**20 sec delay**
>56 lbs	**50ml @ 2.0 ml/sec**	**25 sec delay**

PACS Series:

- Topogram
- 3x3 Soft Tissue
- 3x3 Lung
- 3x3 Soft Tissue Coronal
- 3x3 Soft Tissue Sagittal
- Dose Report/ Protocol Page

Back to Pedi Body Protocol Page

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

PEDI CHEST/ABD/PELVIS- Revised-08/06/2025

SIEMENS PERSPECTIVE

Acquisition Parameters

Scan Type	Spiral
Pitch	1.3
Detector Configuration	32 x 1.2
Slice Thickness	3.0
Rotation Time	0.6
Care Dose	on
Quality Ref mAs	65
kVp	110

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I31s Medium
SAFIRE	3
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 2 Lung	
Kernel	I50s Medium Sharp
SAFIRE	3
Window	Lung
Slice Thickness	3.0 x 3.0
Recon 3 Coronal	
Kernel	I31s Medium
SAFIRE	3
Window	Mediastinum
Slice Thickness	3.0 x 3.0

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Recon 4 Sagittal	
Kernel	I31s Medium
SAFIRE	3
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 5 Reformat	
Kernel	I31s Medium
SAFIRE	3
Window	Mediastinum
Slice Thickness	2.0 x 1.0

Back to Pedi Body Protocol Page

PEDI ABDOMEN PELVIS- Revised-08/06/2025

SIEMENS PERSPECTIVE

Acquisition Parameters

Scan Type	Spiral
Pitch	1.3
Detector Configuration	32 x 1.2
Slice Thickness	3.0
Rotation Time	0.6
Care Dose	on
Quality Ref mAs	75
kVp	110

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I31s Medium Smooth +
SAFIRE	3
Window	Abdomen
Slice Thickness	3.0 x 3.0
Recon 3 Coronal	
Kernel	I31s Medium Smooth +
SAFIRE	3
Window	Abdomen
Slice Thickness	3.0 x 3.0
Recon 4 Sagittal	
Kernel	I31s Medium Smooth +
SAFIRE	3
Window	Abdomen
Slice Thickness	3.0 x 3.0

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PEDI HI-RES CHEST- Revised-08/06/2025

SIEMENS PERSPECTIVE

Setup:

1. Supine, AP Scout from above apices through the adrenal glands

DFOV:

Appropriate for patients body habitus

Scan Parameters:

Supine:

1. Scan from above the apices through the adrenal glands

Dynamic Expiration:

1. These axial/sequential scans will be performed while the patient is actively breathing out
    - While in the supine position have the patient take in a full breath and slowly breathe out.
    - While the patient is breathing out 5 rapid sequential scans will be performed at the same table position. This will be done at three different levels.
2. There will be 5 sequential 2- 2.5 mm axial scans performed at three different levels
    - Upper Chest ~ midway between the carina and apices
    - Mid Chest at the level of the carina
    - Lower Chest~ midway between the carina and the costophrenic angles

Reconstruction:

1. Recon 1 is a Soft Tissue axial data set
2. Recon 2 is a Lung axial data set
3. MPR's should be reconstructed at 1mm x 5mm in a lung algorithm/kernel

PACS Series:

- Topogram Supine
- Mediastinum
- Lung
- Lung Coronal
- Lung Sagittal
- Dynamic Lung Expiration 1
- Dynamic Lung Expiration 2
- Dynamic Lung Expiration 3
- Patient Protocol/Dose Report

Back to Pedi Body Protocol Page

ARA DIAGNOSTIC IMAGING

Acquisition Parameters

Supine Spiral Acquisition	
Scan Type	Spiral
Pitch	1.3
Detector Configuration	32 x 1.2
Slice Thickness	3.0
Rotation Time	0.6
Care Dose	on
Quality Ref mAs	65
kVp	110

Sequential Expiration Acquisitions	
Scan Type	Sequential
Scan Time	Quick 0.4s
Detector Configuration	2 x 1.0
Slice Thickness	2.0
Cycle Time	1.5 s
Care Dose	on
Quality Ref mAS	55
kVp	110
Feed	0 mm
Number of scans	5

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I31s Medium Smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 2 Lung	
Kernel	I50s Medium Sharp
SAFIRE	3
Window	Lung
Slice Thickness	1.0 x 5.0

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Recon 3 Coronal	
Kernel	I50s Medium Sharp
SAFIRE	3
Window	Lung
Slice Thickness	1.0 x 5.0
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

Expiration	
Kernel	B80s very sharp
SAFIRE	None
Window	Lung
Slice Thickness	2.0 mm

Back to Pedi Body Protocol Page

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

PEDI CHEST PECTUS EXCAVATUM- Revised-08/06/2025

SIEMENS PERSPECTIVE

CTDIvol: ~5-10mGy

Setup:
Supine, AP Scout from above the apices through the costrophrenic angles

DFOV:
Appropriate for patients body habitus

Scan Parameters:
Acquire images during full inspiration from above the apices through the costrophrenic angles

PACS Series:

- Topogram
- 2x2 Soft Tissue
- 2x2 Lung
- 2x2 Bone
- 2x2 Soft Tissue Coronal
- 2x2 Soft Tissue Sagittal
- 2x2 Bone Coronal
- 2x2 Bone Sagittal
- Dose Report/ Protocol Page

Back to Pedi Body Protocol Page

ARA DIAGNOSTIC IMAGING

Acquisition Parameters

Scan Type	Spiral
Pitch	1.3
Detector Configuration	32 x 1.2
Slice Thickness	2.0
Rotation Time	0.6
Care Dose	on
Quality Ref mAs	65
kVp	110

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I31s Medium Smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	2.0 x 2.0
Recon 2 Lung	
Kernel	I50s Medium Sharp
SAFIRE	3
Window	Lung
Slice Thickness	2.0 x 2.0
Recon 3 Bone	
Kernel	I80s Very Sharp
SAFIRE	3
Window	Osteo
Slice Thickness	2.0 x 2.0

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Recon 4 Coronal ST	
Kernel	I31s Medium Smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	2.0 x 2.0
Recon 5 Sagittal ST	
Kernel	I31s Medium Smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	2.0 x 2.0
Recon 6 Coronal Bone	
Kernel	I80s Very Sharp
SAFIRE	3
Window	Osteo
Slice Thickness	2.0 x 2.0
Recon 7 Sagittal Bone	
Kernel	I80s Very Sharp
SAFIRE	3
Window	Osteo
Slice Thickness	2.0 x 2.0
Recon 8 Reformat	
Kernel	I31s Medium Smooth +
SAFIRE	3
Window	Osteo
Slice Thickness	2.0 x 1.0

Back to Pedi Body Protocol Page

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

PEDI FOREIGN BODY AIRWAY WITHOUT CONTRAST- Revised-08/06/2025

SIEMENS PERSPECTIVE

CTDIvol: ~5-10 mGy

· Pediatric Radiologist needs to be consulted for special instructions to pick from the 3 options for scan field of view

Scan FOV Options:

1. Neck to EG Junction=Hard palate to just below hemidiaphragms OR
2. Neck to main bronchi=Hard palate to below main stem bronchi OR
   Scan should end above lung bases OR
3. Thoracic inlet to EG junction=Thoracic inlet to just below hemidiaphragms

Setup:

Supine, AP Scout from hard palate to base of lungs on inspiration , patient to be shielded with lead skirt

PACS Series:

- Topograms AP/LAT
- 5x5 Soft Tissue Axials
- 3x2 Sagittal and coronals
- 3x3 Axial lung
- 10x2 Axial lung MIP
- Dose Report/ Protocol Page

Exam Ordered: CT Foreign Body-Airway or Esophagus, though may still be ordered as CT chest. Look for comments and dx; FB or Foreign body. Be aware some ENT md may put in comments “dynamic airway”, which is incorrect. CT does not perform dynamic airway for FB.

Contrast: Default is no oral and no IV contrast. Oral contrast may be protocolled at discretion of radiologist. If protocolled with IV contrast, convert to contrast enhanced CT Chest.

Back to Pedi Body Protocol Page

Acquisition Parameters

Scan Type	Spiral
Pitch	1.3
Detector Configuration	32 x 1.2
Slice Thickness	5.0
Rotation Time	0.6
Care Dose	on
Quality Ref mAs	65
kVp	80

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	5.0 x 5.0
Recon 2 Lung	
Kernel	I50s Medium Sharp
SAFIRE	3
Window	Lung
Slice Thickness	3.0 x 3.0
Recon 3 Coronal	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	3.0 x 2.0
Recon 4 Sagittal	
Kernel	I31s Medium smooth +

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SAFIRE	3
Window	Mediastinum
Slice Thickness	3.0 x 2.0
Recon 5 Reformat	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	2.0 x 1.0
Recon 5 Lung MIP	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	10.0 x 2.0

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PEDI CHEST- Revised-08/06/2025

SIEMENS DEFINITION 64

CTDIvol: ~5-10 mGy

· Pediatric Radiologist needs to be consulted for special instructions when a patient presents with a diagnosis of empyema and or pleural effusion

Setup:

Supine, AP Scout from above the diaphragm through the costophrenic angles , patient to be shielded with lead skirt

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 pt's weight		
<35 lbs	**20ml @1.5ml/ sec**	**15 sec delay**
36-55 lbs	**40ml @ 2.0 ml/sec**	**20 sec delay**
>56 lbs	**50ml @ 2.0 ml/sec**	**25 sec delay**

PACS Series:

- Topogram
- 3x3 Soft Tissue
- 3x3 Lung
- 3x3 Soft Tissue Coronal
- 3x3 Soft Tissue Sagittal
- Dose Report/ Protocol Page

Back to Pedi Body Protocol Page

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

PEDI CHEST- Revised-9/14/2018

SIEMENS DEFINITION 64

Acquisition Parameters

Scan Type	Spiral
Pitch	1.0
Detector Configuration	16 x 1.2
Slice Thickness	3.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	50
Care kV	on
kVp	120
Slider Position	7

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 2 Lung	
Kernel	B70f Very Sharp
SAFIRE	none
Window	Lung
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	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 4 Sagittal	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 5 Reformat	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	1.5 x 0.65
Recon 6 Lung MIP	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	Lung
Slice Thickness	10.0 x 7.0

Back to Pedi Body Protocol Page

PEDI CHEST/ABD/PELVIS- Revised-08/06/2025

SIEMENS DEFINITION 64

Acquisition Parameters

Scan Type	Spiral
Pitch	1.2
Detector Configuration	16 x 1.2
Slice Thickness	3.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	80
Care kV	on
kVp	120
Slider Position	7

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I41f Medium
SAFIRE	2
Window	Abdomen
Slice Thickness	3.0 x 3.0
Recon 2 Lung	
Kernel	B70f Very Sharp
SAFIRE	none
Window	Lung
Slice Thickness	3.0 x 3.0
Recon 3 Coronal	

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

Kernel	I41f Medium
SAFIRE	2
Window	Abdomen
Slice Thickness	3.0 x 3.0
Recon 4 Sagittal	
Kernel	I41f Medium
SAFIRE	2
Window	Abdomen
Slice Thickness	3.0 x 3.0
Recon 5 Reformat	
Kernel	I41f Medium
SAFIRE	2
Window	Abdomen
Slice Thickness	1.5 x 0.65
Recon 6 Lung MIP	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	Lung
Slice Thickness	10.0 x 7.0

Back to Pedi Body Protocol Page

PEDI ABDOMEN PELVIS- Revised-08/06/2025

SIEMENS DEFINITION 64

Acquisition Parameters

Scan Type	Spiral
Pitch	1.2
Detector Configuration	16 x 1.2
Slice Thickness	3.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	80
Care kV	on
kVp	120
Slider Position	7

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I41f Medium
SAFIRE	2
Window	Abdomen
Slice Thickness	3.0 x 3.0
Recon 3 Coronal	
Kernel	I41f Medium
SAFIRE	2
Window	Abdomen
Slice Thickness	3.0 x 3.0
Recon 4 Sagittal	

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

Kernel	I41f Medium
SAFIRE	2
Window	Abdomen
Slice Thickness	3.0 x 3.0

Back to Pedi Body Protocol Page

PEDI HI-RES CHEST- Revised-08/06/2025

SIEMENS DEFINITION 64

Setup:

1. Supine, AP Scout from above apices through the adrenal glands

DFOV:

Appropriate for patients body habitus

Scan Parameters:

Supine:

1. Scan from above the apices through the adrenal glands

Dynamic Expiration:

1. These axial/sequential scans will be performed while the patient is actively breathing out
    - While in the supine position have the patient take in a full breath and slowly breathe out.
    - While the patient is breathing out 5 rapid sequential scans will be performed at the same table position. This will be done at three different levels.
2. There will be 5 sequential 2- 2.5 mm axial scans performed at three different levels
    - Upper Chest ~ midway between the carina and apices
    - Mid Chest at the level of the carina
    - Lower Chest~ midway between the carina and the costophrenic angles

Reconstruction:

1. Recon 1 is a Soft Tissue axial data set
2. Recon 2 is a Lung axial data set
3. MPR's should be reconstructed at 1mm x 5mm in a lung algorithm/kernel

PACS Series:

- Topogram Supine
- Mediastinum
- Lung
- Lung Coronal
- Lung Sagittal
- Dynamic Lung Expiration 1
- Dynamic Lung Expiration 2
- Dynamic Lung Expiration 3
- Patient Protocol/Dose Report

Back to Pedi Body Protocol Page

PEDI HI-RES CHEST- Revised-08/06/2025

SIEMENS DEFINITION 64

Acquisition Parameters

Supine Spiral Acquisition	
Scan Type	Spiral
Pitch	1.2
Detector Configuration	64 x 0.6
Slice Thickness	3.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	50
Care kV on	120
Slider Position	3

Sequential Expiration Acquisitions	
Scan Type	Sequential
Scan Time	Full 0.33s
Detector Configuration	2 x 1.0
Slice Thickness	2.0
Cycle Time	0.66s
Care Dose	on
Quality Ref mAS	50
Care kV on	120
Slider Position	3
Feed	0 mm
Number of scans	5

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 2 Lung	
Kernel	I50f Medium Sharp ASA
SAFIRE	2
Window	Lung
Slice Thickness	1.0 x 5.0

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Recon 3 Coronal	
Kernel	I50f Medium Sharp ASA
SAFIRE	2
Window	Lung
Slice Thickness	1.0 x 5.0
Recon 4 Sagittal	
Kernel	I50f Medium Sharp ASA
SAFIRE	2
Window	Lung
Slice Thickness	1.0 x 5.0
Recon 5 Reformat	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	1.0 x 0.5

Expiration	
Kernel	B80f ultra sharp
SAFIRE	None
Window	Lung
Slice Thickness	2.0 mm

Back to Pedi Body Protocol Page

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

PEDI CHEST PECTUS EXCAVATUM- Revised-08/06/2025

SIEMENS DEFINITION 64

CTDIvol: ~5-10mGy

Setup:
Supine, AP Scout from above the apices through the costrophrenic angles

DFOV:
Appropriate for patients body habitus

Scan Parameters:
Acquire images during full inspiration from above the apices through the costrophrenic angles

PACS Series:

- Topogram
- 2x2 Soft Tissue
- 2x2 Lung
- 2x2 Bone
- 2x2 Soft Tissue Coronal
- 2x2 Soft Tissue Sagittal
- 2x2 Bone Coronal
- 2x2 Bone Sagittal
- Dose Report/ Protocol Page

Back to Pedi Body Protocol Page

PEDI CHEST PECTUS EXCAVATUM- Revised-08/06/2025

Acquisition Parameters

Scan Type	Spiral
Pitch	1.0
Detector Configuration	16 x 1.2
Slice Thickness	2.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	50
Care kV	on
kVp	120
Slider Position	7

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	2.0 x 2.0
Recon 2 Lung	
Kernel	B70f Very Sharp
SAFIRE	none
Window	Lung
Slice Thickness	2.0 x 2.0

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

Recon 3 Coronal	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	2.0 x 2.0
Recon 4 Sagittal	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	2.0 x 2.0
Recon 5 Reformat	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	1.5 x 0.6
Recon 6-8 Bone axial/cor/sag	
Kernel	B70f Very Sharp
SAFIRE	0
Window	Osteo
Slice Thickness	2.0 x 2.0

PEDI FOREIGN BODY AIRWAY WITHOUT CONTRAST- Revised-08/06/2025

SIEMENS DEFINITION

CTDIvol: ~5-10 mGy

· Pediatric Radiologist needs to be consulted for special instructions to pick from the 3 options for scan field of view

Scan FOV Options:

4. Neck to EG Junction=Hard palate to just below hemidiaphragms OR
5. Neck to main bronchi=Hard palate to below main stem bronchi OR
   Scan should end above lung bases OR
6. Thoracic inlet to EG junction=Thoracic inlet to just below hemidiaphragms

Setup:

Supine, AP Scout from hard palate to base of lungs on inspiration

PACS Series:

- Topograms AP/LAT
- 5x5 Soft Tissue Axials
- 3x2 Sagittal and coronals
- 3x3 Axial lung
- 10x2 Axial lung MIP
- Dose Report/ Protocol Page

Exam Ordered: CT Foreign Body-Airway or Esophagus, though may still be ordered as CT chest. Look for comments and dx; FB or Foreign body. Be aware some ENT md may put in comments “dynamic airway”, which is incorrect. CT does not perform dynamic airway for FB.

Contrast: Default is no oral and no IV contrast. Oral contrast may be protocolled at discretion of radiologist. If protocolled with IV contrast, convert to contrast enhanced CT Chest.

Back to Pedi Body Protocol Page

Acquisition Parameters

Scan Type	Spiral
Pitch	1.3
Detector Configuration	32 x 1.2
Slice Thickness	5.0
Rotation Time	0.6
Care Dose	on
Quality Ref mAs	65
kVp	80

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	5.0 x 5.0
Recon 2 Lung	
Kernel	I50s Medium Sharp
SAFIRE	3
Window	Lung
Slice Thickness	3.0 x 3.0
Recon 3 Coronal	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	3.0 x 2.0
Recon 4 Sagittal	
Kernel	I31s Medium smooth +

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

SAFIRE	3
Window	Mediastinum
Slice Thickness	3.0 x 2.0
Recon 5 Reformat	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	2.0 x 1.0
Recon 5 Lung MIP	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	10.0 x 2.0

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

PEDI CHEST- Revised-08/06/2025

GE OPTIMA

CTDIvol: ~5-10 mGy

· Pediatric Radiologist needs to be consulted for special instructions when a patient presents with a diagnosis of empyema and or pleural effusion

Setup:

Supine, AP Scout from above the diaphragm through the costophrenic angles

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 pt's weight		
<35 lbs	**20ml @1.5ml/ sec**	**15 sec delay**
36-55 lbs	**40ml @ 2.0 ml/sec**	**20 sec delay**
>56 lbs	**50ml @ 2.0 ml/sec**	**25 sec delay**

PACS Series:

- Topogram
- 3x3 Soft Tissue
- 3x3 Lung
- 3x3 Soft Tissue Coronal
- 3x3 Soft Tissue Sagittal
- Dose Report/ Protocol Page

Back to Pedi Body Protocol Page

PEDI CHEST/ABD/PELVIS- Revised08/06/2025

GE OPTIMA

Acquisition Parameters

Scan Type	Helical
Pitch and Speed (mm/rot)	0.969:1 (19.38)
Detector Coverage	20 mm
Thick	2.5
Speed	0.5
Noise index	18

PT body size	13-31.4 lbs	31.5-40.4 lbs	40.5-69.4 lbs	69.5-121 lbs
Scan FOV	Sm. Body	Sm. Body	Sm. Body	Lg. Body
Smart mA Range	50-150	50-200	50-225	50-225
kVp	80	80	100	100

Reconstruction Parameters

Recon 1 Soft Tissue	
Algorithm	Standard
ASIR	40
Recon Type	Full
Slice Thickness	2.5
Increment	2.5

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

Recon 2 Lung	
Algorithm	Lung
ASIR	none
Recon Type	Full
Slice Thickness	2.5
Increment	2.5
Recon 3 (thins) for reformats	
Algorithm	Standard
ASIR	40
Recon Type	Full
Slice Thickness	1.25
Increment	0.625

Back to Pedi Body Protocol Page

PEDI ABDOMEN PELVIS- Revised-08/06/2025

GE OPTIMA

Acquisition Parameters

Scan Type	Helical
Pitch and Speed (mm/rot)	0.969:1 (19.38)
Detector Coverage	20 mm
Thick	2.5
Speed	0.5
Noise index	15.13

PT body size	13-31.4 lbs	31.5-69.4 lbs	69.5-121 lbs
Scan FOV	Sm. Body	Sm. Body	Lg. Body
Smart mA Range	50-200	50-225	50-225
kVp	80	100	120

Reconstruction Parameters

Recon 1 Soft Tissue	
Algorithm	Standard
ASIR	40
Recon Type	Full
Slice Thickness	2.5
Increment	2.5
Recon 2 (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 CHEST HI RES- Revised-08/06/2025

GE OPTIMA

CTDIvol: ~5-10mGy

Setup:

1. Supine, AP Scout from above apices through the adrenal glands

DFOV:

Appropriate for patients body habitus

Scan Parameters:

Supine:

1. Scan from above the apices through the adrenal glands

Dynamic Expiration:

1. These axial/sequential scans will be performed while the patient is actively breathing out
    - While in the supine position have the patient take in a full breath and slowly breathe out.
    - While the patient is breathing out 5 rapid sequential scans will be performed at the same table position. This will be done at three different levels.
2. There will be 5 sequential 2- 2.5 mm axial scans performed at three different levels
    - Upper Chest ~ midway between the carina and apices
    - Mid Chest at the level of the carina
    - Lower Chest~ midway between the carina and the costophrenic angles

Reconstruction:

1. Recon 1 is a Soft Tissue axial data set
2. Recon 2 is a Lung axial data set
3. MPR's should be reconstructed at 1mm x 5mm in a lung algorithm/kernel

PACS Series:

- Topogram Supine
- Mediastinum
- Lung
- Lung Coronal
- Lung Sagittal
- Dynamic Lung Expiration 1
- Dynamic Lung Expiration 2
- Dynamic Lung Expiration 3
- Patient Protocol/Dose Report

Back to Pedi Body Protocol Page

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

Acquisition Parameters

Scan Type	Helical
Pitch and Speed (mm/rot)	0.969:1 (19.38)
Detector Coverage	20 mm
Thick	2.5
Speed	0.5
Noise index	18

Sequential Expiration Acquisitions	
Scan Type	Axial
Rotation Time	0.5 s
Thick/Speed	1.25 1i
Slice Thickness	1.25
Rotation Length	Full
Auto mA	on
Smart mA Range	50-100
Noise Index	15
kVp	80
Interval	0.0 mm
Number of scans	4

PT body size	13-31.4 lbs	31.5-40.4 lbs	40.5-69.4 lbs	69.5-121 lbs
Scan FOV	Sm. Body	Sm. Body	Sm. Body	Lg. Body
Smart mA Range	50-150	50-200	50-225	50-225
kVp	80	80	100	100

Reconstruction Parameters

Recon 1 Soft Tissue	
Algorithm	Standard
ASIR	40
Recon Type	Full
Slice Thickness	2.5
Increment	2.5

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

Recon 2 Lung	
Algorithm	Lung
ASIR	none
Recon Type	Full
Slice Thickness	1.25
Increment	5.0
Recon 3 (thins) for reformats	
Algorithm	Lung
ASIR	none
Recon Type	Full
Slice Thickness	1.25
Increment	0.625

Back to Pedi Body Protocol Page

PEDI CHEST PECTUS EXCAVATUM- Revised-08/06/2025GE OPTIMA

CTDIvol: ~5-10mGy

Setup:
Supine, AP Scout from above the apices through the costrophrenic angles

DFOV:
Appropriate for patients body habitus

Scan Parameters:
Acquire images during full inspiration from above the apices through the costrophrenic angles

PACS Series:

- Topogram
- 2.5 x 2.5 Soft Tissue
- 2.5 x 2.5 Lung
- 2.5 x 2.5 Bone
- 2.5 x 2.5 Soft Tissue Coronal
- 2.5 x 2.5 Soft Tissue Sagittal
- 2.5 x 2.5 Bone Coronal
- 2.5 x 2.5 Bone Sagittal
- Dose Report/ Protocol Page

Back to Pedi Body Protocol Page

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

PEDI FOREIGN BODY AIRWAY WITHOUT CONTRAST- Revised-08/06/2025

GE OPTIMA

CTDIvol: ~5-10 mGy

· Pediatric Radiologist needs to be consulted for special instructions to pick from the 3 options for scan field of view

Scan FOV Options:

7. Neck to EG Junction=Hard palate to just below hemidiaphragms OR
8. Neck to main bronchi=Hard palate to below main stem bronchi OR
   Scan should end above lung bases OR
9. Thoracic inlet to EG junction=Thoracic inlet to just below hemidiaphragms

Setup:

Supine, AP Scout from hard palate to base of lungs on inspiration

PACS Series:

- Topograms AP/LAT
- 5x5 Soft Tissue Axials
- 3x2 Sagittal and coronals
- 3x3 Axial lung
- 10x2 Axial lung MIP
- Dose Report/ Protocol Page

Exam Ordered: CT Foreign Body-Airway or Esophagus, though may still be ordered as CT chest. Look for comments and dx; FB or Foreign body. Be aware some ENT md may put in comments “dynamic airway”, which is incorrect. CT does not perform dynamic airway for FB.

Contrast: Default is no oral and no IV contrast. Oral contrast may be protocolled at discretion of radiologist. If protocolled with IV contrast, convert to contrast enhanced CT Chest.

Back to Pedi Body Protocol Page

Acquisition Parameters

Scan Type	Spiral
Pitch	1.3
Detector Configuration	32 x 1.2
Slice Thickness	5.0
Rotation Time	0.6
Care Dose	on
Quality Ref mAs	65
kVp	80

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	5.0 x 5.0
Recon 2 Lung	
Kernel	I50s Medium Sharp
SAFIRE	3
Window	Lung
Slice Thickness	3.0 x 3.0
Recon 3 Coronal	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	3.0 x 2.0
Recon 4 Sagittal	
Kernel	I31s Medium smooth +

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

SAFIRE	3
Window	Mediastinum
Slice Thickness	3.0 x 2.0
Recon 5 Reformat	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	2.0 x 1.0
Recon 5 Lung MIP	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	10.0 x 2.0

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

PEDI CHEST- Revised-08/06/2025

SIEMENS DEFINITION 40

CTDIvol: ~5-10 mGy

· Pediatric Radiologist needs to be consulted for special instructions when a patient presents with a diagnosis of empyema and or pleural effusion

Setup:

Supine, AP Scout from above the diaphragm through the costophrenic angles

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 pt's weight		
<35 lbs	**20ml @1.5ml/ sec**	**15 sec delay**
36-55 lbs	**40ml @ 2.0 ml/sec**	**20 sec delay**
>56 lbs	**50ml @ 2.0 ml/sec**	**25 sec delay**

PACS Series:

- Topogram
- 3x3 Soft Tissue
- 3x3 Lung
- 3x3 Soft Tissue Coronal
- 3x3 Soft Tissue Sagittal
- Dose Report/ Protocol Page

Back to Pedi Body Protocol Page

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

PEDI CHEST- Revised-9/14/2018

SIEMENS DEFINITION 40

Acquisition Parameters

Scan Type	Spiral
Pitch	1.2
Detector Configuration	16 x 1.2
Slice Thickness	3.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	50
Care kV	on
kVp	120
Slider Position	7

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 2 Lung	
Kernel	B70f Very Sharp
SAFIRE	none
Window	Lung
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	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 4 Sagittal	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 5 Reformat	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	1.5 x 0.65
Recon 6 Lung MIP	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	Lung
Slice Thickness	10.0 x 7.0

Back to Pedi Body Protocol Page

PEDI CHEST/ABD/PELVIS- Revised-08/06/2025

SIEMENS DEFINITION 40

Acquisition Parameters

Scan Type	Spiral
Pitch	1.2
Detector Configuration	16 x 1.2
Slice Thickness	3.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	80
Care kV	on
kVp	120
Slider Position	7

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 2 Lung	
Kernel	B70f Very Sharp
SAFIRE	none
Window	Lung
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	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 4 Sagittal	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 5 Reformat	
Kernel	I41f Medium
SAFIRE	2
Window	Abdomen
Slice Thickness	1.5 x 0.65
Recon 6 Lung MIP	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	Lung
Slice Thickness	10.0 x 7.0

Back to Pedi Body Protocol Page

PEDI ABDOMEN PELVIS- Revised-08/06/2025

SIEMENS DEFINITION 40

Acquisition Parameters

Scan Type	Spiral
Pitch	1.2
Detector Configuration	16 x 1.2
Slice Thickness	3.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	80
Care kV	on
kVp	120
Slider Position	7

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	Abdomen
Slice Thickness	3.0 x 3.0
Recon 3 Coronal	
Kernel	I30f Medium Smooth
SAFIRE	2
Window	Abdomen
Slice Thickness	3.0 x 3.0
Recon 4 Sagittal	

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

Kernel	I30f Medium Smooth
SAFIRE	2
Window	Abdomen
Slice Thickness	3.0 x 3.0

Back to Pedi Body Protocol Page

PEDI HI-RES CHEST- Revised-08/06/20258

SIEMENS DEFINITION 40

Setup:

1. Supine, AP Scout from above apices through the adrenal glands

DFOV:

Appropriate for patients body habitus

Scan Parameters:

Supine:

1. Scan from above the apices through the adrenal glands

Dynamic Expiration:

1. These axial/sequential scans will be performed while the patient is actively breathing out
    - While in the supine position have the patient take in a full breath and slowly breathe out.
    - While the patient is breathing out 5 rapid sequential scans will be performed at the same table position. This will be done at three different levels.
2. There will be 5 sequential 2- 2.5 mm axial scans performed at three different levels
    - Upper Chest ~ midway between the carina and apices
    - Mid Chest at the level of the carina
    - Lower Chest~ midway between the carina and the costophrenic angles

Reconstruction:

1. Recon 1 is a Soft Tissue axial data set
2. Recon 2 is a Lung axial data set
3. MPR's should be reconstructed at 1mm x 5mm in a lung algorithm/kernel

PACS Series:

- Topogram Supine
- Mediastinum
- Lung
- Lung Coronal
- Lung Sagittal
- Dynamic Lung Expiration 1
- Dynamic Lung Expiration 2
- Dynamic Lung Expiration 3
- Patient Protocol/Dose Report

Back to Pedi Body Protocol Page

PEDI HI-RES CHEST- Revised-08/06/2025

SIEMENS DEFINITION 40

Acquisition Parameters

Supine Spiral Acquisition	
Scan Type	Spiral
Pitch	1.2
Detector Configuration	40 x 0.6
Slice Thickness	3.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	50
Care kV on	120
Slider Position	3

Sequential Expiration Acquisitions	
Scan Type	Sequential
Scan Time	Full 0.33s
Detector Configuration	2 x 1.0
Slice Thickness	2.0
Cycle Time	0.66s
Care Dose	on
Quality Ref mAS	50
Care kV on	120
Slider Position	3
Feed	0 mm
Number of scans	5

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I31f Medium Smooth
SAFIRE	2
Window	Mediastinum
Slice Thickness	3.0 x 3.0
Recon 2 Lung	
Kernel	I70f Very Sharp ASA
SAFIRE	2
Window	Lung
Slice Thickness	1.0 x 5.0
Recon 3 Coronal	

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

Kernel	I70f Medium Sharp ASA
SAFIRE	2
Window	Lung
Slice Thickness	1.0 x 5.0
Recon 4 Sagittal	
Kernel	I70f Medium Sharp ASA
SAFIRE	2
Window	Lung
Slice Thickness	1.0 x 5.0
Recon 5 Reformat	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	1.5 x 0.6

Expiration	
Kernel	B80f ultra sharp
SAFIRE	None
Window	Lung
Slice Thickness	2.0 mm

Back to Pedi Body Protocol Page

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

PEDI CHEST PECTUS EXCAVATUM- Revised-08/06/2025

SIEMENS DEFINITION 40

CTDIvol: ~5-10mGy

Setup:
Supine, AP Scout from above the apices through the costrophrenic angles

DFOV:
Appropriate for patients body habitus

Scan Parameters:
Acquire images during full inspiration from above the apices through the costrophrenic angles

PACS Series:

- Topogram
- 2x2 Soft Tissue
- 2x2 Lung
- 2x2 Bone
- 2x2 Soft Tissue Coronal
- 2x2 Soft Tissue Sagittal
- 2x2 Bone Coronal
- 2x2 Bone Sagittal
- Dose Report/ Protocol Page

Back to Pedi Body Protocol Page

PEDI CHEST PECTUS EXCAVATUM- Revised-08/06/2025

SIEMENS DEFINITION 40

Acquisition Parameters

Scan Type	Spiral
Pitch	1.2
Detector Configuration	16 x 1.2
Slice Thickness	2.0
Rotation Time	0.5
Care Dose	on
Quality Ref mAs	50
Care kV	on
kVp	120
Slider Position	7

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	2.0 x 2.0
Recon 2 Lung	
Kernel	B70f Very Sharp
SAFIRE	none
Window	Lung
Slice Thickness	2.0 x 2.0

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

Recon 3 Coronal	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	2.0 x 2.0
Recon 4 Sagittal	
Kernel	I41f Medium
SAFIRE	2
Window	Mediastinum
Slice Thickness	2.0 x 2.0
Recon 5 Reformat	
Kernel	B41f Medium
SAFIRE	0
Window	Osteo
Slice Thickness	1.5 x 0.7
Recon 6-8 Bone axial/cor/sag	
Kernel	B70f Very Sharp
SAFIRE	0
Window	Osteo
Slice Thickness	2.0 x 2.0

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

PEDI FOREIGN BODY AIRWAY WITHOUT CONTRAST- Revised-08/06/2025

SIEMENS DEFINITION 40

CTDIvol: ~5-10 mGy

· Pediatric Radiologist needs to be consulted for special instructions to pick from the 3 options for scan field of view

Scan FOV Options:

10. Neck to EG Junction=Hard palate to just below hemidiaphragms OR
11. Neck to main bronchi=Hard palate to below main stem bronchi OR
    Scan should end above lung bases OR
12. Thoracic inlet to EG junction=Thoracic inlet to just below hemidiaphragms

Setup:

Supine, AP Scout from hard palate to base of lungs on inspiration

PACS Series:

- Topograms AP/LAT
- 5x5 Soft Tissue Axials
- 3x2 Sagittal and coronals
- 3x3 Axial lung
- 10x2 Axial lung MIP
- Dose Report/ Protocol Page

Exam Ordered: CT Foreign Body-Airway or Esophagus, though may still be ordered as CT chest. Look for comments and dx; FB or Foreign body. Be aware some ENT md may put in comments “dynamic airway”, which is incorrect. CT does not perform dynamic airway for FB.

Contrast: Default is no oral and no IV contrast. Oral contrast may be protocolled at discretion of radiologist. If protocolled with IV contrast, convert to contrast enhanced CT Chest.

Back to Pedi Body Protocol Page

Acquisition Parameters

Scan Type	Spiral
Pitch	1.3
Detector Configuration	32 x 1.2
Slice Thickness	5.0
Rotation Time	0.6
Care Dose	on
Quality Ref mAs	65
kVp	80

Reconstruction Parameters

Recon 1 Soft Tissue	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	5.0 x 5.0
Recon 2 Lung	
Kernel	I50s Medium Sharp
SAFIRE	3
Window	Lung
Slice Thickness	3.0 x 3.0
Recon 3 Coronal	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	3.0 x 2.0
Recon 4 Sagittal	
Kernel	I31s Medium smooth +

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

SAFIRE	3
Window	Mediastinum
Slice Thickness	3.0 x 2.0
Recon 5 Reformat	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	2.0 x 1.0
Recon 5 Lung MIP	
Kernel	I31s Medium smooth +
SAFIRE	3
Window	Mediastinum
Slice Thickness	10.0 x 2.0

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

Back to Pedi Body Protocol Page

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