# PEDIATRIC CHEST 3T

### INSTRUCTIONS AND PATIENT PREPARATION

| | |
|---|---|
| **Anatomical Region** | Chest |
| **Field Strength** | 3.0T |
| **Coil** | See the Coil Configuration row in the first parameters table below (varies by sequence). |
| **Position & Landmark** | Feet first, supine. Landmark: center of the coil in use (typically central to the ROI). |
| **Contrast** | Weight-based gadolinium contrast per your institution's protocol, supervising radiologist, and the agent's FDA prescribing information. Postcontrast sequences are marked **+C**. |

### PATIENT POSITION

| Scan Description | 3Plane Loc | Ax T2 fat | Sag T2 fat | Cor T2 fat | Ax T1 FSE | Cor T1 FSE | Pre T1 Cor | +c T1 Cor | +c T1 Ax |
|---|---|---|---|---|---|---|---|---|---|
| **Coil Configuration** | GE40chGEMPA, GE16chTDIAA | GE40chGEMPA, GE16chTDIAA | GE40chGEMPA, GE16chTDIAA | GE40chGEMPA, GE16chTDIAA | GE40chGEMPA, GE16chTDIAA | GE40chGEMPA, GE16chTDIAA | GE40chGEMPA, GE16chTDIAA | GE40chGEMPA, GE16chTDIAA | GE40chGEMPA, GE16chTDIAA |
| **Plane** | 3-PLANE | AXIAL | SAGITTAL | CORONAL | AXIAL | CORONAL | CORONAL | CORONAL | AXIAL |

### IMAGING PARAMETERS

| Scan Description | 3Plane Loc | Ax T2 fat | Sag T2 fat | Cor T2 fat | Ax T1 FSE | Cor T1 FSE | Pre T1 Cor | +c T1 Cor | +c T1 Ax |
|---|---|---|---|---|---|---|---|---|---|
| **Imaging Mode** | 2D | 2D | 2D | 2D | 2D | 2D | 3D | 3D | 3D |
| **Imaging Options** | Seq, EDR, Fast, SS, ARC | EDR, TRF, Fast, RT, ARC | FC, EDR, TRF, Fast, RT, FR, ARC | EDR, TRF, Fast, RT, FR, ARC | EDR, TRF, Fast, ARC | EDR, TRF, Fast, ARC | EDR, Fast, ARC, Flex | EDR, Fast, ARC, Flex | EDR, Fast, ZIP512, ARC, Flex |
| **Pulse Sequence** | Spin Echo | FSE-XL | FSE-XL | FSE-XL | FSE-XL | FSE-XL | LAVA | LAVA | LAVA |
| **ARC Phase** | 2 | 2 | 2 | 2 | 1.5 | 2 | 2 | 2 | 2 |
| **ARC Slice** | — | — | — | — | — | — | 2 | 2 | 2 |

### IMAGE RECON

| Scan Description | 3Plane Loc | Ax T2 fat | Sag T2 fat | Cor T2 fat | Ax T1 FSE | Cor T1 FSE | Pre T1 Cor | +c T1 Cor | +c T1 Ax |
|---|---|---|---|---|---|---|---|---|---|
| **Recon DL Strength** | Off | Medium | Medium | Medium | Medium | Medium | Off | Off | Off |
| **Intensity Correction** | NONE | PURE | SCENIC | SCENIC | SCENIC | SCENIC | PURE | PURE | PURE |
| **Intensity Filter** | None | None | None | None | None | None | None | None | None |
| **Save Original** | Off | Off | Off | Off | Off | Off | Off | Off | Off |

### SCAN RANGE

| Scan Description | 3Plane Loc | Ax T2 fat | Sag T2 fat | Cor T2 fat | Ax T1 FSE | Cor T1 FSE | Pre T1 Cor | +c T1 Cor | +c T1 Ax |
|---|---|---|---|---|---|---|---|---|---|
| **FOV** | 36 | 26 | 28 | 28 | 26 | 28 | 26 | 26 | 24 |
| **Slice Thickness** | 6 | 4 | 4 | 4 | 4 | 4 | 1.5 | 1.5 | 1.2 |
| **Slice Spacing** | 0 | 0.5 | 1 | 1 | 0.5 | 1 | — | — | — |
| **Overlap Locations** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **No Phase Wrap** | 1 | 1 | 1 | 1.5 | 1 | 1.5 | 1 | 1 | 1 |
| **Number of Slices** | — | — | — | — | 10 | 18 | — | — | — |
| **Slices per Slab** | — | — | — | — | — | — | 136 | 136 | 120 |
| **No Slab Wrap** | — | — | — | — | — | — | 1.06 | 1.06 | 1.07 |
| **Slice Resolution(%)** | — | — | — | — | — | — | 50 | 50 | 50 |

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**MR Gadopiclenol (VUEWAY®) Protocol for GE MRI Scanners**
**Pediatric**

IMAGING FORUMS, INC.

**ACQUISITION TIMING**

| Scan Description | 3Plane Loc | Ax T2 fat | Sag T2 fat | Cor T2 fat | Ax T1 FSE | Cor T1 FSE | Pre T1 Cor | +c T1 Cor | +c T1 Ax |
|---|---|---|---|---|---|---|---|---|---|
| **Acq Voxel Size** | 0.9 X 2.3 X 6.0 | 0.7 X 1.0 X 4.0 | 0.9 X 1.3 X 4.0 | 0.9 X 1.1 X 4.0 | 0.9 X 1.0 X 4.0 | 1.0 X 1.5 X 4.0 | 0.9 X 1.2 X 3.0 | 0.9 X 1.2 X 3.0 | 1.1 X 1.1 X 2.4 |
| **Freq** | 384 | 384 | 320 | 320 | 288 | 288 | 288 | 288 | 224 |
| **Phase** | 160 | 256 | 224 | 256 | 256 | 192 | 224 | 224 | 224 |
| **Freq DIR** | Unswap | R/L | S/I | S/I | R/L | S/I | S/I | S/I | R/L |
| **# of Acq. Before Pause** | 0 | — | — | — | — | 1 | — | — | — |
| **Phase FOV** | 1 | 0.8 | 0.8 | 1 | 0.7 | 1 | 0.9 | 0.9 | 0.8 |
| **Auto Shim** | Auto | Auto | Auto | Auto | Auto | Auto | Auto | Auto | Auto |
| **Phase Correct** | Off | Off | Off | Off | Off | Off | Off | Off | Off |
| **RF Drive Mode** | Quadrature (CP) | Preset | Quadrature (CP) | Quadrature (CP) | Preset | Preset | Preset | Preset | Preset |
| **Excitation Mode** | Selective | Selective | Selective | Selective | Selective | Selective | Selective | Selective | Selective |
| **NEX** | — | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 |
| **Fat Shift DIR** | — | Normal (L) | Normal (S) | Normal (I) | Normal (L) | Normal (I) | — | — | — |
| **Flow Comp Direction** | — | — | Freq | — | — | — | — | — | — |

**SCAN TIMING**

| Scan Description | 3Plane Loc | Ax T2 fat | Sag T2 fat | Cor T2 fat | Ax T1 FSE | Cor T1 FSE | Pre T1 Cor | +c T1 Cor | +c T1 Ax |
|---|---|---|---|---|---|---|---|---|---|
| **TE** | 80 | 90 | 90 | 90 | 18 | 18 | Minimum | Minimum | Minimum |
| **Number of Echoes** | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| **TR** | Minimum | — | — | — | 450 | 450 | — | — | — |
| **Receiver Bandwidth** | 83.33 | 62.5 | 62.5 | 62.5 | 62.5 | 62.5 | 142.86 | 142.86 | 142.86 |
| **Flip Angle** | — | 111 | 111 | 111 | 111 | 111 | 15 | 15 | 15 |
| **Echo Train Length** | — | 19 | 21 | 21 | 3 | 4 | — | — | — |

**CONTRAST**

| Scan Description | 3Plane Loc | Ax T2 fat | Sag T2 fat | Cor T2 fat | Ax T1 FSE | Cor T1 FSE | Pre T1 Cor | +c T1 Cor | +c T1 Ax |
|---|---|---|---|---|---|---|---|---|---|
| **Contrast Yes/No** | No | No | No | No | No | No | No | +C | +C |

**OTHERS**

| Scan Description | 3Plane Loc | Ax T2 fat | Sag T2 fat | Cor T2 fat | Ax T1 FSE | Cor T1 FSE | Pre T1 Cor | +c T1 Cor | +c T1 Ax |
|---|---|---|---|---|---|---|---|---|---|
| **Anatomical Region** | Chest | Chest | Chest | Chest | Chest | Chest | Chest | Chest | Chest |
| **3D Geometry Correction** | — | — | — | — | — | — | On | On | Off |

**SATURATION**

| Scan Description | 3Plane Loc | Ax T2 fat | Sag T2 fat | Cor T2 fat | Ax T1 FSE | Cor T1 FSE | Pre T1 Cor | +c T1 Cor | +c T1 Ax |
|---|---|---|---|---|---|---|---|---|---|
| **Fat/Water Saturation** | — | Fat | Fat | Fat | — | — | — | — | — |

**GATING / TRIGGER**

| Scan Description | 3Plane Loc | Ax T2 fat | Sag T2 fat | Cor T2 fat | Ax T1 FSE | Cor T1 FSE | Pre T1 Cor | +c T1 Cor | +c T1 Ax |
|---|---|---|---|---|---|---|---|---|---|
| **Resp. Trigger Point** | — | 30 | 30 | 30 | — | — | — | — | — |
| **Resp. Trigger Window** | — | 30 | 30 | 30 | — | — | — | — | — |
| **Resp. Inter-Seq Delay** | — | Minimum | Minimum | Minimum | — | — | — | — | — |

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