Gundersen Health System

# C-Spine

Siemens Flash

| Application Examples: fracture, post myelogram |
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|---|---|
| Oral Contrast | No |
| IV Contrast / Volume | 120 ml Omnipaque 300 |
| Injection Rate | 2.5 ml/sec |
| Scan Delay (If IV contrast used) | 60 seconds |

*Technical Factors*

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|---|---|
| Detector Collimator | Acq 128 x 0.6 mm |
| Care kV | On / 120 kV |
| Care Dose 4D | On / 210 mAs |
| Rotation Time (seconds) | 1.0 |
| Pitch | 0.8 |
| Typical CTDIvol | 14.18mGy± 50% |

Topogram: AP & Lateral 256 mm

| C Spine | Recon Type | Width/Increment | Algorithm | Safire | Window | FoV | Series Description | Networking | Post Processing |
|---|---|---|---|---|---|---|---|---|---|
| **Recon 1** | Axial | 1 x 1 | I70h | 1 | Bone | 120 | AXIAL BONE | PACS | None |
| **Recon 2** | Axial | 1 x 1 | I30s | 1 | Spine | 120 | AXIAL STND | PACS | None |
| **Recon 3** | 3D: AXIAL | 1 x 1 | I70h | 1 | Bone | 120 | AXIAL MPR | PACS | Axial MPR |
| **Recon 4** | 3D:COR | 2 x 2 | I70h | 1 | Bone | - | COR | PACS | Coronal MPR |
| **Recon 5** | 3D:SAG | 2 x 2 | I70h | 1 | Bone | - | SAG | PACS | Sagittal MPR |
| **Recon 6** | 3D:SAG | 2 x 2 | I30h | 1 | Spine | - | SAG STND | PACS | Sagittal MPR |
| **Recon 7** | Axial | 0.6 x 0.6 | I26s | 1 | Bone | | AXIAL 0.6 STND | TeraRecon | None |

This protocol is used for cervical spines studies.

**Myelogram Instructions:** Have patient slowly roll two times, pausing for 30 seconds at each 90 degree turn so the contrast has more time to stop layering and mix up.

**Patient Position:** Patient lying in supine position, hyperextend neck slightly so that the IOML is perpendicular to table, secure head well. Remove dental work if possible.

**Patient Instructions**: Do not swallow during scan.

**Scan Instructions:** Take AP and lateral topograms to include enough vertebral bodies for counting levels.

**Scan Range:** Scan area of interest. If entire cervical spine requested, scan cervical spine and ENTIRETY of T1.

**Recons and Reformations:** If patient condition does not allow ideal positioning, create true axial MPR data set. This protocol utilizes Fast Spine software which does the MPRs in 3 planes after the technologist checks and approves the angles for accuracy. Sagittal Bone and STND should be same alignment and FoV.

**3D:** Upon request. See post processing protocol.