NORMAL ANATOMY OF THE SPINAL CANAL AND ITS CONTENTS

- Prevertebral subligamentous space
- Anterior longitudinal ligament
- Anterior epidural space
- Lumbar vertebral bodies
- Posterior longitudinal ligament
- Retrovertebral subligamentous space
- Thecal sac
- Dura mater
- Spinal subarachnoid space
- Spinous processes
- Junction of halves of interspinous ligament with the ligamenta flava
- Erector spinae muscle tendons and deep fibers of the lumbosacral fascia
- Filum terminale
- Midline sacral spinous tubercles
- Posterior epidural fat
- Spinous processes
- Junction of halves of interspinous ligament with the ligamenta flava

Sagittal T1W image
On sagittal images the normal neural foramen has the appearance of a vertical oval. What we see in the superior portion of the neural foramen is the large dorsal root ganglion.
Walls of the spinal canal

1.- ANTERIOR wall

2.- POSTERIOR wall

3.- LATERAL wall

Walls of the neural foramen
**Spinal canal content**

1. Origin
2. Discal
3. Pedicular
4. Foraminal (dorsal root ganglion)

**ANATOMIC “LEVELS” on the coronal and sagittal planes:**
- Suprapedicle level
- Pedicle level
- Infrapedicle level
- Disc level

**ANATOMIC “ZONES” within the spinal canal:**
- Central “zone”
- Subarticular “zone”
- Foraminal “zone”
- Lateral recess

**Axial section through the disc**
The spinal canal on axial sectional imaging...

1) Axial section through the pedicle

![Pedicle Axial Section](image1)

Axial CT image

2) Axial section through the disc

![Disc Axial Section](image2)

Axial CT images

* For purpose of simplifying we have considered the facet joint capsule as an indistinctive anatomic structure from the ligamentum flavum.
Normal intervertebral L4 - L5 disc space on sectional imaging...

Axial section through the superior portion of the L4 – L5 neural foramen

Vertebral body L4
Dorsal root ganglion L4
Lamina
Neural foramen
T2W image

Axial section through the inferior endplate of the L4 vertebral body

Lamina
inferior endplate L4
L4 nerve
Origin L5 Nerve root
T2W image

Axial section through the L4 – L5 disc

Disc L4 – L5
L4 nerve
Ligamentum flavum
Facet joint
interlaminar space
T2W image

Axial section through the L5 pedicle

Vertebral body L5
Pedicular segment L5 nerve root (lateral recess)
Facet joint
Pelvis
T2W image