Disc Nomenclature

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Nomenclature of disc pathology

Normal Disc
Anular tear - Disc herniation
Focal herniation - Broad based hernia - Bulging Disc
Disc Protrusion - Extrusion
Migration - Sequestration
Axial localisation of herniated discs

Normal Disc
Disc is normal in development and there are no signs of disease, trauma or aging.

Anular tear versus Disc herniation

Anular tear - Disc herniation
Anular tears are also called anular fissures and are separations between anular fibers, avulsion of fibers from their vertebral body insertions, or breaks through fibers involving one or many layers of the anular lamellae.
The terms 'tear' or 'fissure' does not imply that the lesion is consequent to trauma. In case of a traumatic event the term 'rupture' is appropriate.

Disc Herniation is displacement of disc material beyond the limits of the intervertebral disc space. A herniated disc can be contained (covered by outer anulus fibrosus) or uncontained.

Focal versus Broad based herniation

Focal herniation - Broad based hernia - Bulging Disc
Focal herniation is a herniated disc less than 90° of the disc circumference.

Broadbased herniation is a herniated disc in between 90°-180° of the disc circumference.

Bulging Disc is the presence of disc tissue 'circumferentially' (180°-360°) beyond the edges of the ring apophyses and is not considered a form of herniation.
Disc Protrusion versus Extrusion

**Disc Protrusion - Extrusion**

**Protrusion** indicates that the distance between the edges of the disc herniation is less than the distance between the edges of the base.

**Extrusion** is present when the distance between the edges of the disc material is greater the distance at the base.

Migration and Sequestration

**Migration - Sequestration**

**Migration** indicates displacement of disc material away from the site of extrusion, regardless of whether sequestrated or not.

**Sequestration** is used to indicate that the displaced disc material has lost completely any continuity with the parent disc.

Axial localisation of herniated discs

**Central or medial** (orange). Since the PLL (posterior longitudinal ligament) is at its thickest in this region, the disc usually herniates slightly to the left or right of this central zone.

**Paramedian or lateral recess** (blue). Because the PLL is not as thick in this region, this is the number one region for disc herniations to occur in.

**Foraminal or subarticular** (red). It is rare for a disc to herniate into the intervertebral foramen. Only 5% to 10% of all disc herniation occur here or farther out. When herniations do occur in this zone, they are often very troublesome for the patient. This is because a super-delicate neural structure called the 'Dorsal Root Ganglion' (DRG) lives in this zone resulting in severe pain, sciatica and nerve cell damage.

**Extraforaminal or lateral** (green). Disc herniations in this region are uncommon.

References

1. [www.chirogeek.com](http://www.chirogeek.com)
   Website on disc pathology with excellent teaching and illustrations.
2. [ASNR spine nomenclature](http://www.asnr.org)