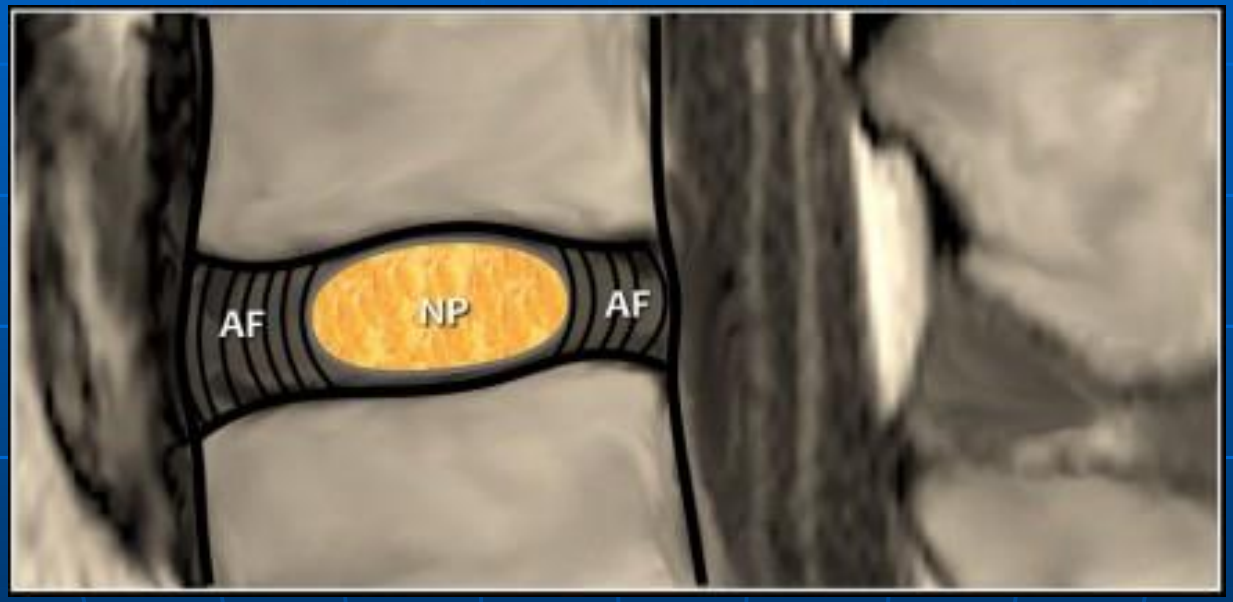
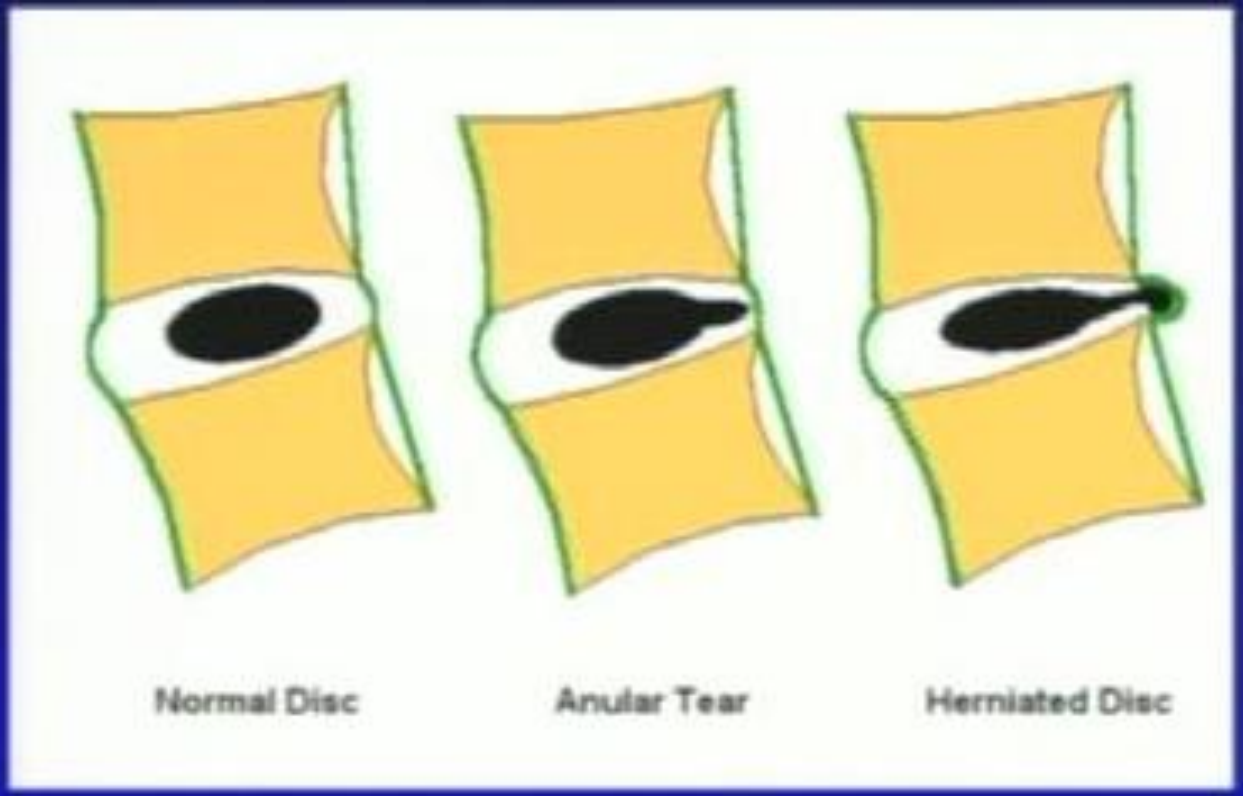
Disc Herniation



Soft central nucleus pulposus and strong annulus fibrosus.



- The term "tear" is used to refer to a localized radial, concentric, or horizontal disruption of the anulus **without** associated displacement of disc material beyond the limits of the intervertebral disc space.

Bulge - implies Symmetry and circumferential

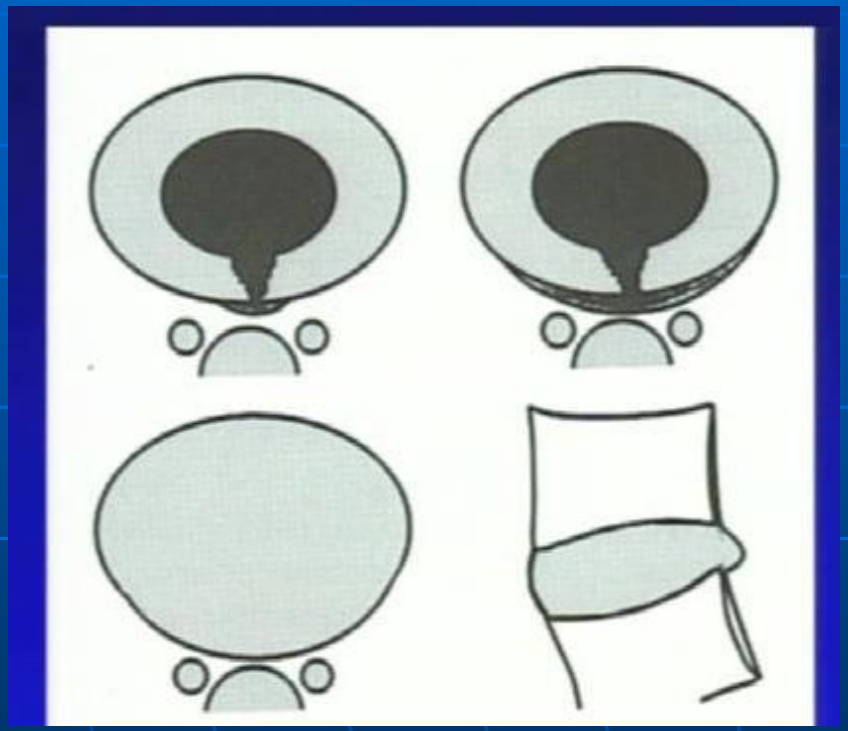
Bulging Disc

- Disc degeneration
- Normal variant (usually at L5/S1)
- Due to vertebral remodeling secondary to osteoporosis, trauma or other deformity
- Ligamentous laxity due to loading
- Partial volume averaging
- Illusion caused by disc herniation

Disc herniation

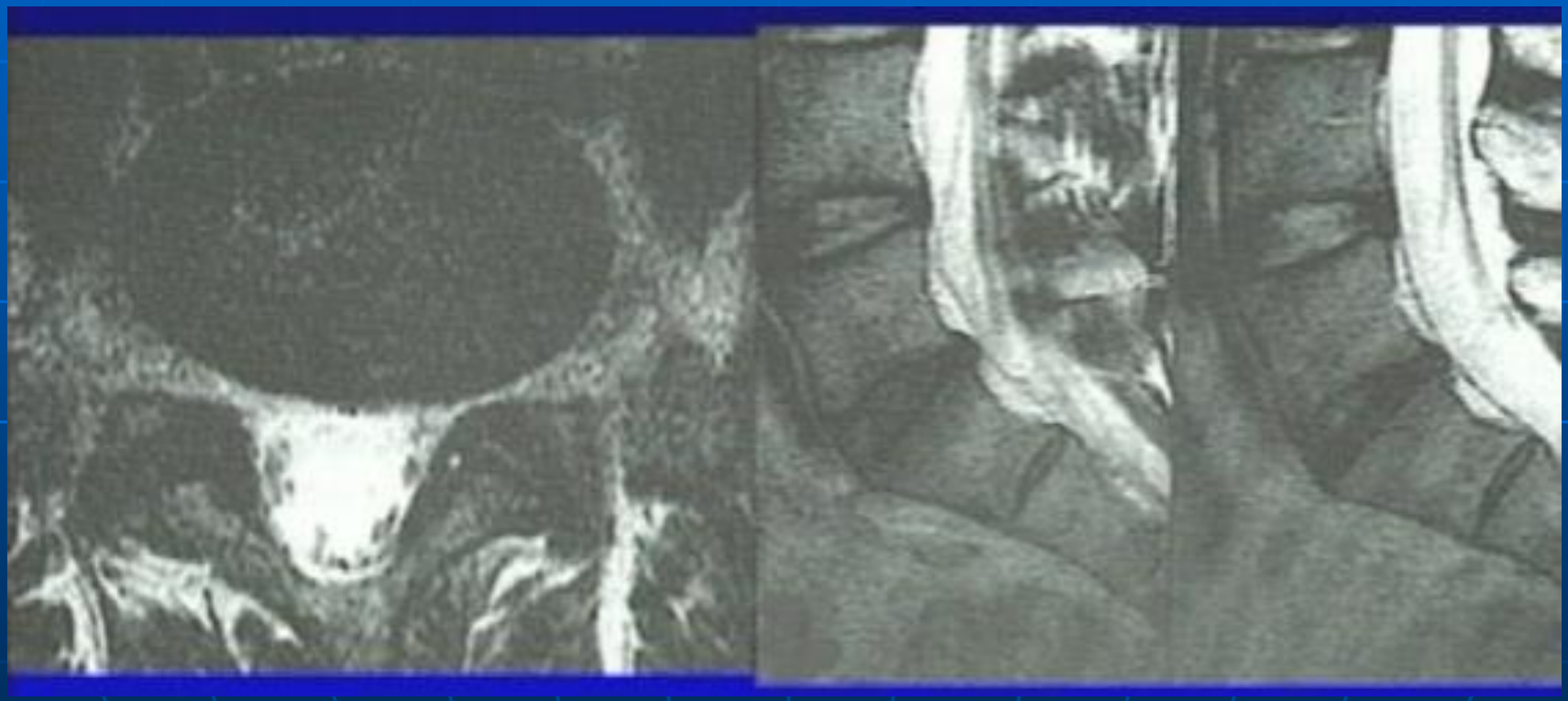
- Defined as a focal displacement of disc material (< 25% of the disc circumference) beyond the limits of the intervertebral disc space.
- A herniated disc can be contained (covered by outer annulus fibrosus) or uncontained.

Herniated Disc Mimics bulge

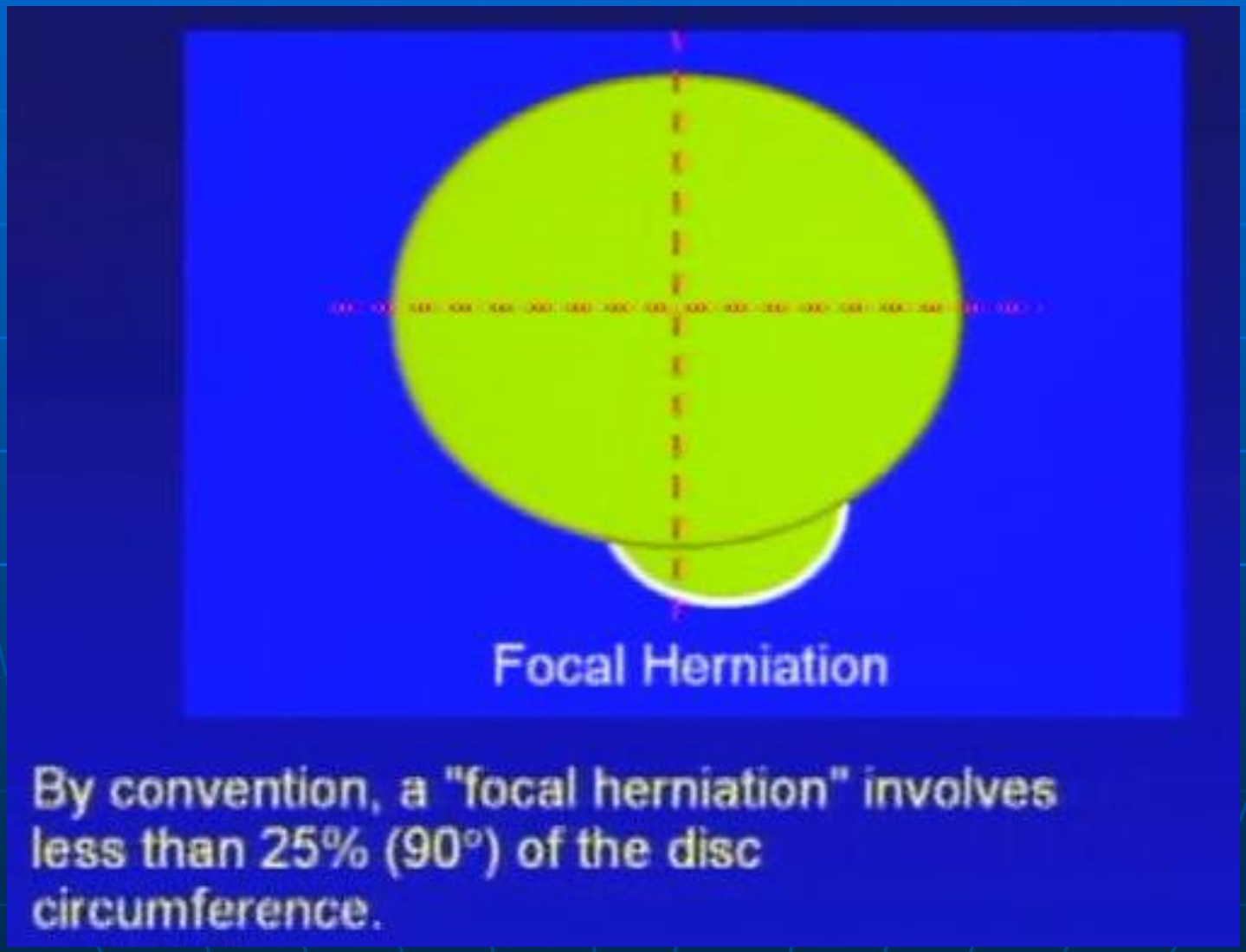


- Has broad base contour abnormality
- No bulge anteriorly

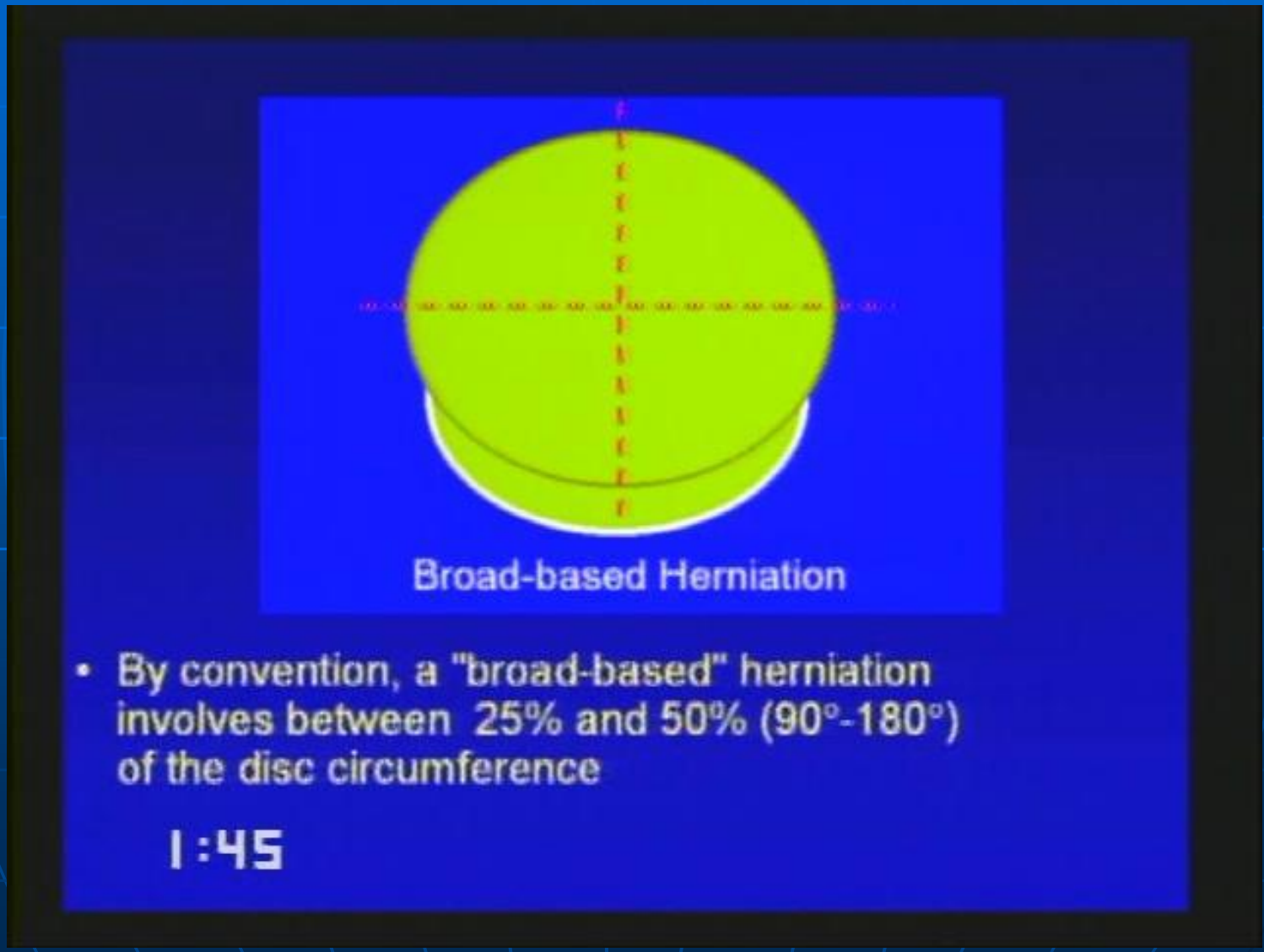
Example Herniated Disc

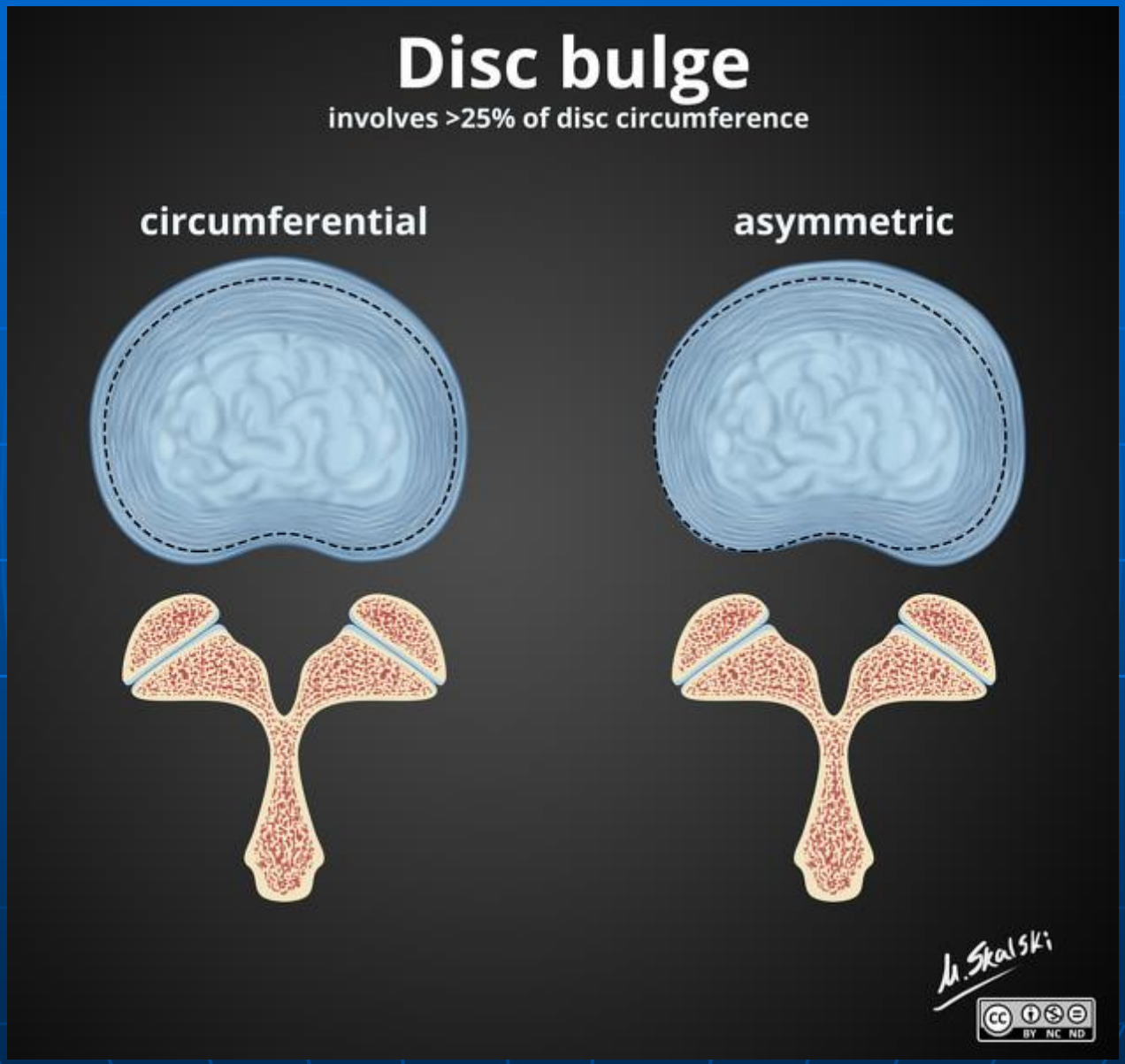


Focal Herniation



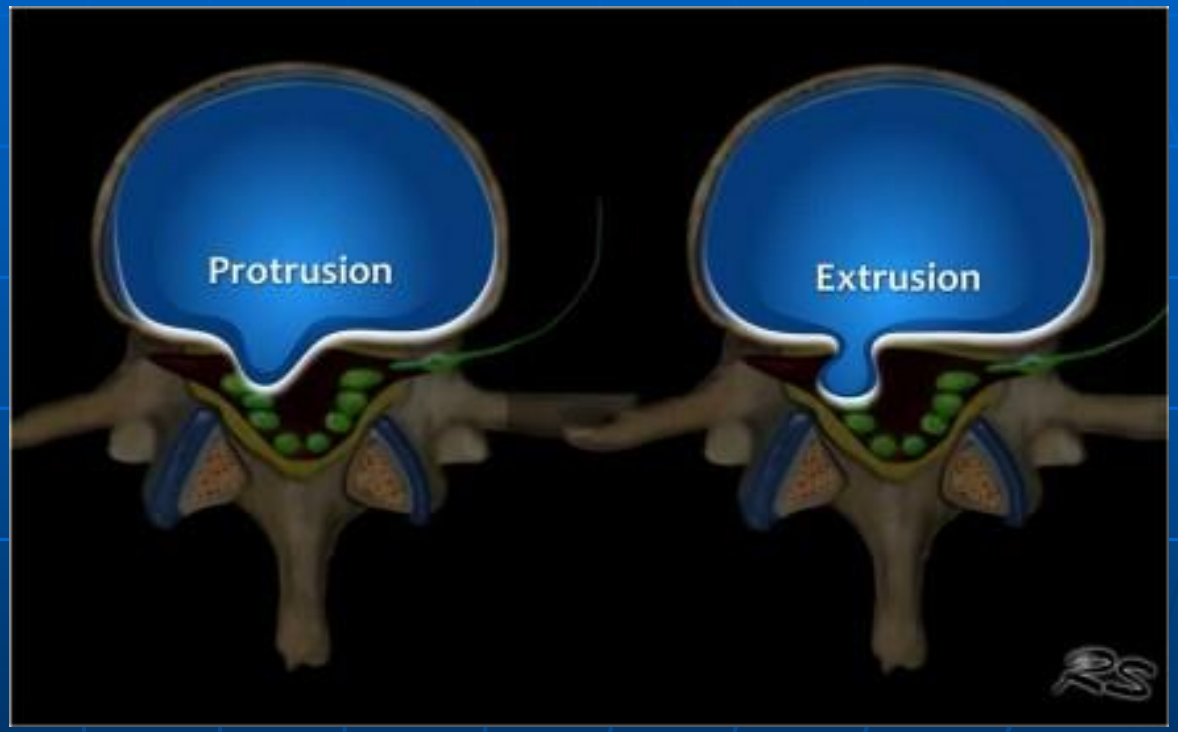
Broad Base Herniation




Disc bulge
involves >25% of disc circumference
circumferential
asymmetric
M. Skalski
BY NC ND

Protrusion vs. 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 than the distance at the base.
    Extrusion is associated with a defect in the annulus fibrosus and are usually noncontained.



Protrusion vs. Extrusion

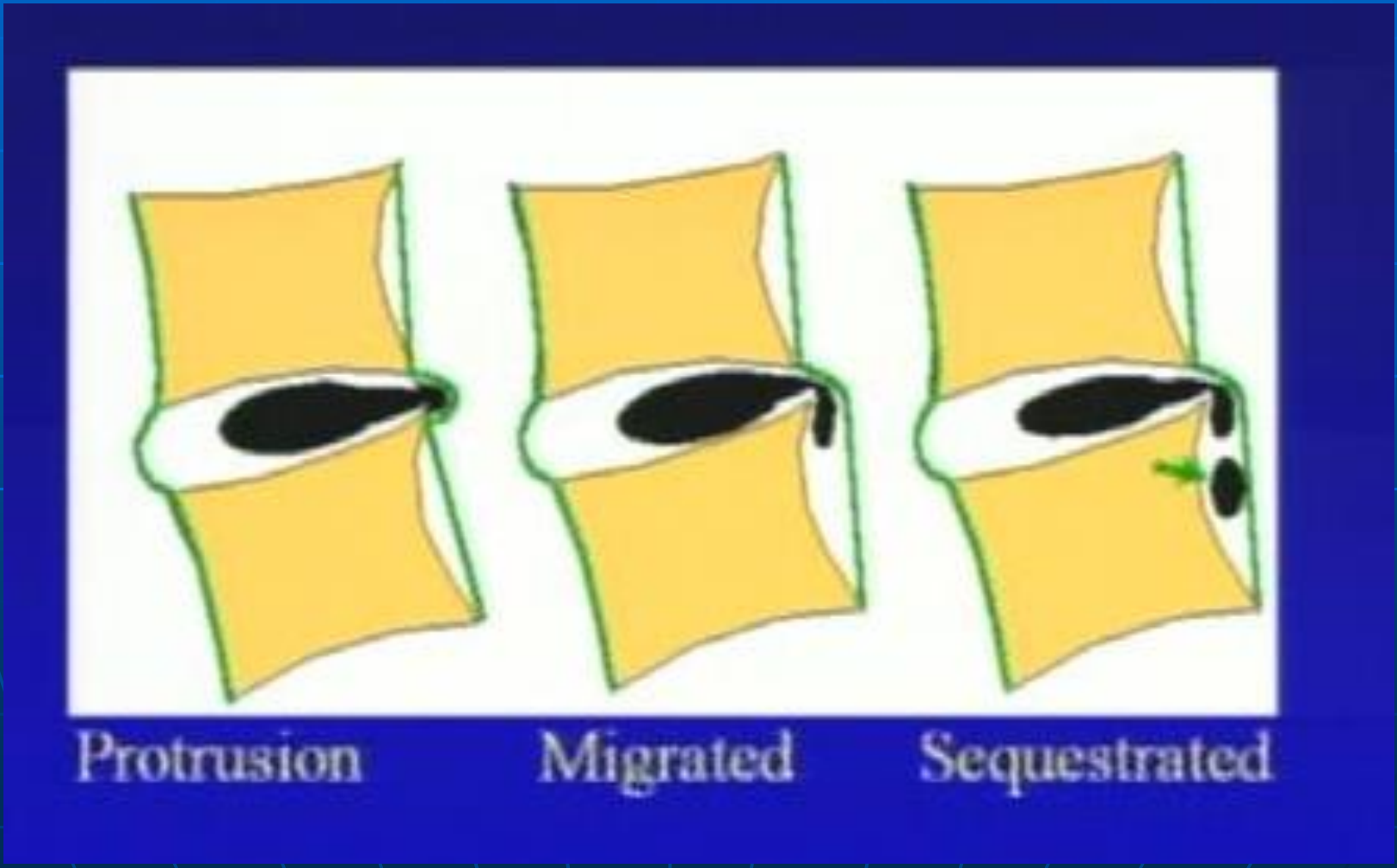
Protrusion vs. Extrusion

Extrusion:

- Herniated disc > base in any plane

Protrusion:

- Herniated disc < base in every plane-protrusion


Protrusion
Migrated
Sequestrated