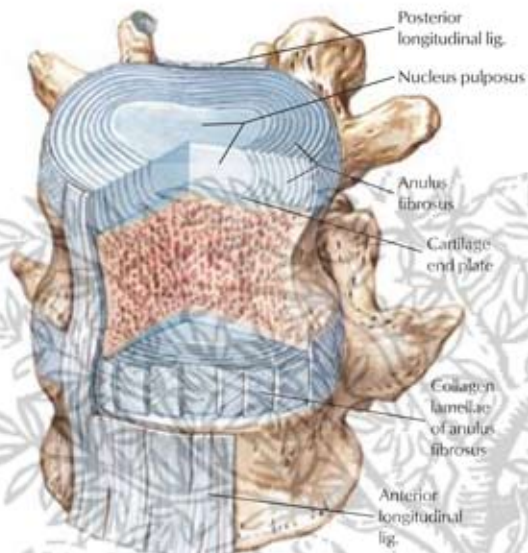
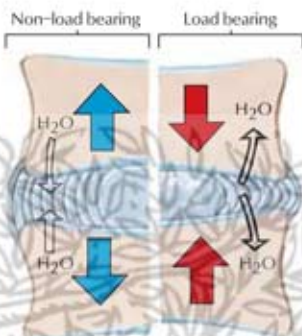


## Intervertebral disc



Intervertebral disc composed of central nuclear zone of collagen and hydrated proteoglycans surrounded by concentric lamellae of collagen fibers.

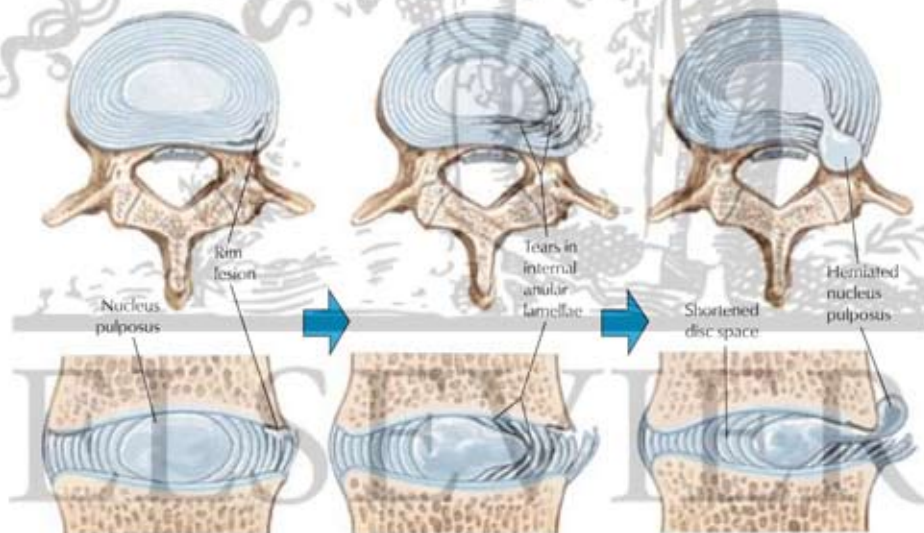
## Pump mechanism of disc nutrition



Movement-driven pump mechanism alternately compresses and relaxes pressure on disc, pumping water and waste products out and water and nutrients in.

*C. Machado*  
M.D.

## Disc rupture and nuclear herniation



Peripheral tear of anulus fibrosus and cartilage end plate (rim lesion) initiates sequence of events that weaken and tear internal anular lamellae, allowing extrusion and herniation of nucleus pulposus.