The softer nucleus pulposus is surrounded by a thick tough annulus fibrosus. The annulus weakens with age and causes it to rupture, usually posterolaterally, and the nucleus pulposus is squeezed out. Precipitating factors include bending and lifting which compress the anterior part of the disc and this pushes the nucleus pulposus posteriorly against the slightly thinner posterior wall of the annulus fibrosus. Because the nerve leaving at any lumbar disc space does so above the disc is not normally affected. It is the nerve that is emerging in the next space that is compressed as it passes posterior to the prolapsed disc.
Note: It is the next nerve down that is usually trapped, NOT the one emerging at the level of the prolapsed disc.

A posterolateral disc in the L4/5 space will predominantly affect the L5 root but may also affect the S1 root and this will lead to a weak or absent ankle jerk.

POSTEROLATERAL DISC PROLAPSE
The common fibular nerve winds around the neck of the fibula before dividing into its deep and superficial branches. Pressure here from too tight a plaster or trauma can lead to a foot drop and sensory changes in the skin of the lateral lower leg and foot as seen in a L4/5 disc lesion involving the L5 root.