

Benign Spine Disease

Spondylolisthesis

When one vertebra slips forward relative to the next vertebra below, this is called spondylolisthesis (Figure 4).

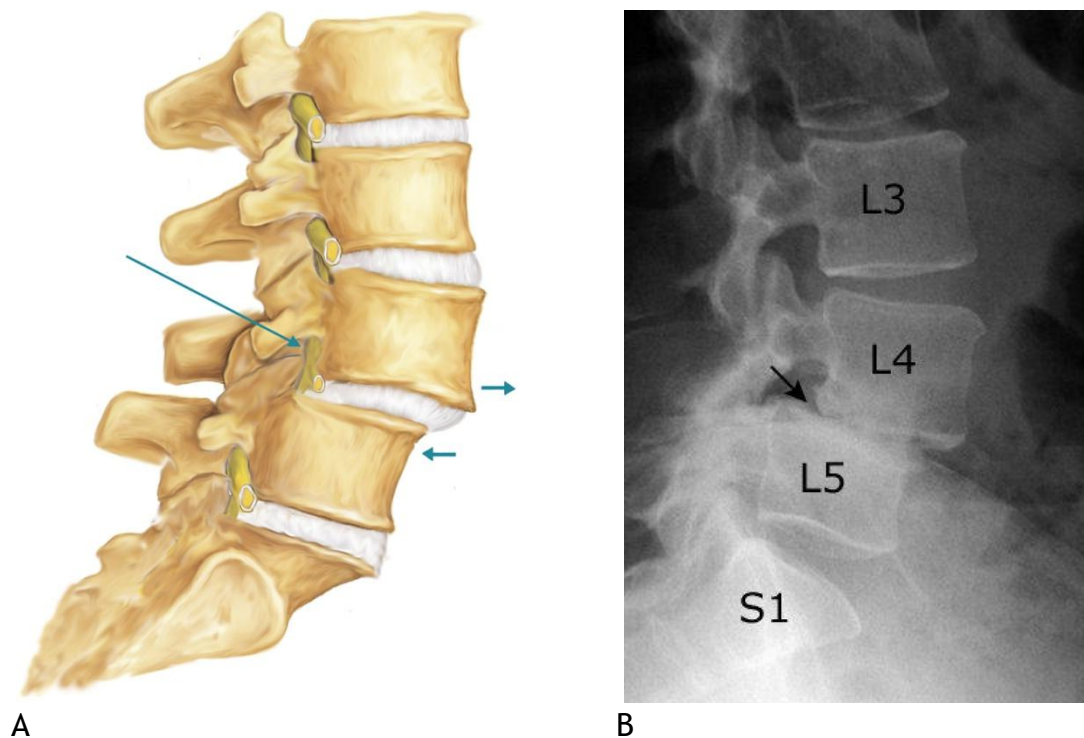


Figure 4: Spondylolisthesis.

A: Drawing of L4-5 degenerative spondylolisthesis (grade 2), from the right.

B: X-ray of L4-5 degenerative spondylolisthesis (grade 2), from the right.

Some cases of spondylolisthesis occur due to a break or non-union of the pars interarticularis, usually at L4 or L5. The nonunion is known as spondylolysis, and the spondylolisthesis that occurs is referred to as congenital or isthmic spondylolisthesis.

In other cases, the spondylolisthesis is simply due to degeneration of the spine with slippage of the facet joints. This is called degenerative spondylolisthesis. Degenerative spondylolisthesis is most common at L4-5, but can be seen at any level of the spine.

Spondylolisthesis is graded according to the degree of slip of one vertebra over the other as follows:

Grade 1	0-25%
Grade 2	26-45%
Grade 3	51-75%
Grade 4	75-100%
Grade 5	> 100%

Spondylolisthesis causes nerve compression in the central canal of the spine (central spinal stenosis) and in the neural foramina on either side of the spine (foraminal stenosis).