

Is the Disc a Source of Back Pain?

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The disc as a source of back pain is a controversial topic. This is primarily because disc degeneration occurs as part of normal aging and presents as often without associated back symptoms as with. It is also controversial because at the present time the only method to determine if a disc is painful is discography which is a diagnostic technique with low sensitivity and specificity. One reason why disc degeneration is considered a potential source of back is that it is sometimes the only identifiable abnormality. Further, it can easily be observed on magnetic resonance imaging and is known from in vitro studies to be biomechanically different from a healthy disc. There are also biochemical theories about the pain resulting from degenerative changes which are difficult to prove in vivo.

In summary, disc degeneration is a cause of secondary spinal conditions which are common and not infrequently lead to surgical intervention. If it is also a source of primary back pain, remains controversial and will be explored further in the presentation.

The disc as a secondary source of back pain is much less controversial. In fact disc degeneration is a necessary presence for herniations to occur. Also when the disc degenerates it loses height. This has implications on the relationship of the moving surfaces of the facet joints creating facet osteoarthritis and leads to stenosis because of the facet osteoarthritis and the bundling of the ligamentum flavum. Thus facet osteoarthritis and spinal stenosis can be seen as secondary to disc degeneration. Another secondary disease entity is degenerative spondylolisthesis where the biomechanically weaker disc allows slippage of one vertebra on its neighbor.