

What Really Causes Disc Degeneration?Â

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In this study, researchers asked the question: what is it that causes disc degeneration the most? Is it what we do (occupational, physical activities)? Or is it how we are put together (size, weight, shape)? For example, is it age, body weight, or lifelong loading from daily activities? Or is it the size of the disc or the person's lifting strength?

Data for all these variables was collected on 600 men, ages 35 to 70 years old. These men have all been part of a larger study in Finland called the *Finnish Twin Cohort*. Data on work history and leisure activities was recorded. Basic body measurements were taken. And MRIs of the lumbar spine were obtained.

After analyzing all the data, the authors found that:

- Age and body weight are key factors in disc degeneration
- Actual time spent lifting and carrying loads are less important than body weight or mass
- Occupational lifting or repeated loading of the spine from physical activity actually benefits the discs
- Smaller discs do better because it's easier for nutrients to reach each cell
- Forces across the lumbar spine vary with body weight and lifting strength; this may explain why some discs degenerate more than others

The results of this study go against the traditional view that physical loading and repetitive spinal movements are bad for the back. The authors suggest that lifelong loading from body weight is more detrimental than work-related lifting and loading. Loading from daily physical activity may actually help offset the effects of aging.

Tapio Videman, MD, PhD, et al. The Effects of Anthropometrics, Lifting Strength, and Physical Activities in Disc Degeneration. In *Spine*. June 1, 2007. Vol. 32. No. 13. Pp. 1406-1413.