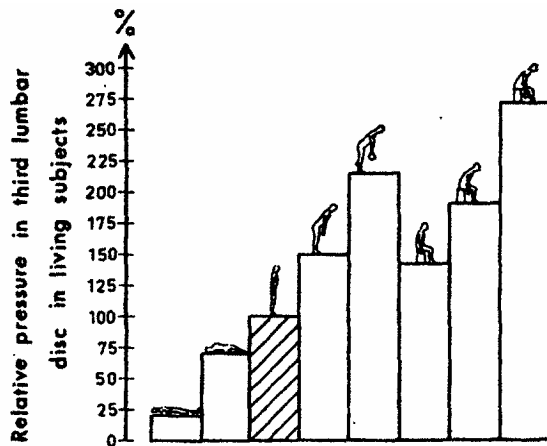


YOUR PATIENT'S POSTURE.....IS IT THAT IMPORTANT??

If you see patients presenting with complaints of low back pain, as a result of a lifting activity, you may advise them to “keep their posture” or “don’t lift the wrong way” or “keep your back straight”. Does it really make a difference? Research would indicate that it does. Many patients with acute or reoccurring low back pain seek medical attention, reporting they were simply “bending to pick something up from the floor”, or “bending over to shave” or perhaps “sitting for a while and couldn’t stand up”. These mechanisms of injuries contain a common factor- the lumbar spine was in a flexed posture when the injury occurred; it didn’t matter the *weight* they were lifting, it was the position or *posture* the spine was in at the time of injury.

The classic study by Nachemson, published in *Spine*, 1981 and further confirmed by others, show that pressure within the spinal disc increases as the spine is flexed forward and/or in a sitting position compared to neutral spine postures such as standing or laying down. Posture plays a significant role in spinal intradiscal pressure. Increases in disc pressure over time can lead to tears or fissures in the annulus fibrosis- the outer rings of the disc, thus leading to disc buldges and herniations. Postures such as forward bending, forward bending with resistance (lifting), and sitting- especially with the back rounded or slouched, all contribute to increased intradiscal pressure (see figure below).



Position of body

Relative increase and decrease in intradiscal pressure in different supine, standing and sitting postures, compared to the pressure in upright standing (100%)

How many of your patients, after a back injury, take pain medications and/or NSAIDS meds, go home to “rest their back”—flexing their spine by sitting in a soft couch, chair or recliner? They may continue to flex the spine by sleeping in a fetal/curled position, bend forward and flex the spine to don shoes, perform ADL’s, work and leisure activities. They may be ambulating in a bent over fashion (flexed) and cannot straighten up. In all these cases, are they not assuming the same positions which increase intradiscal pressure and place the lumbar spine in the same “flexed” posture that was the reported mechanism of injury?

Every spinal injury must be evaluated and treated based upon a thorough physical exam, diagnostic tests and subjective reports. The specific injured structure (disc, facet, ligament, muscle, fascia, etc) or condition (disc herniation, spondyolsthesis, fracture, stenosis, etc) is often difficult, but necessary to identify for proper treatment. Your patient's **posture** following the injury or condition can make a difference.

For patients with an acute, reoccurring, or chronic spinal pain, consider a referral to physical therapy with specific instructions for the therapist to review proper spinal posture during your patient's activities such as standing, sitting, working, exercising, and ADL's. Many patients don't understand that they may be doing more harm by assuming or maintaining improper spine posture- especially following a spinal injury or diagnosis of a chronic condition.

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