

Hatha Yoga as Physical Therapy for Low Back Pain Spinal Disks

One cause of low back pain is nerve root impingement from lumbar disk herniation. We know that prolonged sitting in spinal flexion will cause pressure to the posterior lateral disk wall. Eventually the disk wall weakens and splits, allowing the disk material to press into nerve roots. We know that sitting in chairs causes three times the intradiscal pressure, compared to supine. We know people sit excessively in our culture.

Robin McKenzie pioneered his extension protocol in the 1970s. This is a very effective treatment to lumbar disk herniation caused by the spinal flexion disk compression, especially in sitting.

I have evolved Robin McKenzie's extension exercises into the more aware, precise, and skillful movements of hatha yoga. Probably, the yogis have realized that skillful extension heals certain people with low back pain for many years.

I agree with McKenzie that disk compression in spinal flexion causes pain and dysfunction, since patients/ students report low back pain with prolonged sitting. Commonly, I see them as having a low threshold to the compression in spinal flexion when sitting, bending forward in standing, and lifting. They report relief in standing straight and lying down.

My paradigm allows me to see people with specific vulnerabilities to mechanical stress, where movements have to be either relieving and provocative. One may not be aware that they are constantly reinjuring themselves by the provocative posture of sitting. One may not be aware of the relieving walk or prone position. The body simply cannot heal itself if it is continuously inflamed by disk herniation. We must realize what mechanical stresses of everyday life are provoking us into nerve impingement. We must allow the inflamed structures to rest and begin healing. We must move in skillful ways, to facilitate this healing, raising our threshold to spinal flexion.

Like McKenzie, yogis suggest curtailing all injurious mechanical stress from spinal flexion by drastically reducing sitting and bending forward. Both would start to introduce much more extension or backbends into the everyday movements and therapy.

Some very acute patients cannot begin with extension. Lying supine in a chair seat supporting their calves is a good start. Maybe they can tolerate prone with a pillow under their ASIS [hip bones].

When they can tolerate extension, I start with supine chest openers. I feel patients can control the gradual movement into lumbar extension when they start with the roll under their shoulder blades and with hips off the floor. They can learn to move with the exhalation. They can slowly lower the hips. They can eventually bring the roll closer to their lumbar spine. There are several other supine chest openers they can eventually move into.

I would always complement a chest opener with supine knees to chest, and a bent knee supine twist. Later I would add a bridge pose following the chest opener, before knees to chest. Also later I would increase the diameter of the chest roll. One wool blanket is 5"-6", a

double blanket or round bolster is twice the diameter of the single roll.

Hopefully patients/ students can tolerate prone when I first see them. Cobra and Up Dog pose are similar to McKenzie's press up. I start with their chin resting on their hands on the floor. They begin to press the top of their feet into the floor, gently lifting their knees and inner thighs. They must learn to balance this move with rolling the perineum towards the floor without gripping their gluteus maximus muscles. Then they can prop on elbows and finally straighten arms into Cobra and then Up Dog. I would complement these with easing into Child's pose.

We would of course bypass sitting and head straight to standing. Standing skillfully is Tadasana. The basic actions of standing poses will bring length and the normal curves to the spine. The disks have less compression and more even compression in a good Tadasana. Eventually we would guide them into a preparation for drop back, which is similar to McKenzie's press back. Yogis would ground through the heels, keep the center back and tucking, and lift the upper thoracic spine upwards to avoid facet compression. Standing Child's pose or Malasana [squat] are appropriate counters to the extension in standing.

As the disk walls heal, the inflammatory process dissipates, the mechanical stress to spinal flexion is reintroduced. Actually the provocation to put pressure into the posterior lateral disk wall is necessary to raise the threshold to tolerate "normal" activities, such as sitting in chairs, taking groceries out of the trunk, etc.

But a balance must be made. The body signals us all the time about the mechanical stresses and our ability to handle them. We must be aware of these sensations. We will have to add more extension into our day if we overdo with spinal flexion. Our body will let us know when we do not listen and balance the mechanical stresses.

Stan Andrzejewski PT