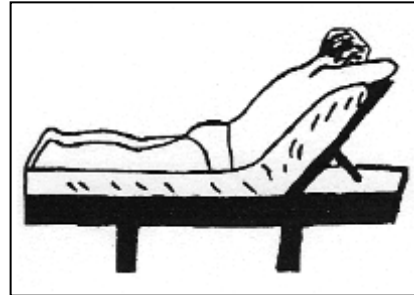


# The McKenzie Method of Mechanical Diagnosis and Therapy

## ***Accidental Discovery***

An accidental discovery by Robin McKenzie, a New Zealand physical therapist, led to the development of the now well-known *McKenzie Method* -- a series of self-treatment techniques that makes most back and neck pain very simple to treat on your own. Here's what happened:

One day a patient with pain in the low back into the right leg that McKenzie had been treating unsuccessfully for three weeks came into his clinic. McKenzie was busy that day and told his patient to go into the treatment room and lie on his stomach to rest his back and wait for him to finish with another patient. McKenzie forgot that he left the top half of the table raised up and the patient did as he was told and lied down on his stomach – arching his low back!



A few minutes later McKenzie came into the room, surprised to see the patient lying in this unusual position. He was even more surprised to hear that the patient's leg pain and most of his low back pain had gone away during the past few minutes by merely lying in this position!

The patient got off the table and he still had some lower back pain but his leg pain was completely gone. The next day McKenzie had the patient lie face down in that same position and within a few minutes the rest of his low back pain went away!

What McKenzie learned from his accidental discovery is that most back and neck pain has a directional preference. Most spinal pain can diminish with backward bending positions/movements and a small percentage will diminish with more twisting or tilting movements.

Properly trained professionals can assess the patient's response to loading and identify the correct positions and movements for their back and neck pain. Once the patient's directional preference is determined, pain can diminish within minutes and can completely resolve within a few days to weeks as these techniques are continued.

Over 25,000 health care providers worldwide have had training in the use of McKenzie techniques – including physical therapists, chiropractors, and medical doctors. Of these, about 2,500 worldwide are fully trained and are credentialed by the McKenzie Institute®.

Vert Mooney, MD, Professor of Orthopedics at the University of California, San Diego, is one of the most well-known and respected orthopedic surgeons in the United States.

In a research study published in *The Journal of Musculoskeletal Medicine*, Dr. Mooney reported that McKenzie techniques were effective for over **95%** of patients in the study.

### **Why It Works**

Why does neck and low back pain have "directional preference"? The pain must be coming from a structure in the back that is affected by positions and repeated movements. This structure is an intervertebral disc.

Most people experiencing spinal related pain have what McKenzie calls a "disc derangement" more commonly referred to as a disc bulge or herniation. Most neck or back pain that is bad enough for people to go see a doctor is **discogenic** – that is, the source of the pain is coming from a disc in the neck or back.

Between each vertebra (the bones of your spine) is a disc. The discs of your spine function like shock-absorbers, and allow you to bend in various directions.

A disc is constructed similarly to a jelly donut – there is a jelly-like substance in the center or "nucleus" of each disc.

**Bending forward** squeezes the front side of the disc, putting pressure on the jelly to move backwards - towards the pain-sensitive areas of the nerves and spinal cord.

**Bending backward** squeezes the back side of the discs in your spine and puts pressure on the jelly in the discs to move forward – away from the pain-sensitive areas of the nerves and spinal cord.

Bending forward and backward are normal activities that our bodies were designed to perform without pain. However, as a result of years of poor postural

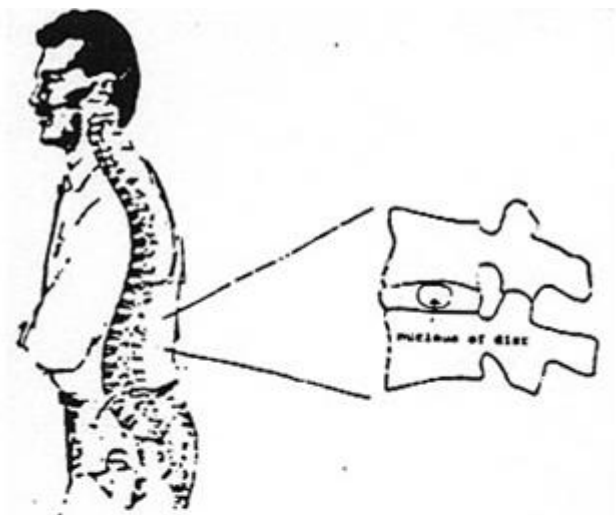


Figure 1b



bending forwards  
squeezes the nucleus  
backwards



bending backwards  
squeezes the nucleus  
forwards

habits or as the result of an injury, a crack or crevice can develop in a disc – allowing the jelly in the center to seep into the crevice and exerting pressure on the nerves that can cause neck or back pain, sometimes also producing pain, numbness, or tingling radiating down an arm or leg.

When a disc has degenerated with age, or is injured, the internal crack or crevice in a disc can develop in any direction, but it usually develops on the back side of a disc.

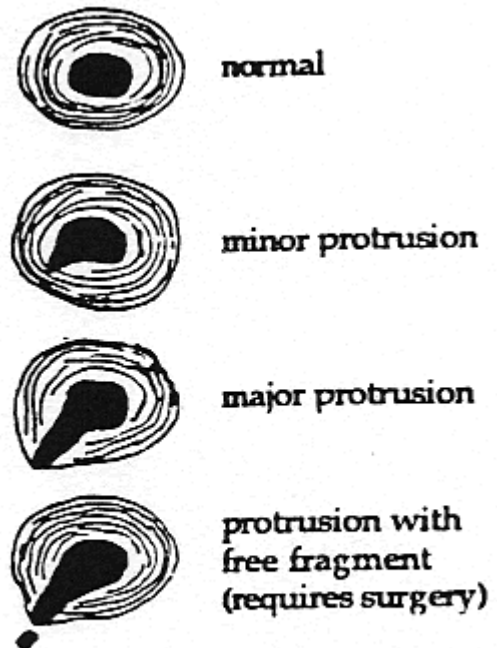
The reason why most disc injuries are to the back side of a disc is simple – nearly everything we do involves forward bending. We bend forward to put on our clothes, brush our teeth, pick up children, lift boxes, work in the garden and we sit slouched for hours and hours. Rarely, if ever, do we bend backwards to compensate for all of this forward bending!

Slouched sitting and excessive forward bending squeezes the front side of our discs, putting backward pressure on the nucleus of our discs day after day, year after year.

Finally one day you bend over and pick up a paperclip and get a nasty pain in your back, buttock or even down a leg. It wasn't the paperclip – that was merely the straw that broke the camel's back. That's the bad news.

The good news is that most of us can abolish our own back or neck pain by doing repeated movements in the opposite direction, by repeatedly bending your neck or low back in the proper direction to push the jelly back in the disc and maintain it there to allow the crack in the disc to heal properly and not allow the jelly escape again.

Just because we say that the pain is coming from a disc does not mean that you need surgery or that this is a serious condition. For most of you, all you need to do is perform repeated movements of your neck or low back in the appropriate direction to make your pain diminish and then go away.



## *Disc Injuries* (viewed from top)

McKenzie believes that most people who hurt enough in the neck or low back to go to a doctor have a disc bulge/herniation or "disc derangement".

Question: *Why couldn't it merely be a "strain" of the neck or back?*

Answer: ***Because most people's pain has a directional preference!***

Most people with low back pain are like the patient who laid face down on the table with his low back arched. **His symptoms changed quickly.** The pain decreased and completely resolved in his leg and back in just a few minutes.

If what he had was a real back "strain"? Then lying on his stomach with his low back arched would **not** make the pain go away.

When you sprain your ankle by twisting it, you cannot merely put the ankle in a certain sustained position or repeatedly move it and make the pain completely and quickly go away. The pain of a sprained ankle or real strained back has tissue damage that typically takes weeks to go away, diminishing a little day by day until the pain is completely gone.

By contrast, the patient from McKenzie's accidental discovery felt his low back and leg pain go away quickly, within 5-10 minutes, by lying on his stomach with his low back arched.

If pain goes away quickly or even just changes quickly because of holding a certain position or performing certain repeated movements and stays that way, that is not the pain of a muscular "strain" – it has to be something else.

The only piece of anatomy in your back or neck that can account for this observed phenomenon is a disc. Pain that has a directional preference and can be made to go away quickly is discogenic – the pain is coming from a disc.

The disc has pain receptors in the outer third of the disc, but not in the inner two thirds. When the jelly in the center of the disc is pushed away from the pain free center to the painful outer layers, pain is produced. By performing the correct movements and squeezing the jelly back toward the middle of the disc where it belongs, the pain will quickly go away and the resolve.

Many more people have discogenic pain than are aware of it. Since we are all more familiar with muscles than spinal anatomy and mechanics we attribute most pain to "tight muscles" or "muscle spasms" when they aren't the true pain generating structure.