



# WHAT IS BACK PAIN?

By Craig Osborne, Chiropractor © 2010

Back pain is an incredibly common problem that is surprisingly poorly understood in many professional circles. The search for a 'cause' often clouds the fact that there is nothing actually broken. Advanced imaging like CT or MRI are often ordered with results that suggest surgery is indicated, yet these diagnoses are often extreme and often lead to unsuccessful treatment options. Sometimes the visual diagnosis blinkers the specialist into deciding the cause when the finding may be coincidental.

## THE WRONG ADVICE

Still quite prevalent is the belief that when back pain hits, if you rest and take a few pills the pain will go away and you will be fine.

It's increasingly been shown that this approach leads to worse problems down the track.

## RESEARCH NOW TELLS US

### What causes the problem:

Except for obvious accidents, almost all back problems are ones that have built up over time. Our sedentary lifestyles combined with a vast array of repetitive movements lead to a build up of stress so that even a relatively minor movement sets in motion an acute episode of back pain. So it's the things we do all day every day that are often the culprit.

### Is anything actually damaged?

In simple terms almost always YES. The research now indicates that most back problems have at the microscopic level some form of damage to the tissue. The challenge with back pain is that without surgery we can never be sure exactly what is damaged. This means if your back hurts you may have damaged muscle, tendon, ligament, joint capsule, disc, cartilage, or nerve.

For most back problems this doesn't

actually matter too much, since when normal function is restored to the joint, normal healing can occur and the damaged is repaired naturally.

### The injury causes instability

There are many small muscles in the spine whose primary function is to stabilise, much like how pegs do to hold a tent in the wind. One of these - Multifidus (see diagram) - is a key muscle that gets switched off around the area of pain and injury. Quite simply this leaves the affected area more unstable, and ironically, more susceptible to injury while it stays inactive. If your treatment approach to back pain is rest and medication, then it seems you are leaving the back in an unstable state that may lead to chronic problems and more pain in the future.

### And then there's muscle spasm

Often what then happens is that since the small stabilisers are inactive (Multifidus) the big muscles of the back will be fired up and you'll often get muscle tightness or spasm into the erector muscles of the spine.

When this type of muscle spasms, or is forced to work as a stabiliser it does it inefficiently. They are designed for short duration movements, not long term holding patterns, so they tire easily, and can

make the job of moving around quite difficult. If you can imagine trying to write but only using your shoulder muscles to move the pen, while you might be able to figure out the words, it will likely be a poor comparison to usual writing.

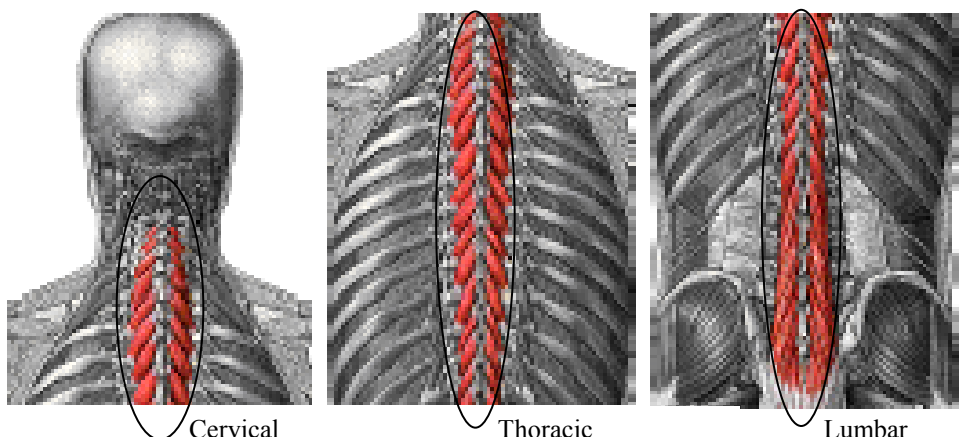
## FUNCTIONAL BACK PAIN—THE CHIROPRACTIC SUBLUXATION

The new pain model now reflects that the problem is typically **FUNCTIONAL**, not structural. So it means you often can't 'put a finger on it'. This model reflects the approach chiropractic has always had to spinal problems; that poor joint function leads to aggravation of muscles, soft tissue and nerves and will best improve through specific adjustments. We call this functional problem a **sUBLUXATION**. If your body was a car, we'd be dealing with a wheel alignment problem. So until you restore proper alignment & function the problem remains.

### WHAT IF YOU DO NOTHING?

It seems you get about 3 months to address the 'injury', after which your chance of improvement decreases rapidly. Even if the pain goes away, without treatment the incorrect function remains & you're set up for a chronically unstable back that is prone to easy re-aggravation. It will respond to treatment but just not as quickly as with early intervention.

The multifidus muscle—passing diagonally from one vertebra to the next



Cervical

Thoracic

Lumbar

## HOW DO YOU FIX FUNCTION?

If the joint is misaligned, stuck, or just not moving smoothly, then something needs to be done to free it up. If left it can become somewhat 'tacky' and get progressively stiffer. In theory any manipulative treatment that gaps (opens) a joint will help to increase joint movement, so physiotherapy, chiropractic, osteopathy or maybe even some massage may help, BUT...

## YOU STILL HAVE A PROBLEM WITH INACTIVE STABILISING MUSCLES : MULTIFIDIS

The latest research is suggesting that the only way to stimulate this postural muscle is by giving it either an *electrical or mechanical 'shock'*. It's not the muscle itself that needs stimulating, it's actually some nerve-like structures called muscle spindles and Golgi tendon organs within the muscle that do. Now these two structures don't respond well to slow gradual stretch, they get stimulated best by a quick mechanical thrust. Not surprisingly these are the sort used in chiropractic. This also means that slow movements such as massage, basic manipulation, self mobilisation or simple stretches will not have any impact on getting the muscle firing again.

## SO WHAT IF YOU LEAVE IT AND DON'T HAVE TREATMENT?

MRI studies have shown that the multifidus muscle will get progressively fatty if it remains turned off. Obviously a fatty muscle won't do a very good job of stabilizing the spine.

## DO I NEED REHAB?

It's essential that you start on a program of relatively simple but very effective postural exercises that should become part of your lifestyle, not just something you do if / when your back is sore. Unfortunately, the main predictor for someone having back pain is a history of back pain. I believe everyone should think about their back differently, and appreciate the way in which everyday stresses have an impact on your health.

## THE ASTHMATIC BACK

Anyone with asthma appreciates that

they have a chronic condition. Remember that chronic means long term, not necessarily severe. There are 3 important aspects to asthma management

1. Respond quickly to acute flare-ups to stop them from becoming severe and disabling
2. Look at daily activities to ensure they're not aggravating the condition
3. Keep fit, eat well and do exercises to help keep the problem in check.

This is how you should view looking after your back. It's a long term management plan. It usually means a degree of focus and reorganising of some lifestyle habits, getting regular with some simple postural exercises, and not letting little back niggles grow into big problems.

Chiropractic spinal health is a new type of fitness for your body. It takes a bit of work getting fit, but once you're there, maintaining it is much easier.

## THE CHIROPRACTIC CARE PLAN

### Acute care / Symptom care

This stage of chiropractic care is the more intense part where we focus on specific problems that are causing pain and discomfort, and work towards alleviating the problem. Taking pain killers and anti-inflammatories during the first few days of a flare-up is sometimes necessary but preferably avoidable. 16500 people die every year from anti-inflammatory use in the USA, so they're not that safe to use.

During this phase we don't worry so much about exercises or stretches as they may inflame the problem. It is important though to begin looking at all the different daily activities that you do, and consider how they might be aggravating your back.

### Functional care

The focus here is to improve posture, starting with the spine and working outwards, There's not much point stretching and strengthening your body at the gym if the spine is all out of line. So depending on your individual needs you may require stretches, and to get the important

core stabilizers of the spine working better. These are the multifidus I mentioned earlier, plus the deep abdominals called transverse abdominals (TVA). The TVA is a belt like muscle around your abdomen, and I liken their function to the ropes that hold a tent strong.

Functional care takes different amounts of time dependant on how long the problem has been there, how severe the problem is, and of course how well you do with your rehabilitation exercises and modifying lifestyle habits.

## Maintenance care

We all know we should see the dentist for a check up every 6 months even if all seems well. The difference is that the teeth do a lot of work but don't do much, the spine moves a huge amount as well doing a lot of work. So moving parts need lots of maintenance. In chiropractic this stage of care can be anywhere from weekly to monthly. And many things affect this including your history, age, level of activity and work stress.

We identify this stage of care by your spine holding the adjustments, and an improved level of wellness as your nervous system is de-stressed and allows your body to function at a greater level of ease.

## UNDERSTANDING YOUR BACK

Although somewhat technical, I hope you better understand what a healthy back is all about. If you're not convinced, ask someone who has a chronic back problem their opinion on how important it is to look after your back. It's the only one you've got, please look after it.

