

# Lower Back Pain

Nearly all of us, 90% of us will be affected by back pain at some stage in our lives.

Back pain is one of the leading causes of time off work. Learning how to cope effectively and what you can do to recover is vital.

X-Rays are useful if you've sustained an epic wipeout in big surf, in beach shore

break, or landed on the rocks or the reef (i.e Michel Bourez at Teahupo'o 2015 or Owen Wright at Pipeline 2015). X-Rays are used to check for fracture, infection (fevers) or to rule out non mechanical causes such as malignancy. However, if your low back pain has come from doing a non-traumatic task at home or work then this is less likely and an X-ray within the first 4-6 weeks is not usually required.

A study by Brinjikji et al. 2015 examined people who had no pain under MRI and the results showed a surprising story (see table below). People with no back pain had a high amount of degenerative spine imaging findings related to their age group.



**Table 2: Age-specific prevalence estimates of degenerative spine imaging findings in asymptomatic patients<sup>a</sup>**

Imaging Finding	Age (yr)						
	20	30	40	50	60	70	80
Disk degeneration	37%	52%	68%	80%	88%	93%	96%
Disk signal loss	17%	33%	54%	73%	86%	94%	97%
Disk height loss	24%	34%	45%	56%	67%	76%	84%
Disk bulge	30%	40%	50%	60%	69%	77%	84%
Disk protrusion	29%	31%	33%	36%	38%	40%	43%
Annular fissure	19%	20%	22%	23%	25%	27%	29%
Facet degeneration	4%	9%	18%	32%	50%	69%	83%
Spondylolisthesis	3%	5%	8%	14%	23%	35%	50%

<sup>a</sup> Prevalence rates estimated with a generalized linear mixed-effects model for the age-specific prevalence estimate (binomial outcome) clustering on study and adjusting for the midpoint of each reported age interval of the study.

From this table we can see 2 things. One that joint or disc degeneration does not have a strong association with pain (all subjects were pain free during examination). Furthermore, that these imaging findings should thus be seen as normal signs of ageing. If you're asking well why is it we have pain?

Check out the pain article I wrote <http://surfphysio.com/category/injury/>

Recently we've also come to learn more about the reliability of MRI reports. As the image shows one person's scan had vastly different interpretations between Radiologists! MRIs are useful if you have altered strength, sensation, numbness in the groin or changes to your bladder or bowel function. An MRI can give healthcare providers more information if you present with the above symptoms. We can think an MRI as producing a series of still photographs. However, unlike videos which tell us more dynamic

**ARE MRIS RELIABLE?**

Herzog, R., et al. (2016). "Variability in diagnostic error rates of 10 MRI centers performing lumbar spine MRI examinations on the same patient within a 3-week period." The Spine Journal.

**1 patient... 10 MRIs...  
10 different results!**

- 49 different 'findings'
- 16 were unique
- 0 found across all 10!

Each Radiologist averaged 12 errors!

So don't just rely on the scan,  
get an informed clinical opinion!

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information such as how well you move or other clinical signs affecting the bigger picture.

Also check out this video for an intriguing perspective on imaging. Within the healthcare system we must aim to better educate people what is normal vs abnormal findings. <https://youtu.be/u3EK9h4JQlo>

## Concerned About Your X-ray or MRI Findings?

### Prevent yourself from becoming a VOMIT (Victim Of Medical Imaging Technology)

Medical imaging procedures such as x-rays, ultrasounds, CT Scans and MRIs can be very valuable for identifying serious medical conditions such as fractures, dislocations, spinal cord injuries, etc. However, once "serious" problems have been ruled out by a doctor, minor findings are of no value in helping to explain the far majority of aches and pains. In fact, not only are the majority of imaging results not helpful, studies support that they are even harmful from a psychological point of view. Especially when reports tell patients that they have *arthritis, degenerative discs, disc bulges, tendon tears, etc.* Everyday thousands of patients across Canada become a VOMIT (Victim Of Medical Imaging Technology). Those who become a VOMIT have been shown to have more doctor's visits, longer lasting pain, more disability, and a lower sense of well being.<sup>1,2,3</sup>

Here are a few important facts regarding medical imaging that you must be aware of to prevent yourself from becoming another VOMIT.

#### Lumbar Spine

Studies have shown that lumbar disc degeneration is present in 40% of individuals under the age of 30 and present in over 90% of those between the ages of 50-55.<sup>8</sup>

Another study showed that amongst healthy young adults aged 20-22 years with no back pain, 48% had at least one degenerated disc, and 25% had a bulging disc.<sup>9</sup>

Leading physicians at the department of Neurosurgery at the University of California strongly recommend AGAINST the routine use of MRI for low back pain since they have found NO LINK between degenerative changes seen on x-rays or MRIs and low back pain.<sup>10</sup>

**Translation: Do not panic if your x-ray or MRI shows "problems" with your discs; they are simply NORMAL changes that happen from the age of 20 onwards.**

#### Hip

There is only a weak association between joint space narrowing seen on hip x-rays and actual symptoms.<sup>11</sup>

In fact, one study showed that 77% of healthy hockey players who had NO pain, had hip and groin abnormalities on their MRIs.<sup>12</sup>

**Translation: Do not panic if your hip x-ray or MRI shows cartilage tears or narrowing; it is NOT a sign of permanent pain or disability.**

#### Knee

Studies have shown that when x-rayed, up to 85% of adults with no actual knee pain have x-rays that show knee arthritis. This means that there is little correlation between the degree of arthritis seen on x-ray, and actual pain.<sup>13</sup>

In fact, one study showed that 48% of healthy professional basketball players had meniscal (cartilage) "damage" on their knee MRIs.<sup>14</sup>

**Translation: Do not panic if your knee x-ray or MRI shows degeneration, arthritis or mild cartilage tears; it is NORMAL!**

#### Thoracic Spine

MRI studies of healthy adults with no history of upper or low back pain found that 47% had disc degeneration, 53% had disc bulges and 58% had disc tears in their thoracic spine. Amazingly 29% of these healthy adults had a disc bulge that was actually deforming and pressing on the spinal cord, yet they did not even know about it.<sup>6,7</sup>

**Translation: Do not panic if your x-ray or MRI shows "problems" with your discs; they are simply common and NORMAL findings.**

#### Cervical Spine

An MRI study of healthy adults and seniors found that 98% of all the men and women with no neck pain had evidence of "degenerative changes" in their cervical discs.<sup>4</sup>

A 10 year study compared the MRIs of healthy people to those with neck whiplash injuries. Immediately and 10 years later, both groups had similar MRIs with 3/4 having neck disc bulges.<sup>5</sup>

**Translation: The far majority of all healthy adults get neck degeneration (arthritis) and disc bulges meaning they are a NORMAL aging process! Therefore neck arthritis or mild to moderate disc bulges cannot possibly be a reasonable explanation of your neck pain, or else 98% of people would have neck pain.**

#### Shoulder

MRI studies of adults who have no shoulder pain show that 20% have partial rotator cuff tears and 15% have full thickness tears. In addition, in those 60 and older with no shoulder pain or injury, 50% (half) of them had rotator cuff tears on their MRI that they did not even know about.<sup>16</sup>

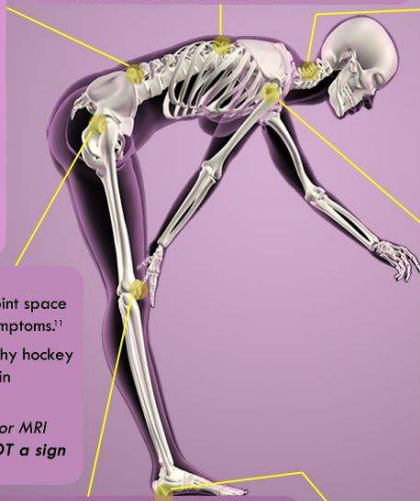
A study on professional baseball pitchers showed that 40% of them had either partial or full thickness rotator cuff tears yet had no pain while playing and remained pain free even 5 years after the study.<sup>17</sup>

**Translation: Do not panic if your ultrasound and/or MRI shows a rotator cuff tear; it is NOT necessarily associated with shoulder pain!**

#### Ankle

Although there is an association with plantar fasciitis and heel spurs, it should also be known that 32% of people with no foot or heel pain have a heel spur visible on x-ray.<sup>15</sup>

**Translation: One third of all people have a heel spur and have no pain.**



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## **8 Tips to help you recover from Low back pain**

### **1. Positive attitude**

This is essential. Reassure yourself you will get better. Because 90% of people improve within a month.

### **2. Movement and Gentle Exercise**

Short bouts of walking or swimming 5-10 minutes at a time are an excellent way to relax the back muscles. Some lower back exercises particularly lower back extensions can be useful once significant trauma is ruled out.



### **3. Relative rest / Pace yourself**

In the first few days a relative rest from activities that aggravate your pain is recommended. However as you begin to improve, it's important to resume normal activity. This prevents deconditioning, developing altered movement patterns or fear avoidance. Progress your activity levels as you are able to tolerate with no worsening symptoms. Lifting will make you stronger but start with lighter loads to begin with.

#### **4. Drink water**

It's a great idea to keep well hydrated. Water helps to hydrate the injured area flush toxins and assists with the natural healing process that is inflammation.



#### **5. Sleep**

One of the most important factors to allow your body to recover is to get a good night's sleep. Pain sensitivity is greatly reduced when we sleep well, as people often report higher levels of pain with interrupted sleep. Pain medication is recommended if you are having great difficulty with getting sleep. Other alternatives are to observe your breathing and allow your body to relax into a state of calm or using a heat pack to relax the back muscles.

#### **6. Get support**

Talk with your family, friends, co-workers or reach out to other surfers in your area to get some positive encouragement.  
See a physiotherapist if you need further guidance or assessment.

## **7. Relax your mind**

Often times injury is a place when negative thoughts can creep in.. Acknowledge and recognise them for what they are, but reassure yourself you'll get better day by day.



## **8. Relax your body as you move**

Often times we tighten up when we are scared of pain. We become frightened to move and anticipate it with our every move. The key is to move slowly but surely. Try to relax as you move without holding your breath. Think of how relaxing when surfing improves your overall style and reduces rigidity of movements.



So there you have it. Those are my 8 keys to successful recovery from Lower Back Pain. It is obviously extremely unpleasant at the time but you will get better and will be back ripping in no time!

Share with fellow surfers to spread the word.

***Disclaimer: If you are not improving then see a physiotherapist or medical professional in your area. Assessment and treatment can then be individualised to your needs.***

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