

LOW BACK PAIN: CORRECTING THE MYTHS

Having low back pain is more common than we think. If you look at the general population in the US, one out of every four people have back pain right in this moment.¹ We spend more on low back pain care (\$134.5 billion) than on diabetes, cardiovascular disease, and cancer.²

Despite how common it is, it can be extremely difficult to have. It can be intense, unrelenting, and disabling. Back pain can especially affect our work. When it comes to back pain, the US loses more than \$100 billion per year due to work absences.³ The costs of low back pain can also be seen in how it affects our home and social life, as well as our mental health.

When you've told someone you have back pain, you've most likely been given mixed responses. Maybe someone recommended a "miracle cure". Maybe someone got surgery and now has chronic, or long-lasting, pain. Maybe someone is recommending expensive imaging and tests. Maybe you've even been given contradictory opinions from health providers. All of this can increase a sense of urgency, fear, and discouragement. Research shows that our views and beliefs about back pain, and how we respond to those beliefs, can strongly increase or decrease pain intensity, disability, and the chances of it becoming chronic.^{4,5}

The purpose of this article is to highlight possible myths we may have gathered along the way that may keep us stuck in pain. With correct information and a better perspective, we can increase our likelihood of returning to a normal, fulfilling life.



Myth #1: "I'm in a lot of pain. Something is really wrong!"

It was believed for many years, and is still a persistent belief in our medical community, that our pain is directly related to damage. If I am in a lot of pain, there must be something wrong with my body. If I am in minimal pain, then this isn't serious!

What is being found in research is that pain is much more complex than that. Certain factors including stress, the context in which our pain started, work satisfaction, marital

satisfaction, and many others can influence our pain more than what is found structurally on an MRI or x-ray.^{6,7,8,9} Someone can have severe pain, and have relatively normal findings on imaging. It is also possible that someone can have no pain and have significant degeneration in their spine. What this means is that degeneration or structural changes in your spine can influence pain but does not determine whether pain will be there or how intense it will be.



Focusing on the belief that pain = damage can lead to heightened stress and anxiety. We start to expect the worst. Research calls this “pain catastrophizing”, and it has a huge impact on our pain. People with higher catastrophizing of their low back pain are *70% more likely* to have their pain become chronic, and *three times more likely* to develop disabling chronic pain.⁴ Those are high odds!

One of the best things a person can do when in the early phases of back pain is to correctly educate themselves on low back pain. Understanding pain can reduce fear and catastrophizing, which can help decrease pain intensity and how long it lasts.⁴ Take time to look at readily available pain educational materials listed at the end of this article.

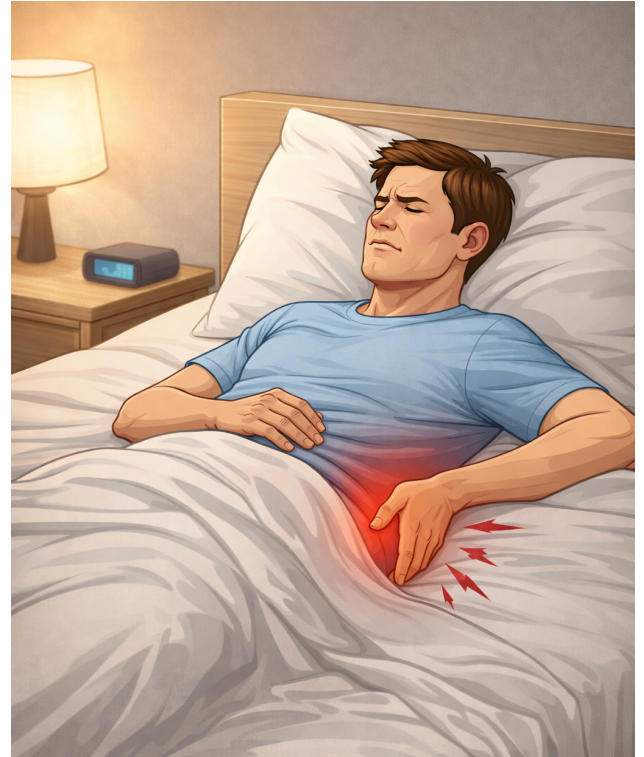
Myth #2: "What my back needs is rest"

“Strict bed rest for 1-2 weeks”. This was a common prescription by doctors in the mid to late 1900s for treating low back pain. This approach to treating back pain was based on key assumptions: pain = tissue injury, and movement = reinjury, so rest is healing. It also makes intuitive sense: if something causes pain, stop doing it.

Modern research, however, is telling us something very different when it comes to spine health. Bed rest can actually *delay* healing. People with back pain who were given advice to stay active had faster return to work, less chronic disability, and fewer reinjury than those prescribed bed rest.¹⁰ Overall, avoiding pain makes pain worse. What scientists call “pain-avoidance behavior” can double, and sometimes triple, the likelihood of that pain becoming long lasting.^{4,11}

When it comes to movement and activity, you don't want to go to the other extreme and do everything you were doing before with no regard to your pain. Pushing too much into pain can unnecessarily irritate your back. The most important recommendation is to move and be active as tolerated. If it causes pain, then do less, take frequent breaks, but keep moving. Spend as much time out of bed as you can.

If your pain is severe and you are hesitant about moving and being active, seek physical therapy. Research shows that, with acute low back pain, getting into PT early (within 14 days of the pain starting) can significantly reduce long-term opioid use, emergency department visits, likelihood of surgery, lost workdays, and overall disability.^{12,13,14}



Myth #3: "I need an MRI to really find out what is really wrong"

In our modern age of instant answers and quick fixes, it can be tempting to want diagnostic imaging (eg. MRIs, CT scans, X-rays) early to fix the problem. Information is good, right? "The faster I know what is wrong, the faster I will get better."

Once again, research tells us this is rarely the case. Early imaging, including an MRI within 6 weeks of the start of symptoms, can double your likelihood of work disability lasting up to a year.¹⁵ Other studies found that early MRIs increased risk of spine surgery, opioid use, injections, and worse pain overall.^{16,17}

There are some situations in which imaging is needed. These situations and symptoms include:

- New urinary retention or incontinence
- Fecal incontinence
- Numbness in the "saddle" region
- Severe leg weakness
- History of cancer
- Unexplained weight loss
- Fever starting at the same time

- Physical trauma caused pain (significant fall, car accident, etc.)

Overall, if none of these situations or symptoms apply to you, it would be best to skip the MRI and avoid more invasive and harmful procedures and medications.

Myth #4: "My MRI said I have a disc bulge. That means surgery!"

Why can early MRIs lead to invasive and harmful procedures, longer disability, and worse pain overall?

Think of someone suddenly becoming dizzy. If a blood pressure test is taken, showing high blood pressure, an easy conclusion can be made: high blood pressure is causing the dizziness. Blood pressure medication is given, and the patient is sent for expensive cardiovascular testing.



The problem with this is that high blood pressure isn't always the cause of dizziness. Dizziness can also come from anxiety, dehydration, medication side effects, or inner ear problems. By basing medical care on that one test, the person now has the risks of medication side effects and additional expensive testing, when the dizziness may be unrelated.

In this example, dizziness is low back pain, and the blood pressure test is the MRI. The MRI can create a false positive, meaning it can find something out of the norm that isn't the cause of the pain. The pain may be due to other factors outside of what the MRI is showing. If we treat the scan and not the person, we risk creating more problems than we solve.

An interesting study was done to see how common it is to have abnormal findings on an MRI. The researchers took thousands of people that *did not have back pain* and stuck them into MRI machines. What they found was a high number of people walking around, carrying on a normal life without pain, have significant degeneration in their spines. As the table below shows, disc degeneration is found in 50% of 30-year-olds, and it gets more common as we age. One in every five people at the age of 40 has facet degeneration (damage to the joints of the spine) and annular fissures (tears in the discs).¹⁸

Age-specific prevalence estimates of degenerative spine imaging findings in asymptomatic patients.

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	04%	09%	18%	32%	50%	69%	83%
Spondylolisthesis	03%	05%	08%	14%	23%	35%	50%

Overall, degeneration in the spine is actually common. Many researchers and health professionals call this “wrinkles in the spine”. In other words, spinal degeneration is a natural process of aging. If we get an MRI too early, we are at risk of finding things that potentially were there before the injury or are fairly normal for our age.

Be cautious about requesting or being ordered an MRI at this stage in your healing.



What should I do then?

To summarize, the best things you can do for your back are:

1. Educate yourself about back pain and pain science
2. Avoid bed rest as much as possible
3. Continue to move as tolerated
4. Seek physical therapy

Physical therapy has been proven to improve symptoms and reduce the likelihood of surgery. It can reduce disability, reduce the length it takes to heal, reduce pain intensity, and produce similar long-term benefits as surgery can.^{19,20} All good news!

Keep in mind throughout this process that the overwhelming majority of back pain heals. With milder episodes of low back pain, 70% of people recover within one week, and 91% recovered after 6 weeks.²¹ With

more intense episodes of low back pain, 80% recover within 6-12 weeks after the start of an episode, and 75-96% of people *do not* develop chronic pain.²²

The chances of you getting better are very high. With patience, understanding, and seeking help as needed, you can return to a normal life, including work or school, enjoyable and meaningful activities, and a healthy social life, all without being limited by pain.



Pain science educational material

YouTube

1. Sid Anandkumar, "Low back pain: myths vs. Facts"
2. YouTube: Julia Gover, "Pain and the brain"

Websites

1. Neuro Orthopaedic Institute—NOIgroup.com
2. Painful Truth—Painfultruth.ca

Podcasts

1. Dr. Joe Tatta—Pain Science Podcast
2. Dr. Adriaan Louw—Like Mind, Like Body Podcast

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