

It's time to change how we think about pain

Living with pain is exhausting, all-consuming and seriously affects your quality of life. And yet, how many of us can say that we really *understand* the pain? We try to mask it with pain killers, avoid it and limit ourselves so as not to cause it, but we don't really know what it is.

In this short eBook, we're going to look at pain in a holistic way – drawing on latest findings and theories, so that you can start to approach your pain in a different way, and learn how to start living pain-free.

What is pain?

A good way to think about pain is as a signal from your brain that shouts: 'YOU NEED TO CHANGE SOMETHING!'

This signal is pretty non-specific. There are a lot of candidates for the 'something' that we need to change.

But let's start with the most simple scenario: the pain is felt in the location of the problem. Perhaps the pain signal is making your lower back hurt. This could be because there is tissue damage, or poor blood flow, in that specific point. Once a physio treats you, this pain will go.

Yet in another common scenario, the lower-back pain might not be tissue damage at all. It might be nothing to do with your lower back. That's just the place your brain has sent the pain signal. It's trying to get your attention, alerting you to a problem – and lower-back pain is a very common way of doing this.

The problem could be tissue damage or restricted blood flow somewhere else in your body – such as your hips or shoulders, and a good physio will work this out, treat the body more globally and the pain will go – or it might not be due to tissue damage at all.

Did you know that one of the biggest predictors of lower-back pain is job dissatisfaction? Pain can be the result of other lifestyle challenges.

Pain does not start in your body

Pain originates in the brain, not in the body. This can be hard to wrap your head around at first. *Pain starts in the brain.* We know this because of the experiences of the amputee community – someone who has lost a limb can still feel pain in that missing limb.

This is because pain is an output that the brain chooses to send to the body. And the reasons it chooses to send this output are manifold.

Why would your brain choose pain?

If pain is not originating in our bodies, and is in fact being *chosen* by the brain as an output, why on earth would it do this? It seems completely counterproductive that our brains limit us with pain signals, affecting our quality of life.

The way to understand this is to think about pain being a response to raised threat levels. Once your threat levels are high, your brain starts to send negative outputs. These are things like pain, nausea, anxiety, dizziness, stiffness, weakness, reduced range of

movement (to name a few). All physical sensations that will make sure that you limit your activity and retreat to a safe space.

The brain's overarching job is to keep you alive. That's its main mission at any given point in time. And from your brain's point of view, you'd probably be safest at home watching telly. Not going out and interacting with the world and doing something new. And so it sends these negative outputs as a way to reduce the number of risks that you take (from your brain's perspective, risks are anything new, anything with an element of uncertainty).

What contributes to raised threat levels?

This will vary from person to person, depending on past lived experience, personality, temperament and situation. But let's imagine the following scenario:

You wake up in the morning after a bad night's sleep and the heating isn't working – you need to call a plumber. You're cold, and so you rush to get dressed and discover that your washing hasn't dried overnight. You need to race to work, but you realise your partner left you with no petrol, so you have to fill up, you're sat in traffic. Now you're late to work. Your boss has a stern word with you. You're bombarded by emails and meetings and requests all day. You don't get time to move your body, or to eat well at lunch. Your heels are hurting your feet, the waistband on your trousers digs in a little, the label on your shirt is itching. You've had a little too much caffeine and you stare at a bright screen. You rush home to a cold house. The dinner burns... etcetera. These are mundane things, no big deal, but cumulatively they build the threat level in your body.

Add to this things like eye strain, problems with proprioception (awareness of the your body in space), hormonal fluctuations, hearing issues, vestibular problems... and the threat level is actually quite high.

So pain is not necessarily a sign of tissue damage. It certainly can be. But it is not always a sign of damage, and it can often be really helpful to look at pain holistically within your lifestyle.

How can we make the brain feel safe?

When threat levels are high, the brain feels unsafe. When it feels unsafe, it sends outputs (often negative physical experiences) to your body to make you seek safety (sitting on the sofa watching telly). One of these outputs is pain, and very often it is chronic lower back pain.

So, if the brain feeling unsafe results in pain, once we make the brain feel safe, we can reduce or eliminate back pain.

When the brain feels safe, it will send you positive outputs, such as an increased range of movement, increased strength and endurance, faster movement, happiness, a sense of calm, and a reduction in pain.

To make the brain feel safe, you need to take a look at your daily life. Where are these threats beginning to build up? Where can you reduce them?

Or, if you find that without a major overhaul of your life you can't currently reduce these stressors, where can you start adding things to your life that combat these threats? Adding things like eating nourishing foods, breathing well, sleeping well, moving your body

regularly, going outside in sunlight, resting when you need to and staying hydrated will all reduce the threat levels significantly.

Studies have also shown that when your eyes are fixed on a still point for too long – let's say a laptop or mobile phone screen – this causes stress within your system. When your eyes move side to side, as though you were walking through a landscape and gently scanning your surroundings, this calms your nervous system and reduces your threat levels. So if you're able to get outside for even a short walk, this can really help you manage your pain symptoms.

Back pain

One of the most common problems that people come to yoga and Pilates classes with is chronic lower back pain. Close to half of our clients start off with back pain; it's the reason they seek out a class in the first place.

Once your 'back has gone' once, you might find you're always a little on edge – what movements might trigger it again? What should you do to compensate for it? What activities now feel too strenuous?

It saps away your confidence in your body and what it can do. Perhaps you've started to limit your movement range, or you've stopped moving as much, or you're sitting more often as a means of minimising the pain.

Unfortunately, all these adaptations and compensations make the pain worse in the long-run. Why? Because being stiff, static, unable to move freely and without stability and strength are all be threats to the survival of an ancient human – and our brains are still the brains of ancient humans. They're still looking for danger and threats coming at us in the wild.

As we've seen, when the brain thinks the threat level is too high – it can choose to send you pain.

Yoga and Pilates and pain reduction

Yoga and Pilates are both brilliant at reducing back pain, but perhaps not because of the reasons that you think.

Let's consider an hour's yoga or Pilates class:

- You are forced to focus on yourself
- You can't get distracted by your to-do list
- The space is calming, warm, soothing
- You're breathing deeply and slowly
- You're moving your body continuously for an hour
- You're improving mobility
- You're working in a variety of ranges and positions
- You're increasing body awareness and feedback from your joints
- You're improving flexibility
- You're building strength, stability and resilience in your system
- You're relaxing and de-stressing
- You're shifting your gaze (drishti in yoga) and changing where you're looking regularly

- You're connecting socially
- You're learning something new

When you look at these together, you can see that all these things reduce your threat levels – they all contribute to increasing the level of safety that your brain feels.

When you are relaxed, strong, mobile, flexible, learning, social and adapting – you're more likely to survive (in an ancient context). As your threat levels lower, your pain reduces – with or without tissue damage. This is how we can treat pain holistically. You do not need to focus only on exercises that target your lower back if you are suffering with lower back pain – you can improve pain through focusing more globally on the body, brain and emotions.

All the systems in the body work together to try and heal you. Pain, even though it doesn't feel like it, is part of that process – drawing attention to the existence of a problem. It is not punishing you, it is not telling you you've done something wrong.

What spine scans can tell us

Perhaps you've had a spine scan and been given a diagnosis of something like a herniated disc, joint facet syndrome, fused vertebra, and this has given you an understanding of the cause of your pain. This is great – we all love the certainty of knowing what is wrong with us. However, spine scans also show that you can have a herniated disc and *no* pain. Pain is not a necessary output in this situation. If you feel safe, your pain levels will decrease, regardless of the results of the scan.

In fact, healthy, pain-free spines are full of problems on a scan! Spine issues are very common and very normal in all age groups. Pain does not have to be.

Steps to take to reduce pain

- 1) **Firstly, reduce threats.** Take a good look at your daily life, and think about where you feel the fissions of low-level stress each day. Then decide if there is a way to get rid of these moments. We are all creatures of habit, and you might find that you've been doing something for years that causes you a burst of stress or anxiety, and you might not need to do it at all. Be kind to yourself – imagine you are looking at a friend's life and trying to help them enjoy it more.
- 2) **Move your body more.** This is HUGE. If there is one thing you can do for pain levels quickly and easily, it is move. We're designed to move, we are rewarded by our brains when we move (with feel-good, pain-reducing hormones). This doesn't have to be a specific exercise, this is literally just movement.
- 3) **Improve mobility.** Doing mobility exercises helps to improve your brain's awareness of the joints in your body and how they move. This has been shown to reduce pain. In studies, people with lower back pain have been found to have reduced feedback from joint-rich areas of the body (hands, feet, lower back) so when we improve mobility and mapping in these areas, we can reduce pain levels.

- 4) **Strengthen your surrounding muscle groups.** For lower back pain, we want to strengthen your postural muscles, abdominals, glutes, hips and hamstrings. We also want to increase flexibility and mobility in these areas. When these areas of the body are weak, it affects your ability to move smoothly, which adds to your brain's threat levels (from its perspective, you wouldn't be able to outrun a lion and therefore are not safe!)
- 5) **Breathwork.** Breathing properly (through the nose, slowly and deeply, into the bottom ribs and belly) sends signals of calm and safety to the nervous system. You would not be breathing calmly if you were being chased by a lion, or in any immediate threat. So you can utilise your breath as a powerful tool to inform your brain that it can chill out and feel safe.
- 6) **Move within your pain-free range as much as possible.** The brain can get used to the pain output, it can become habitual. And as your confidence in your movement ability drops, you'll move less, your range of movement will decrease and your pain will start more quickly with each movement. To start to combat this, teach your brain that it is possible to move pain-free - even if this is just within a very small range of movement to begin with, and even if that is with painkillers. It is important to retrain the brain into knowing that pain-free movement is possible, and you will see that range of movement increase significantly with consistent practice.
- 7) **Take steps to relax.** I'm obviously going to recommend yoga, Pilates, restorative yoga, breathwork, yoga nidra, walking in nature etc., as that's what works for me and I truly believe in the transformative powers of these practices if you're feeling stressed. But what works for me may not work for you, so find what allows you to relax deeply, and do lots of that.

A note on starting something new

Starting something new – going to a new class – can, in the short term, be seen as a threat by the brain. It's new, it's unknown. You might feel anxious about joining a class. You might be worrying about the other people in the class, will they be really advanced? Will they be friendly? So, in the very first instance, this isn't going to feel comfortable. It isn't going to magically remove your pain. You need to feel safe and relaxed in the class, and depending on you and your past experiences, this might happen within the first 5 minutes, or it might take a couple of weeks.

Pain reduction can take time. It isn't a pain killer. But it is longer acting, and better for you. Stick with it in the first instance, and reap the benefits in the longer term.

Summary

In conclusion, to reduce and eliminate back pain, we want to do as many things in our daily lives as possible to make our brains feel safe. Things like eating well, sleeping well, breathing properly, moving lots, improving mobility and flexibility and increasing strength will all help to reduce your brain's perceived levels of threat and help you to live pain free.

Exercise classes like Pilates and yoga incorporate lots of these elements (movement, mobility, breathwork, social interaction, relaxation, building strength) and so are really good for fighting pain.

If you've enjoyed the information in this eBook, we would love to welcome you to a class at The Well House. If you're quite ready to book a class but would like to know more, drop us a quick email and we'll get back to you promptly to discuss it further (wellhouserawdon@gmail.com).

In the meantime, at home, right now, can you take a deep belly breath? Can you move your fingers and your toes? Can you stand up and walk around the room or garden or neighbourhood? Can you have a glass of water? What are the light levels like? Is it warm enough? Are you wearing comfortable clothes?

These little, innocuous things can help a great deal, and it's easy to start right now.