PAIN IN THE SPINE

Spinal pain, and low back pain in particular, is a good common example of how things can and do go wrong.

Firstly, it is possible to have all the scans completely normal and yet pain occurs and persists. There may be a stigma associated with this pain and in certain circumstances there may be insinuations about the legitimacy of the complaint. This is a particular problem in compensation cases where there is often a perception of blame. Studies show that injuries in the setting of having someone or something at fault are associated with worse outcomes! This cannot be explained by the injury alone.

Next, people with identical changes in their spines shown on scans have different pain experiences. In all cases the back problem may be sending out signals, but each person has a different pain experience. 'Context' factors that affect pain include sleep disturbance, fatigue, depression, stress, worry, previous pain experience, family or work pressures and medications.

Also, even when advanced changes can be shown on scans, frequently there is no pain. Over the age of 20 our bodies start to age (otherwise known as degeneration). The spine too undergoes changes involving the discs and the side 'facet' joints that show up gradually. About 30% of the population shows such changes by the age of 30 with early signs of disc space narrowing and by age of 40, 50% of the population shows changes, including osteoarthritic changes of the facet joints and disc bulges, with no symptoms or awareness.

As the joints age, we gradually lose our flexibility. It may be that some change or sudden trauma stirs up / strains an already stiff degenerative joint; in other instances, pain comes on gradually.

The interesting thing is that even when the pain is severe and the protective spasm sets in, scans cannot reliably detect the actual injured 'spot' in the spine. The changes can be small, invisible, or non-specific. So, this is probably like having a 'small noise' next to a very large 'amplifier'.

If you are told that you have 'prolapsed a disc' or similar, it is simply most often not relevant to your pain. It almost certainly was there for a long time before your pain started and it was well adapted.

These days many people are told their backs are 'unstable'. This is a concept which is not black and white and there is not much agreement on what it even means. Studies show that such 'instability', even when seen on scans as defects in the bones and vertebrae that aren't in a straight line, is present in as many as 11% of younger and middle-aged people who do not know it is there and it doesn't change significantly with time.

However, all this information does is create concern and fear regarding the consequences, which then sets up the scene for amplified and potentially long lasting and disabling pain outcomes.

NB: There is research emerging that doing scans in similar situations is associated with WORSE outcomes, not better ones and that is a major concern. The likely reason for this result is that the findings create unnecessary anxiety if not interpreted properly. This makes the brain think that there is much more danger than there is realistically and it then generates over-'protective' pain.

As stated before, what we also know is that the longer you have spinal pain, the more it tends to spread to nearby areas via neuroplasticity changes and sensitisation of the nervous system. Over time it can even spread from one side of the body to the other side and up and down the spine. Interestingly it can also spread to wider areas of the body as well. There are many names and theories for this type of result including the description 'fibromyalgia', but it is all almost certainly the same process.

This type of sensitised pain is more often poorly responsive to medication; even very strong and potentially addictive painkillers. If your brain and nervous system are sensitised and create this type of protective pain for you, then it does not behave like normal pain and does not respond predictably to treatment including surgery. Surgery can create a worse pain outcome even if structurally successful; this is then called 'failed spinal surgery syndrome'.

Myth busting

There are a lot of myths regarding chronic / persistent pain - here are a few answers.

1. ***Degeneration is always progressive and the pain can only get worse.***

    - Degeneration is usually painless and therefore there is a good chance that any pain will again settle once it re-adapts no matter how bad it 'looks'.

2. ***If it hurts to move then it is better to rest.***

    - Too much rest is harmful for the spine. Sometimes the protective pain will inhibit movement and then a vicious cycle results in progressive stiffness through avoiding activities causing more pain. It is better to try to stay as active as possible.
    - Improving general fitness via regular aerobic exercise, not smoking and some weight loss if required is VERY beneficial, but it is probably best to get advice from an appropriate reassuring professional on how to progress if you are unsure.

3. ***Regular manipulation or similar treatment can reverse the degeneration seen on x-rays.***

    - No medical or other therapy can ever reverse degeneration, but it is thought by many that therapy may help relieve stiffness and reduce input to pain.

4. ***Pain is a sign of damage. Severe pain must mean something is seriously wrong.***

    - Pain is determined by the brain's perception of danger and is not proportional with tissue damage. The context of the pain is the main influencing factor.

5. ***Once pain has set in it will never go away.***

    - This is NOT true at all unless in very unusual circumstances or if you believe it to be true.
    - It is important even after a long period of pain to try and remain positive, and understanding how it all works can make a big difference to slowly switching off the 'protection'.
    - Once you understand pain, other treatments then work better!
    - Other treatments are emerging, including medications which assist to de-sensitise the nervous system. When appropriate, these have a role but are best applied once pain is understood properly. They should be considered a 'circuit-breaker' rather than the total solution.

6. ***Surgery will 'fix' the problem.***

    - Surgery changes the structure; it doesn't restore it to 'normal'.
    - Surgery unavoidably creates varying degrees of scar tissue extending all the way to the skin. This can and does produce nociceptive and neuropathic signalling input to pain.
    - A few accepted orthopaedic surgical procedures have now been subjected to 'fake surgery' comparisons with similar outcomes ie: they work indirectly through a placebo effect when success is perceived. Most operations for pain have not been studied in this way yet and may prove similarly ineffective via direct effects.
    - Surgery is never without risks and complications that can be life changing and irreversible. Surgery is then a 'point of no return'. It should be considered very carefully.
    - Surgery can be completely structurally successful and pain can persist or even worsen. Now you know why.

Where to from here? – pathways back to wellbeing

1. EDUCATION:

- The first and most important step is to understand what it is all about and have the full perspective on your condition. Hopefully you are on your way to that, then …

2. ACTIVE REHABILITATION:

- You've heard the term "use it or lose it". It is true! If we just lie around and rest all day our muscles wither away, our bones become brittle and our joints stiffen up. Regular exercise is important for the back and all other areas, even if you are feeling sore.
- Start a guided and appropriately reassured rehabilitation program, increasing intensity progressively. Have confidence that no harm is being done, and commence 'normalising' your activity as much as possible.
- Initially it will probably hurt but with time it should gradually get easier. Physical therapists can assist with an exercise program that is achievable.
- Think of it in terms of a 'pain hill' that you need to climb to get to the other side. Just take small steps forward initially and it is perhaps best not to make the pain hill 'too steep' (ie; stimulate too much pain) or you may simply roll backwards again.
- It is only through regaining movement, fitness, confidence and normality that pain can settle via a positive and re-adaptive neuroplasticity process.
- Rather than looking too far ahead, this is best done by setting goals, achieving them, and then setting another goal.

3. DON'T IGNORE YOUR THOUGHTS OR EMOTIONS:

- Being in pain is exhausting and stressful. If you have trouble coping experienced psychologists can help. Depression, sleep problems, over-eating, negative and catastrophizing thoughts are all features that almost inevitably accompany the persistent pain experience.
- People often think that their psychological problems are secondary to their pain and the pain must be fixed to fix the psychological problem. The opposite is probably true but at very least you cannot reliably fix one without the other. They are linked tightly together.

4. MEDICAL PROCEDURES, TREATMENT & MEDICATION MAY BE PART OF YOUR RECOVERY:

- Sometimes the pain is just too great to move much and pain medication, injections or manual therapy may be used to reduce the spasm and take the edge of the pain. These interventions are rarely a cure; they just reduce the pain and spasm and allow movement which in turn stimulates the body to heal itself. They are best thought of as 'circuit breakers'. The treatment is the exercise rehabilitation with a foundation of pain literacy.

5. TAKE YOUR PAIN INTO YOUR OWN HANDS:

- The most important person who can help you is you. If you smoke or are excessively overweight you need to try to take control and try to do something about it.
- Work on your psychological health. Find what works for you to calm the mind. This is your journey and your personal preferences are the keys to your recovery. It might be that meditation, gentle yoga, nature walks or a hearty laugh with friends is your best way of 'normalising', reversing the pain neuroplasticity processes and getting the most out of your life. Don't just sit around doing nothing.

- This next bit is confronting but important. There are broadly two relevant groups of people – 'victims' or 'survivors'. Don't be a victim and don't let the environment in which you find yourself in turn you into a victim. Surviving and thriving is much more difficult and hard choices need to be made.
- And always remember that pain is intended to protect you. However most often when pain persists in relation to your musculoskeletal system, it is there and can be very severe, but there is actually nothing to protect you from. All that is required for pain is that the perception of 'danger' is greater than the perception of 'safety'.

NB: If any new symptoms of concern develop, please bring these to your treater's attention to check out fully. It is important to ensure that there is no major illness evident, as very rarely medical problems can present with generalised or persistent pain but usually with other symptoms as well. These may require specific investigation based on these new symptoms. BUT REMEMBER, these are quite rare so don't worry unnecessarily.

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Any questions??
Feel free to ask.

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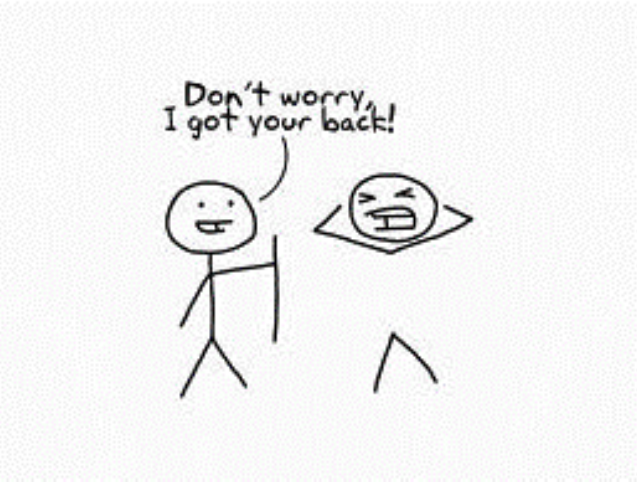

NB: The material presented here is purely for information purpose and is intended to help patients better understand their health issues and to make informed decisions about their health care. Should you require management of a specific condition, you are advised to seek appropriate assistance from a suitable, qualified practitioner.