MY THOUGHTS ABOUT PAIN

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I firmly believe that movement restoration is at the heart of pain management.

Move more and fear less.

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What is pain?

Pain is an unpleasant sensation that you experience. More specifically, it is a neurobiological signal that is transferred to the brain after stimulation of peripheral or sometimes, central nerve receptors or detectors. The brain assesses this signal in the context of past experiences within your current emotional and physical environment and labels this signal as painful. The brain then activates a myriad of responses: emotional (e.g. crying), physical (e.g. activate muscles to move away from stimulus) and remembers the stimulus as painful to avoid in the future.

An acute pain response is a survival mechanism (e.g. after touching something hot or after fracture), prompting the person to seek help or to avoid further trauma by moving away from painful stimulus. Chronic pain (pain of more than 3 months, or beyond the expected duration of tissue healing) is more difficult to explain. The purpose of chronic pain is less clear given that there is usually no more risk of ongoing tissue damage.

Some chronic pain can be explained, for example an arthritic joint that causes pain when it is moved or compressed. Chronic pain from arthritic joints or degenerate discs is usually specific, localized and made worse with specific actions. Chronic pain from a specific structure, can over time also initiate more general pain causing pain across a wider area, with unexplained hypersensitivity to touch.

The causes of some chronic pain cannot easily be attributed to an injury to a specific structure. I believe the onset and causes of this type of chronic pain is found within the context of past experiences and beliefs, as well as the environment of the initial traumatic event e.g. the pain presentation after an injury that occurred on the sporting field can be different to when injury occurred at work.

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Injury leads to the activation of an overprotective and overactive neural response. Over time this overactive neural response leads to formation of abnormal nerve connections in the central nervous system that continues to send pain signals to the brain. Chronic pain system activation leads to negative emotions that further amplify the pain experience, and also various protective mechanisms that manifest as fear avoidance behavior. Fear avoidance behavior presents as reduced movement (avoiding potential painful movements) and overactive protective muscle action. This leads to people avoiding everyday tasks or actions because they fear more pain.

Thus, it is clear that chronic pain is more than just a physical or central (brain) experience, but it affects the whole person and their social network. Treatment strategies for chronic pain should focus on the physical (a specific pain focus), psychological, and social environment of the individual.

My treatment philosophies

I firmly believe that movement restoration is at the heart of pain management. Whatever treatment modality we use, the main aim would be to move more and fear less. Our ultimate goal will be for you to return to your usual activities, including work duties, and for you to be able to fulfill your role in your family and society.

1. Diagnosing pain

Firstly, I would take a detailed history and perform a clinical examination. I would assess if there is a specific pain generating structure, or if the pain is referred pain (i.e. due to nerve compression in the spine, or a pain generator higher up along the kinetic chain referring down the arm or leg).

Next, I would assess special investigations like MRI scans. Usually MRI and other types of scans are not very helpful in finding the cause of chronic pain. In general MRI's are helpful to rule out sinister pathology e.g. tumours, look for nerve compression that can explain nerve referred pain and to look for specific disc changes that have been linked to chronic back pain.

I would use various diagnostic interventions to make an accurate pain diagnosis. In general, the main aim of diagnostic interventions is to numb a potential pain generator for a short period of time, allowing you to test the response. If that structure is your main pain generator then you should experience at least a short-term significant reduction in pain, and you should be able to perform a pre-intervention painful action with minimal or significantly less pain.

Sometimes we are unable to identify a specific pain generator. In those cases, pain may be generated from local nerve or more central nerve hypersensitivity mechanisms.

2. Treatment modalities

- **Pharmacological (medication)**

If you are currently taking opioid containing medications, do not feel guilty. At some point in the past a medical professional thought that this type of medication might be the best way to manage your pain. Long-term opioid use however has significant negative effects on your overall health and function, and in some instances can cause or make pain worse - we call this opioid induced hypersensitivity. I would support you weaning off opioid medication or reduce the dose.

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- **Physical therapies like physiotherapy or osteopathy**

We will empower your current physiotherapist or osteopath to help you move better and more, and to fear less. We will use treatments that reduce your pain, thus making physical therapies more effective.

- **Minimal invasive interventions**

If we have identified a specific pain generating structure, we use long-term nerve blocks to reduce pain from that structure e.g. radiofrequency neurotomy

If you have nerve pain causing referred pain we use injections that can reduce inflammation at the site of compression e.g. epidural injections, or if your pain is due to long-term nerve compression we can use injections that aim to break down scarring between the nerve and surrounding structures, or use techniques that reduce nerve hypersensitivity.

For central or peripheral nerve sensitivity type pain we use modalities that desensitize nerve endings at the level of the spinal cord e.g. spinal cord stimulation, or at a peripheral level e.g. nerve field neuromodulation.

- **Surgical**

Surgical interventions can be successful for some pain presentations e.g. acute nerve pain, spinal stenosis and spinal instability

- **Psychological support**

Psychologists form an integral part of the multi-disciplinary pain management team.

3. Self-management

Whatever treatment plan we design to manage your pain, self-management will be critical to that plan. In most pain presentations we will encourage you to move more, even if it hurts. Flare-ups in pain will happen and can be managed by pacing (planned rest breaks) and setting realistic functional goals. Set small daily achievable goals: e.g. walk to front gate, get the mail from mailbox, walk around the block with my partner and doing some housework.

4. Return to work

If you are not currently working as a result of your injuries, we will help and guide you to return to work, even if that means in a reduced capacity. We know from experience and research also tells us, that it is in your best interest to be back at work as soon as possible. We understand that if you injure yourself at work, it leads to significant fear and feeling of injustice hurting yourself at the place where you should be safe from injury. During the rehabilitation phase of your management we will talk about functional rehabilitation – that means, in a safe controlled environment, we will introduce activities that replicate your work requirements and slowly help to build your confidence and fear less performing these work specific activities.

Recommended reading:

"Explain Pain"
Lorimer Moseley & David Butler

Dealing with pain? Book an appointment with Dr Neels Du Toit today using our online website form or call 03 9595 6111.