Persistent Pain

The concept of pain is complex and subjective to each person's experience. It is an unpleasant experience that we would rather all live without. But it is there to serve a vital purpose as well. It alerts our body to potential or actual dangers before you are even injured.
For pain to occur, the brain needs to make a judgement on whether the credible evidence of danger outweighs the credible evidence for safety.

Sometimes pain will persist outside the normal healing time of an injury, and this pain system between the brain and the body will become more sensitised. The body essentially learns to stay painful, even though the initial danger may have passed. Persistent pain has a major influence on both an individual and society, as up to 1 in 4 people will experience persistent pain in their lifetime.

E: admin@ibphysio.com.au | T: 02 9976 3540 | F: 02 9976 3290 | Suite 14, Level 2, 22 Darley Road, Manly, NSW 2095 Australia



Many myths and misnomers surround the concept of pain and healing, so to effectively manage pain, it helps if both health professionals and the community understand the current science and evidence surrounding pain. Watch this short video by renowned pain scientist Lorimer Moseley to kick start the journey, and we will elaborate on some of the important points.

https://www.youtube.com/watch?v=ikUzvSph7Z4#action=share

Amazing tidbits about pain

- Pain is not proportional to tissue

E: admin@ibphysio.com.au | T: 02 9976 3540 | F: 02 9976 3290 | Suite 14, Level 2, 22 Darley Road, Manly, NSW 2095 Australia

damage. You can have no tissue damage and still experience pain, or you can have a lot of tissue damage and feel no pain.

- Findings on imaging such as MRI, CT scan or X-ray poorly correlate with pain. The majority of findings on scans should be considered incidental.
- Pain depends on different factors (e.g. social, physical, contextual, emotional, biological). The brain weighs up all these factors and decides whether something will hurt.
- Pain can therefore be influenced by things you see or hear, what you think and believe, things you do or people in your life, as well as things happening in your body. E.g. Sometimes people with persistent pain only need to think about their pain, or see someone else perform the movement from their initial injury and their pain will increase
- This process in the brain can change over time. Imaging studies have shown that people with chronic pain presentations will have altered organisation and activity in the brain. Phantom limb pain after amputation is a great example of how the brain can change after injury. The brain sometimes still perceives that you have that limb and will ache accordingly
- The brain can also change for the better though, reorganising pathways linked to pain and dysfunction and creating new, healthy pathwys
- There are millions of sensors in the nervous system. They may be activated by thermal, mechanical or chemical stimuli. If a sensor is triggered, they can set off alarms which the brain will then interpret and act on. In those with persistent pain, these alarms are a lot easier to set off, increasing pain sensitivity. If sensitivity is high enough, then there doesn't even have to be a physical stimulus to experience pain.
- The immune system is a powerful component in the pain experience. In chronic pain states, the immune system can help or hinder your pain levels. Immune molecules/hormones such as cortisol, adrenaline or pro-inflammatory molecules can fire up your pain levels (notice how things are always achy when you have the flu or are more stressed at work?). On the other hand, molecules such as oxytocin and anti-inflammatory mediators can reduce your pain levels.

So, what can we do?

E: admin@ibphysio.com.au | T: 02 9976 3540 | F: 02 9976 3290 | Suite 14, Level 2, 22 Darley Road, Manly, NSW 2095 Australia

Management of persistent pain should always be individually tailored to the person as everyone's experience is different. Here are some important discoveries in pain science that have consistently found to be helpful:

- Education and the ability to act on new knowledge regarding pain is actually threat reducing, and we know that when there is less threat, there is less pain (so well done, what you have just read above has the potential to help alleviate some of your pain!)
- Overactive sensors change-over in the body every couple of days, giving us a window of time to help desensitise those alarms, and help decrease pain
- Practicing certain immune boosting behaviours can help dampen the chronic pain experience. Examples include:
    - Exercising and eating appropriately
    - Having strong family and medical support (a simple hug with a loved one releases oxytocin!)
    - Developing a positive belief system
    - Engaging in fun, meaningful activities
- Movement as therapy is a key foundation of pain management. Exercise improves the health of joints and tissues, creates healthier circulatory and respiratory systems, and releases important chemicals throughout the body (e.g. endorphins and oxytocin). It can also help re-establish and create pathways in the brain to help retrain previously painful movement patterns
- Pacing and graded exposure to activities is an important management tool. People with persistent pain often avoid painful activities because they believe they are causing further harm. But we know that pain and tissue damage do not relate, so you can be 'safe but sore'. Effective pacing and graded exposure will include:
    - Deciding on the activity you want to do more of
    - Finding your baseline I.e. the amount of said activity without a flare up
    - Planning your progressions
    - Avoid flare ups where possible – but don't freak out when you do, as you now know this is just your overly sensitive nervous system trying to protect you

E: admin@ibphysio.com.au | T: 02 9976 3540 | F: 02 9976 3290 | Suite 14, Level 2, 22 Darley Road, Manly, NSW 2095 Australia

Take home messages

Pain is normal, personal
and always real. People that live with
this pain daily have a multitude of coping mechanisms, and our aim is to provide
you with some different ideas and a new way to think about your pain. With this new understanding of pain comes some hope that we can help you get back to achieving what you want out of life.

Please find below some
helpful resources if you want to do some further exploring in this world of
pain science.

- https://noijam.com/
- https://www.tamethebeast.org/
- https://mindspot.org.au/pain-course

Article by Kieran Watson

E: admin@ibphysio.com.au | T: 02 9976 3540 | F: 02 9976 3290 | Suite 14, Level 2, 22 Darley Road, Manly, NSW 2095 Australia