The brain, pain, and body connection

A LITTLE ABOUT PAIN

Pain is a physical, sensory, and emotional experience.

Pain is an output that is produced by the brain to protect us from harm or potential harm.

Our tissues should generally heal from an injury in 8-12 weeks. If the pain goes on past that point it may be a pain system problem. 1 in 4 people continue to have pain after tissues have healed. We call this persistent pain.

In people with persistent pain, the brain and nervous system can go into overdrive and become super-sensitive, this is called 'central sensitisation'. The immune system is also thought to be involved in this process.

A super-sensitive nervous system and immune cells (called 'glia') release chemicals which 'turn up the volume,' increasing the number of connections and signals whizzing around in the brain and spinal cord.

When the volume is 'turned up' pain may be felt during activities and movements that should not normally provoke pain. This may also mean that just thinking about activities or movement may cause pain.

PELVIC PAIN

Pelvic pain is complex condition that involves the nervous system, hormonal changes, organs in the pelvis and the support muscles. Acute exacerbations (flares) of pelvic pain are common and common triggers are;

- Pelvic muscle spasm
- Menstruation or breakthrough bleeding
- Constipation
- Urinary tract infection/Bladder pain



WHAT WE CAN DO TOGETHER TO HELP

- Pain management can use helpful neuroplasticity to help reprogramme the way the nervous system responds to danger signals and how the brain interprets this as pain.
- The aim of pain treatments is to reduce central sensitization, decrease pain, favour normal movement and daily activity and restore well-being.
- Choosing movements that are pain free can help re-pattern/ desensitise the nervous system
- Because pain is a SENSORY and EMOTIONAL experience, we have to think about the management of pain as more than just the physical aspect or as having an issue with the tissue.
- Sometimes these triggers are unavoidable. Sometimes you will be able to identify them, and other times maybe not.
- Over time it is our aim to help you to identify and name your symptoms, but to also help to regulate and calm down the nervous system.

- Even though the pain may be related to a trigger, it always involves your brain.
- By being in control, calm and knowledgeable, you are not discounting that there is something going on, but you are also not 'catastrophizing' that it is something major to get worried about as this will increase your levels of pain.
- Reducing the fear associated with pain, can help to reduce the tension response.
- Develop a 'tool kit' of responses that may assist you in managing your symptoms.
- There is strong evidence from neuroscience studies that suggests naming or verbalizing difficult feelings decreases some emotional reactivity.

MOVEMENT, MINDFULNESS, BREATHING AND YOGA

Tonight, we will discuss some of the calming strategies you have available to you and how these play a role in regulating your nervous system.

Use your calming strategies such as guided meditation and breathing. Start with 5-20 minutes every day.

Little moments throughout the day add up, and can make a big difference.

Learning to relax is a learned skill, so regular practice outside of flares is important.

These strategies can play a role in managing your pain, but also in managing stress and anxiety.

There are many guided apps and websites. Scan the QR code to find a selection.



Breathing Awareness

- Breathing awareness is important. By manipulating our breathing we can often calm our nervous system as well as increasing the mobility throughout our ribs, diaphragm and abdominal wall.
- This can also help take us out of the 'flight or fight response'.
- Focus on relaxed diaphragmatic breathing: close the mouth, teeth apart and raise the tongue to the palate. Use your hands on your tummy and lower ribs to feel the depth of the breath into your lower tummy.
- You could also try alternate nasal breathing to slow your breathing and relax the body. Aim to continue for 5-10 minutes, refocus if your thoughts interrupt and carry on.

Mindfulness and Meditation

- Mindfulness is about being here, now. It is about being 'present' or in the moment. While the idea is really quite simple, embodying mindfulness is not always easy.
- The practice of mindfulness meditation is about stretching out these moments of present-focused awareness by training our minds to keep coming back to what is happening right now. People describe it as shifting out of the 'doing' mode and into the 'being' mode or switching out of autopilot.
- Practicing mindfulness meditation helps bypass some of the worries and frustrations that creep in when you are in pain.
- Research shows that practicing mindfulness meditation can be helpful for people with persistent pain, with a moderate effect in reducing pain intensity.

PRACTICE POINTS

- Scan your body for areas of tension and imagine them softening, like a block of ice melting or a flower opening.
 Try and imagine the tension spreading and diffusing, like steam in a room.
- Imagine breathing into and out of areas where you feel tense, as if you're breathing through the pores of your skin rather than your nose. Visualise your breath spreading to the areas of your body that are tense.
- Be patient and kind with yourself rather than trying to force relaxation. Trying too hard or striving to reach some special state of relaxation can put you under pressure, which makes it even harder to relax. It is OK to have this as a strategy that you come back to and gradually work on.
- One of the most powerful things that meditation can teach
 us is how to be a better friend to ourselves. It is important
 to allow our body and mind a little compassion, especially
 when it has been dealing with years of pain or trauma.
- Meditation helps to tune in to a kinder, more friendly way
 to relate to ourselves. Research shows that stoking the fire
 of self-compassion not only warms the heart, but it also
 helps with pain.

Yoga

- Yoga is a unique practice which works on the connection between mind and body. When yoga techniques are practiced
 there are positive effects on our nervous system. Research tells us that body releases less stress hormones and the
 "relaxation response" can be initiated.
- Yoga uses stretches, balances, breathing techniques and relaxation practices to achieve this.
- Yoga can be helpful in addressing some of the movement-related aspects of pain that can contribute to a pain experience, for example, tight muscles and stiff joints.
- Regular yoga can help to release tension in the body, improve mood, immune system function and help you feel good.
- Research suggests that the positive impact on mood and mental health is one of the primary ways yoga works to improve
 your day-to-day function, moderate pain, and mood.
- Exercise in general can also deliver similar benefits to your health and wellbeing. It is important to experiment with different types of movement and exercise to find something that feels good.
- Exercise and movement can be used as 'medicine'. Sometimes we need to adjust our movement and activity levels to meet our body and mind at the point where they are at.



Visit our website for more information about Pioneer Pelvic Pain Clinic and links to resources which you may find helpful. Scan the QR code or visit pioneerpelvicpain.com.au



