### Helping your brain to feel safe

When your brain feels safe it's less likely to produce persistent physical symptoms (PPS). We would hope these techniques would help improve your symptoms and help you to lead the life you want to.



### How to change your relationship with PPS

**Searching for exceptions** - Making evidence sheets – FIT - functional, inconsistent, triggered Sometimes when we present our symptoms to a health professional, we can see they look puzzled. Health professionals are taught about the body in a biomedical way and will often approach your symptoms thinking about the anatomy of the area, the nerve distribution, what organs, muscles, ligaments are in the area you are describing. This way of approaching making a diagnosis is called a using a medical model. But the human body isn't that simple. We can't always explain what's going on using this model.

Making evidence sheets can help in a more holistic approach to a diagnosis – which includes the mind and the body in the explanation. We can split these into 3 areas using the mnemonic FIT Functional, Inconsistent, Triggered. Let's look at these individually by asking some questions, though there is some overlap. This is not just about gathering evidence, you are also reinforcing that the problem isn't explained locally but is about the mind and body interacting through your nervous, hormone and immune system.

### Functional

Do your symptoms begin without a physical reason? For example, do you wake up with your symptoms?

Do symptoms persist after an injury has healed or start without an injury?

Do your symptoms occur on one side of the body?

Do they spread over time to different areas of the body?

Do they radiate to the opposite side of the body, or affect a whole limb?

Do symptoms occur in many body parts at the same time?

Do symptoms have the quality of tingling, electric, burning, numbness, hot or cold?

If you've answered yes to any of the above this is unusual for specific nerve lesions and would point more to a neural circuit problem involving the brain.

### Inconsistent

Do your symptoms shift from one location in the body to another?

Are your symptoms more or less intense depending on the time of day, or occur first thing in the morning or the middle of the night?

Do your symptoms turn on or off at random?

Do your symptoms occur after but not during activity of exercise?

Do your symptoms occur when you think about them or when someone else asks about them? Do your symptoms occur when you have more stress in your life, or when you think about stressful situations?

Do your symptoms improve when you're engaged in joyful or distracting activities? E.g., when you're on holiday?

Do your symptoms improve after you've had some therapy – such as massage, acupuncture.

If you've answered yes to any of these this would indicate more a neural circuit problem involving the brain rather than a localised tissue damage reason for your symptoms.

## Triggers that have nothing to do with your body

Have you noticed that your symptoms get triggered by any of the following (that have nothing to do with your body)

Foods Smells Sounds Lights Computer screen Periods Changes in the weather Light touch, innocuous stimuli e.g., the wind, cold. Anticipation of stress such as prior to school, work, a doctor's visit, a medical test, visit to a relative, or a social gathering, or during those activities.

Again, if you have answered yes to any of the above this indicates a neural circuit disorder.

Why not put this to the test – Imagine engaging in an activity that would usually bring on your symptoms e.g., bending over, sitting, standing. If you get pain doing this then that confirms this is a neural circuit problem – the symptoms are coming on and you're not physically doing anything, you're not aggravating anything locally to cause the symptoms – it's your brain that's producing the symptoms through nerve circuits. Just as your brain learns your timetables, learns to ride a bike, the same process happens with a nerve circuit disorder. This video illustrates how this learning happens – the process is called neuroplasticity.

The Backwards Brain Bicycle - Smarter Every Day 133 - YouTube



By going through these FIT questions this gives your brain a feeling of safety – it knows that localised tissue damage reasons for your symptoms wouldn't present this way. If your brain believes that the problems is structural it's hard for it to feel safe when you get symptoms, if you think you're causing physical damage every time you sit, walk, type or do exercise. If you answer yes to any of the questions above this confirms to your brain that it's nerve circuits and even better, we can do something about it. If your brain can give you pain it can also take it away. If you can embrace a different belief – that pain is due to your brain making a mistake and your body is fine not damaged, the fear goes away – the pain fades. It's a false alarm.

### Using avoidance behaviours

Using behaviours that have worked for you in the past can be an effective tool for overcoming fear. E.g., having a massage, taking a hot bath, stretching.

If you're having high levels of pain, it's difficult to do somatic tracking (discussed later). Engaging in avoidance behaviours at this stage can help to minimise setbacks e.g., standing up, sitting down, using a pillow, hot water bottle. Do what ever you need to do to feel more comfortable. Don't push through your pain – this will just put your brain on high alert and reinforcing that your pain is dangerous. Send your brain some messages that everything is going to be ok – I'm safe and my body is fine. My brain thinks I'm in danger but it's a false alarm. When you start to feel better again then take the opportunity for corrective experiences with somatic tracking.

**Somatic tracking** – this is where we mindfully attend to the physical sensations in our body. It's a way to track physical sensations in our body with a new lens. It allows us to gradually change the way our brain interprets these sensations. We can use this process to investigate our pain without fear. It's a direct way to confront fear. Instead of running away you embrace it, leaning into fear. This action alone communicates a message of safety and helps to deactivate our brains pain signals. When you're in pain, view it as an opportunity to change your relationship with it and welcome that your brain is telling you it's not happy and giving you a chance to explore that. It's an opportunity to have corrective experiences – exposure with a sense of safety not fear. It's an opportunity to rewire your brain. It's just your brain overreacting to neutral safe signals from your body. Bring it on! But it needs to be your authentic self-thinking this – empowerment like this isn't for everyone. There are 3 components

1.First component is mindfulness – paying attention to pain with no agenda and no judgement – i.e., observing it without fear – which increases a brains feeling of safety by deactivating the fear circuits.

2. Sending messages of safety to the brain- safety reappraisal – again reducing fear 'I'm sore but safe'

3. Observe our physical sensations with lightness and curiosity (using humour). The goal isn't to get rid of the pain – whatever happens to the pain happens. Do it when you want for as long as you want. Don't pressurise yourself to do this – this will add to your brains feeling of being unsafe.

**Reducing over stimulation** – Being over stimulated with work, overusing technology etc causes your brain to feel on high alert. If you recognise this, you will be able to keep your brain in a calmer state and reduce your pain. Try and recognize behaviours that needlessly put your brain on high alert and do them less. Be patient though – it takes time to change old habits

**Avoiding feeling trapped** – when your pain level is high make sure you are in a position to do your avoidance behaviours (see above). Feeling trapped injects extra danger into your brain. Even just knowing you can do these is enough to help you feel calm and safe. Is there a way to avoid situations where you feel trapped by your pain or at least minimise them? When we are trapped in situations, we can't get out of we can use safety reappraisal and send ourselves messages of safety.

**Handling uncertainty** – either way everything will be fine – it's a type of cognitive soothing (see below). Agonising over a decision puts the brain on high alert. Being able to handle uncertainty is a type of safety reappraisal. Most of the things you worry about never happen and often when you stop worrying you allow your life to unfold in ways you never could have imagined. Comforting your brain by letting it know it's going to be ok either way lets your brain know you're not in danger.

## **Embracing positive sensations**

Positive emotions make you feel happy and safe. They calm your brain and put you on low alert. Positive emotions soothe your pain. The more you do this the easier it gets 'neurons that fire together wire together'. Sun on skin, breeze against my face, feeling my breath rising and falling. You don't need to do anything extra – take advantage of the sensations that are already there – the feeling of a hot shower, water hitting your skin, take a few moments to enjoy your breath flowing in and out. Bring your attention to a sensation that feels good.

**Outcome independence** – feeling successful regardless of outcome. A good way to approach somatic tracking (see above). Rather than a means to an end – to get rid of the pain. Practising this in the short term helps you to achieve your long-term goal.

**Catching your fears** (It may not be fear - frustration, despair, annoyance – anything that puts you on high alert) – the triad of worry, pressure, criticism. Don't approach this with a sense of pressure or urgency – this will put your brain on high alert. Fear thoughts are trying to protect you. Fear is a fuel for pain.

- 1. Notice the fear thought
- 2. Don't buy into it let it go. Byron Katie The work can help with this 4 questions and turn it around. <u>The Work of Byron Katie</u>
- 3. Send yourself a message of safety a quick dose of positivity. 'There you go again brain'.

Using this 3-step process lowers the danger level in your brain. Less danger = less pain. It will take some practice and don't beat yourself up for not catching a fear thought – that's just another criticism. All self-criticism comes down to the same idea – 'There's something wrong with me'. We want to counteract this with a message of safety 'There's nothing wrong with me. I'm ok the way I am.'

I need to do this or else – the 'or else' is the kind of thing that fills your brain with danger. Live demonstration - sensory reprocessing - YouTube **Self-compassion** – saying no to something is saying yes to you. Make these changes because you deserve to be treated with kindness and respect. Don't make these changes just to get out of pain. Feel proud that you're treating yourself nicely.

**Cognitive soothing** – Think of a positive affirmation that has meaning for you 'It's going to be ok, you're safe, these feelings will pass. You are ok'. The more we give ourselves these messages when we're in pain, feeling in fear or even when we're doing ok, the more we are able to internalise it. This conveys a message of safety to the brain through the mind.

**Sense of empowerment** – We need to experience the feeling of success. Empowerment is the opposite of fear. Our brains are not discerning. We can get a sense of accomplishment from anything. Generating small wins throughout the day can release dopamine in your brain and help to develop neural pathways associated with empowerment. It doesn't matter how small the win is. It could be catching a fear thought, doing the laundry, running on the treadmill for 10 minutes – allow yourself to celebrate that accomplishment. It involves a sense of joy not frustration, a sense of liberation not strain.

**Recognising conditioned responses** (your brain connecting a physical symptom with a neutral trigger – e.g., when I bend down to put the washing in the washing machine I get back pain – it's not the bending causing the pain but the association the brain has made with the activity – what we know about cause and effect makes it difficult for us to not associate the activity with the symptom). So, our brain interprets a safe behaviour as if it is dangerous. Conditioned responses can be good and protect us from repeating dangerous behaviours.

**Extinction bursts** – where the pain may not give up without a fight – you may experience a worsening of symptoms before it gets better, or the pain may move – the key is not to fall back into the fear trap. The burst will pass. Fear has been part of your life for a long time and your brain will be tempted to pull you back to that familiar state. That is expected in recovery. You can get sucked back in or laugh and say, 'I know what you're doing – bring on the extinction burst!' Remember extinction bursts only happen in extinction so it's a positive sign. It's a sign that you're on the right track.

What might be the problem	Solution
What do you believe is the source of your symptoms? Do you still think it's something structural, that something has been missed? It's hard to feel safe if your brain believes there's something structurally wrong with you. Do you trust your body? Is it still a source of danger?	Go back to the FIT questions (Functional, inconsistent, triggered) to explore any anomalies. You need to change from treating your body as an enemy and instead see it as a ally. The more you practice this the more automatic it becomes.
Are your symptoms so bad you're having to use <b>avoidance behaviours</b> all the time rather than practicing somatic tracking and having corrective experiences?	Using avoidance behaviours is fine to do when your symptoms are bad. Remember to not beat yourself up about it if you need to use them. The purpose of them is to help your brain to know that there's something out there that is going to help whatever it is and this can give it a sense of safety.

# Why are you not making progress?

	When your symptoms aren't as bad use this opportunity for practicing somatic tracking (see sway 5 for details). But ensure you're going to have a corrective experience and not retraumatizing your system.
Have you addressed your <b>high alert</b> habit? Are you prioritising making your life feel safer and more peaceful throughout the day? Are you being hypervigilant - continuing to scan for problems in the body?	Recognise things that put your life on high alert - they may not be just external things like your phone or work but things internally like your personality traits. For things externally try to reduce/minimise them. Do the reverse of the tiny habits formula to reduce the likelihood of retaining these as habits (for example make them harder to do, get rid of the prompts).
How do you feel when you experience persistent physical symptoms? Do you view it as an <b>opportunity</b> or a <b>catastrophe</b> ?	Viewing symptoms as an opportunity changes your relationship with it and the fear associated. If you didn't have the symptoms you wouldn't have the opportunity for corrective experiences through somatic tracking. View them positively - your brain's trying to tell you something. You need to listen. This will convey a message of safety to the brain.
Are you doing these techniques expecting an <b>outcome</b> ? Are you expecting your symptoms to go away?	Remember <b>outcome independence</b> - doing an activity regardless of outcome. Remember if you increase pressure on yourself by expecting an outcome this will put your brain on high alert. Remember you're a passenger, observing, not expecting anything. This will give your brain a sense of safety.
<b>Conditioned responses</b> . Are you challenging everything you've learnt about cause and effect and embracing a perspective that's inherently counter intuitive?	Keep searching for the exceptions with the FIT (functional, inconsistent, triggered) questions. It is hard to hold on to this evidence when we have persistent physical symptoms. But the more we do it the more we're teaching our brain that it's safe. When you're able to teach your brain that these physical sensations are not dangerous, the symptoms begin to fade.
Are you struggling to catch your <b>fear</b> thoughts?	Remember the 3 steps 1. Notice the fear thought 2. Don't buy into it 3. Send yourself messages of safety 'There you go again brain!' By not buying into them you take away a little negativity and sending messages of safety you add a little more positivity. Your automatic fear

	thought becomes less automatic and your brain will gravitate towards positive thoughts which equals a calmer safer brain.
Are you approaching this from a place of compassion and care? Or is it because you're supposed to? If you struggle with the techniques, do you beat yourself up or respond with patience and sympathy? 'You need to do this or else'	When we scare ourselves, pressurise ourselves or criticise ourselves it can activate our brains signals and cause persistent physical symptoms. Doing these techniques needs to come from a place of <b>enthusiasm</b> , <b>joy or self-care</b> and not a place of crushing uncompromising pressure . You can learn to feel compassion for yourself the more you do it.
Are you doing enough that's <b>100% about your joy</b> ?	Remember the quote it's not when your persistent physical symptoms go away you'll enjoy life more, it's that when you enjoy life more your persistent physical symptoms will go away. Focus on the positives and they will them become the default.
Could a flare up of my symptoms be an extinction burst?	Remember symptoms that you have had for a long time that are reinforced are not going to give up without a fight. If your symptoms worsen, move or change it could be a positive sign - that you're on the right track. Don't fall into the trap of negative thought patterns like problem solving, preoccupation, intensity, worry, pressure, criticism. This will fuel the fear. See the relapse as an opportunity to change your relationship with the symptoms and the fear associated.
Are you getting enough experiences of empowerment?	The brain isn't discerning, even small wins can give you a feeling of empowerment. Use your knowledge of tiny habits to make some small changes in your day. Remember behaviour change = a combination of motivation/ability/prompt. Whatever change you choose make it an easy thing to do so you're not relying on your motivation and attach it to a prompt - something you do every day like boiling the kettle, flushing the loo.
Is your brain struggling to <b>let go</b> of your symptoms? Is your brain worried you're going to go back to living in the same fast paced way and too scared to let go?	Sometimes your unconscious will hold on to your symptoms, reinforce your sense of self, looking for evidence to back up this identity. By using cognitive soothing, somatic tracking - both forms of safety reappraisal - will reassure

	your brain it can trust that you're ready to make an authentic change of putting yourself on your list of people to take care of.
Do you need to do some more work looking at your <b>personality traits</b> ? Have you got a balance with these now? Do you authentically feel • You need to take time out for your enjoyment • You don't have to be perfect • You don't have to be self-critical	Look at your enormous achievement and what you've survived. What activity are you doing that's of no other purpose than your own joy? What do you want to do - travel, read, write, spending time with different people, being curious, experiencing awe.
Have you addressed the behavioural patterns that would put your brain on high alert? • Problem solving • Preoccupation • Intensity And the triad of worry, pressure and criticism?	There will be a time and a place for these. The secret is recognising when they serve you well and when they don't. Are you practising stillness and calm so you're not scaring the hell out of your brain?
Do you have <b>triggers</b> currently in your life that are setting off your symptoms? • Life stressors • Good things happening • Ongoing interactions with ACE perpertrators These will all out your brain on high alert.	Look again at the writing exercises in the previous sway. When life gets stressful prioritise your needs. Make sure you're depositing into your system (good diet, exercise, sleep, positive social contact, spending time in nature, mental excursion into a good book or film) and limiting if you can your withdrawals by being more boundaried. Consider psychological therapies.
Have you addressed <b>negative emotions</b> that you learnt were dangerous to express as a child?	Sit with the unpleasant feeling. How we feel is a sign that our body budget is in overdraft. Ask am I getting enough deposits. Am I having too many withdrawals? How do I get better at balancing my body budget so that I can move to the right of the affect circle into the pleasant side? Increasing our emotional vocabulary can help - by watching a scary movie, reading a stimulating novel, filling your brain with other interpretations of your basic feeling of affect can be helpful. Consider writing exercises (unsent letters, dialoguing etc) Consider psychological therapies.

The 3 stages of relapse

- 1. Panic when you're scared it's difficult to notice the pain with lightness and curiosity, difficult to do somatic tracking and have a corrective experience. Focus on sending your brain messages of safety.
- Forcing it You're doing it all but with the wrong mindset with an undercurrent of desperation and pressure not self-compassion and lightness. So, none of it works. The brain needs to feel safe – not just with the techniques but the spirit behind the techniques. The frustration stage.
- 3. 'Oh yeah, this is how it works' doing the right things with the right energy. Your brain learns that it's just a false alarm. The sensations it's misinterpreting are safe.

And you have to go through all 3! It can hours to weeks to go through. It will have a happy ending. Resilience – when the going gets tough the tough get going. When you have a set back it's easy to get sucked into hopelessness and despair but giving yourselves messages of safety helps to protect against those feelings. The more you recover the greater your belief in your ability to recover.

The hard part is remembering to use these techniques. When you don't have pain as a reminder it's easy to fall back into the old way of doing things. So even when your pain has gone keep taking care of yourself. You need to use these techniques regularly to maintain a pain free brain. Pick one or two at resonate with you and link it to something you do everyday as a prompt – e.g., boiling the kettle, flushing the loo.

Instead of worrying about not being 100% pain free, look on pain as a helpful reminder highlighting something that you might not otherwise have seen.

No one else is going to be able to fix this for you – this is your brain making a mistake and your brain has the power to fix it. Everyone has the power to fix their own pain. These are the tools to heal yourself.

Be patient with yourself, it takes time to form new habits and practice to develop pain free pathways. Each setback is an opportunity for resilience, each twinge is an opportunity for a corrective experience, each fear is a chance for a message of safety.

We have reached the end of this sessions but for you this is just the beginning. The way out of pain starts now.

Trust in your capacity to change.