



PAINLESS

A Guide to Bioplastic Pain

www.painless.health | Perth Clinic, Australia

PART ONE

What is pain?

While pain is felt in the body, it isn't created there.

Pain is created in the brain. It is an output that's the result of processing in your nervous system.

Information from all around your body is reported to the brain every second. Based upon this information, as well as prior knowledge, your brain decides if a situation is safe or dangerous.

If your brain believes you are safe, it will calm the incoming messages and go about its business.

However, if it does perceive the presence of a threat, it responds by creating pain.

Pain is your brain using your body as a warning system.

Pain tells you something may be unsafe, and you need to protect yourself.



PART TWO

Pain types.

There are three primary types of pain.



NOCICEPTIVE PAIN.

The most common form of pain is nociceptive pain.

Nociceptive pain occurs acutely, following damage to your body tissues.

Say you trip and sprain your ankle. The ‘hurt’ you feel warns you of the harm to your ankle – and, in most cases, the level of hurt is appropriately proportional to the level of harm.



As the tissue damage is healed, nociceptive pain will subside.

It only lasts as long as needed for the tissues to be repaired.

NEUROPATHIC PAIN.

The next pain type is neuropathic pain.

Where nociceptive pain warns of harm to your body tissues, neuropathic pain warns of harm to your nervous system itself. It occurs when nerve tissue is damaged, compressed or inflamed.

Damaged nerve cells tend to misfire – reporting abnormal danger signals to the brain. This means the level of ‘hurt’ you feel may be disproportional to the level of harm.

Like nociceptive pain, neuropathic pain will naturally subside when the physical damage is healed.



BIOPLASTIC PAIN.

Finally, there's the third pain type – bioplastic pain.

Bioplastic pain is more complex than its counterparts. It involves the production of pain sensations that are disproportionate to, or even completely independent of, physical harm as a stimulus.

It is the primary driver of persistent pain – pain lasting more than three months – and our area of expertise here at Painless.



PART THREE

Bioplasticity.

You may have heard of neuroplasticity – the ability of the brain to change and adapt throughout your life – but neuroplasticity is just one piece of the pain puzzle.

Every system of the body is plastic – that is to say, every system of the body can change and adapt, based on your life experiences and environment. We refer to this process as ‘bioplasticity’.

DEFINITION

Bioplasticity

1. Literally, 'life' 'changeable'.
2. The ability of the body to change and adapt in response to its environment and experiences.

Bioplasticity is your body's way of keeping you strong and resilient, while protecting you from harm. Muscles strengthen when exposed to exercise. Immune cells become active in the presence of a pathogen. And the brain produces pain, in response to perceived threat.

These are all examples of bioplasticity in action. They are all protective multi-system changes.



PART FOUR

Bioplastic pain.

Bioplasticity also has a dark side. It is the reason acute pain may sometimes persist, becoming chronic.

DEFINITION

Bioplastic Pain

Pain driven by maladaptive bioplasticity (overprotective body system changes).

When exposed to a significant threat, your bioplastic systems may become overprotective. Your body begins to amplify its many protective functions, especially, its ability to produce pain.

Overtime, the body systems spur each other on, each becoming increasingly vigilant and reactive to signs of threat. In this state, pain is more readily produced – even after the initial trigger is removed. The result is what we refer to as bioplastic pain.

If you have persistent pain – pain lasting longer than 3 months – some percentage of the pain is bound to have bioplastic origins. This is true regardless of your original medical diagnosis, threat source, age or overall state of health.

PART FIVE

Diagnostics.

Do you fit the bioplastic pain diagnostic criteria?

01

The pain is persistent – lasting more than three months.

02

The pain is disproportionate to, or independent of, tissue damage.

03

The pain is accompanied by a complex symptom profile.

04

The patient has experienced a significant 'threat' or stressor.

PART SIX

Solving pain.

‘Bioplasticity got you into this mess,
bioplasticity can get you out.’

– Lorimer Mosely and David Butler.

Just as your bioplastic systems can undergo maladaptive – health damaging – changes, they can also undergo adaptive – health recovering – changes.

Calming the hypervigilance and reactivity, adaptive bioplasticity returns your systems to a state of balance. It is the pathway to reversing the overprotectiveness of your body systems – and in doing so – reversing your pain.

Engaging your body’s adaptive bioplasticity requires a more comprehensive and personalised approach than standard medical care. This is what we – at Painless – as here for.

We integrate tailored medical treatment, multidisciplinary care and active self-management strategies to provide you with a complete recovery plan for bioplastic pain.

REMEMBER: The tissue is not the issue.

Bioplastic pain is a poor measure of tissue health. This means the ‘hurt’ you feel does not equate to physical ‘harm’.