



## **Brain Changer 12 Week Pain Education, Activity Pacing and Graded Exposure Program**

In persisting pain conditions, tissue-based nociception is rarely a significant contributor to ongoing symptoms. The common approach of ‘blaming’ and ‘fixing’ discovered changes in regions of pain is problematic and is not encouraged by contemporary guidelines.<sup>1</sup> Instead, these conditions are characterised by an array of neurobiological maladaptations which include hyperexcitability of the central nervous system (central sensitisation).<sup>2</sup>

Exercise rehabilitation and normalisation of activity is recommended management but many struggle with pain and fail to progress. Combining meaningful pain education with exposure to challenging and fear-related movements, environments and activities is the foundation of a desensitisation program which aims to retrain and re-adapt maladaptive movement-related pain processes.<sup>2</sup>

Patient-led goal setting based on meaningful and valued tasks has the potential to add to the treatment effects of graded exposure therapy.<sup>3</sup>

**Brain Changer is a 12 week pain education, activity pacing and graded exposure program delivered via telemedicine and supported by the Brain Changer platform.**

## Brain Changer Pain Treatment Platform



Digital therapeutic platform for education and activity-based pain self-management and goal-directed activity planning.



Web-based app that is desktop/ laptop/ mobile compatible



Daily self-scoring system for danger/ safety balance that is associated with pain symptoms and impact on activities.



Enables tracking of functional change over time and correlated with goal achievement.

The Brain Changer program includes 12 hours of coaching from a dedicated Physiotherapist or Occupational Therapist trained in pain science.

## Coaching Schedule

Coaching delivered by qualified health professional trained in providing structured coaching via telemedicine.

Week 1-3                    2 x 45 minutes coaching/ week

Weeks 4-6                    2 x 30 minutes coaching/ week

Weeks 7-9                    1 x 45 minutes coaching/ week

Weeks 10-12                1 x 30 minutes coaching/ week

The Brain Changer Physiotherapist or Occupational Therapist also establishes feedback loops with insurers, workplace and others involved in care, to enable greater support for return to work and life goals.

Cost for the 12 week Brain Changer program: \$3,000 (GST ex.) per patient.

Our Clinical Director, Lissanthea Taylor, provides an overview of the program in [this video](#). **Inclusion and exclusion criteria are provided below.** You can also contact us for additional information at [info@brainchanger.io](mailto:info@brainchanger.io).

#### **Inclusion Criteria**

Brain Changer is suitable for people that meet the following criteria:

- Presence of persisting pain for more than three months, accompanied by disability and distress as measured using standardised tests such as the Pain Self-Efficacy questionnaire or the Pain Catastrophisation scale

**OR**

- Screening tests for early intervention (e.g. Startback) indicate educational/ behavioural support required for good return to work outcomes

**AND**

- Patient not progressing in return to work goals due to fear avoidance and worry about increasing injury with upgrading
- The patient is willing to participate in a digital, telehealth program run by a remote coach
- The patient is over 21 years of age

#### **Exclusion criteria**

The presence of the following criteria would exclude someone from successfully engaging in the Brain Changer program:

- A limited life expectancy or rapidly deteriorating disease or condition
- The patient is unable to communicate in English
- Psychosis, cognitive impairment or cognitive decline
- The patient has declined participation
- The patient is unwilling to use digital tools and to communicate via email

#### **Factors that need to be resolved prior to attendance**

These factors require further medical/multidisciplinary intervention, and do not exclude participation in the program, however Brain Changer would require close integration into an existing care team approach.

- Primary drug or alcohol problems

- Psychological/psychiatric problems which require urgent attention, or have not been stabilized with medical/psychological interventions
- Suicidality

**Other factors that will be considered which are not necessarily exclusion factors**

These barriers to change may affect an individual's ability to engage with the self-management and physical upgrading components of the program and may require additional support to enable successful clinical and functional outcomes.

- Ongoing litigation which may impact the ability to participate in active upgrading programs
- The individual is assessed to be poorly motivated, and without desire to engage in a behavioural program

1 What does best practice care for musculoskeletal pain look like? Eleven consistent recommendations from high-quality clinical practice guidelines: Systematic review. Lin et al. (2019). British Journal of Sports Medicine.

2 Exercise therapy for chronic musculoskeletal pain: Innovation by altering pain memories. Nijs J et al. (2014). Manual Therapy.

3 Goal setting practice in chronic low back pain. What is current practice and is it affected by beliefs and attitudes? Gardner T et al. (2018). Physiotherapy Theory and Practice.



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