A little bit about Parkinson’s disease...

Parkinson’s disease (PD) is a progressive neurodegenerative disease which affects the part of the brain responsible for initiating and coordinating movement. Over time symptoms worsen, leading to severe disability caused by tremor and muscle stiffness, slow movement and impaired balance. This can impact on everyday tasks such as walking, talking, swallowing and fine motor skills such as writing and doing up buttons.

Parkinson’s disease is typically diagnosed clinically through observation – this means that your doctor or neurologist is basis their diagnosis on the fact that you present with some cardinal features of the condition. You may present with several or just one of these symptoms: stiffness in the muscles and joints called rigidity, tremor, and slow and small movements called bradykinesia. Everyone with PD is different, and you will have a different journey to the next person, however, what is likely to be similar is how the symptoms of PD affects your movements. In particular bradykinesia and rigidity, this means you may experience difficulty generating the correct amount of motor output required to drive ‘normal’ movement. This is typically evident to people when they start having difficulty with fine movements such as handwriting or doing up buttons, lose their arm swing when walking or develop a stiff rigid posture.

This change in movement manifests itself specifically when there is a loss of dopamine produced in a particular part of the brain called the Basal Ganglia. The cells in the Basal Ganglia that produce dopamine are called the Substantia Nigra, and for reasons that are still unknown, in PD these cells start to die off. As less dopamine is becomes available, other never cell in the pathway fire erratically causing tremors or difficult initiating movement. The Basal Ganglia is roughly in the middle of your brain and you might like to think about it as your accelerator pedal – if you have less dopamine in your system your movements become smaller and slower and with less control (tremor), like talking your foot off the accelerator. That is why dopamine replacement medication help to put your foot back down on the accelerator and helps to drive ‘normal’ motor output.

As PD progresses, more and more of the Substantia Nigra cells die, leading to increased difficulty of movement and behavioral and cognitive change. At present, medication is able to replace the dopamine deficiency in the system, however, to date it has been unable to protect the dopamine producing cells form further destruction. Therefore, medication only has a small window of effect before there are no longer enough receptor cells to receive the simulated dopamine.

Due to the progressive nature of cell destruction in PD, a new light has been shone on neuro-protection. Strategies known to protect remaining dopamine producing cells, slow the destruction of more cells and enhance the brains natural ability to re-wire itself to increase efficiency of the viable networks and pathways are at the center of finding a cure for PD. Until recently, it was thought that this progression of cell death was irreversible and could not be
slowed. New evidence shows us that now although PD cannot be cured, there lies the potential for the progression of the disease to be slowed, stopped or clinically reversed in the early stages of the disease.

Pd Warrior is a unique approach designed to treat the primary impairments of PD directly. We teach you how to use it to improve it. PD Warrior instructors focus on the principles of neuro-protection and neuroplastic change, which are both terms that relate to the brain’s natural ability to protect itself from cellular destruction and re-wire itself to be more efficient. Both of these strategies can help you to slow down the clinical development of symptoms related to PD.

What is PD Warrior?

PD Warrior is an Australian treatment approach that uses intensive exercise to ‘re-wire the brain’ of people with Parkinson’s disease and slow the disease progression.

PD Warrior has been described as a “game changer” in how Parkinson’s disease is treated. For many years there has been little physiotherapy treatment given to people with PD. Traditionally, management of Parkinson’s disease primarily relied on the use of medication in the early stages and then the introduction of movement strategies and falls prevention techniques in the later stages of the disease when balance and mobility become problematic. The PD Warrior program has been designed specifically to treat the symptoms of PD and is modelled on recent scientific evidence that supports the introduction of specialist rehabilitation exercises from the time of diagnosis. The combination of challenging, high intensity, purposeful movement and cognitive activity has been shown to combat the loss of motor control and improve mobility, function and confidence levels in people with PD. The keys to achieving this include being consistent and using the right prescription of exercise.

PD Warrior is not the same as going to the gym or a personal trainer, it is specific to PD symptoms and if you are not doing a similar combination of exercises then you will not get the same neuroplastic and neuro-protective changes. PD Warrior aims to change the current model of care by delivering specific rehabilitation exercises as early intervention medical management, immediately following diagnosis and throughout the course of the disease.

PD Warrior should be challenging, both for your body and mind. The exercises are graded in three levels; Level 1 – this is where you get used to the exercises and the principles of PD Warrior. Level 2 – you are familiar with the exercises and now can start applying the principles of PD Warrior. Level 3 – you have mastered the exercises and can increase the complexity by adding a mental task. If you can do level 3 without compromising the motor component of the exercises at level 2 then you will become a black belt in PD Warrior!
What about Medication?

Medication has an important role to play. It is important to understand that PD Warrior is not going to replace medication, rather be used in conjunction with medication for greater physical outcomes.

**How is the PD Warrior Program run?**

PD Warrior has been designed primarily as a circuit class however to get the most out of the circuit class we find that most people need a few individual sessions before they start the class. PD Warrior is not just about turning up to your sessions once a week, it is just as important to complete the program at home each day. Your PD Warrior instructor will go through the exercises with you and help you to set some personal goals to keep you on track and ensure you get the most out of your program.

**Initial assessment**

It is essential that everyone is fully assessed before commencing any PD Warrior program. This is to ensure that we know about your full medical history, any injuries or complications and any precautions to exercise. It also helps us to work out what your main difficulties are and set some personal goals with you.

**Introductory/Private Sessions**

These sessions are 1:1 sessions with a PD Warrior physiotherapist to get you started on the PD Warrior exercises. These sessions can also provide some extra help and feedback if you are finding the exercises particularly difficult, or if you have other medical issues that need to be closely monitored. It is important that you know how to do the exercises properly in order to get the most out of the program. If you suffer from falls, freezing or difficulty with mobility then Private Sessions may be the most appropriate option for you.

**PD Warrior Circuit**

Participants can join this class once that have completed an initial assessment and introductory sessions if advised by their physiotherapist. The PD Warrior circuit is a high effort, challenging program. It is made up of a number of stations with various high intensity exercises and mentally challenging activities. These exercises are specifically designed to slow the progression of PD. PD makes your movements small and slow, therefore PD Warrior exercises make you movements BIG and FAST. There is lots of different and unique equipment used in a PD Warrior circuit, this, along with the social group environment makes the class fun for the participants and instructors alike. For the best outcomes the exercises are to be performed at 80% of you maximum effort, so it is hard work! The classes last for 1 hour and are conducted once a week.
Our classes have men and women of all ages and stages of PD. The one thing that everyone has in common is their determination to fight the symptoms of PD. PD Warrior brings together a community of like-minded individuals who feel they are no longer defined by their PD. To be a PD Warrior you have to want change and be prepared to work hard for it. PD Warrior is not for people who think it is a cure or a quick fix.

You do not need a referral from your doctor to participate in the PD Warrior program, however you will be required to have an initial assessment and program prescription prior to entering the circuit class.

For further information or to arrange an assessment please contact West Tamar Physiotherapy on (03) 6394 4111 or email admin@westtamarphysio.com.au
PD Warrior Price List

Initial Assessment $80.00
Individual Sessions $65.00
Circuit Class $30.00 per session

HICAPS Rebates Available

Enhanced Primary Care available at GP’s discretion (please contact West Tamar Physiotherapy for more information) GAP fees apply.