# Perceiving Parkinson's

## Mind-Body Interventions In Parkinson's (Day 73)

There are dozens of ways for people with Parkinson's to manage their symptoms without relying on dopaminergic oral medications. Collectively, **mind-body interventions** focus on improving the mind, the body, or both; most of them take advantage of the cueing strategies we discussed earlier.

Many mind-body interventions have been studied in Parkinson's; it can be helpful to "rank" them by their supporting evidence. However, even if the evidence for one mind-body intervention is superior to the evidence for another, this does not necessarily mean the former is better - it may simply have been studied more. So, take the following discussion with a grain of salt.

That said, five mind-body interventions have **strong** evidence supporting them in Parkinson's:

(1) **Treadmill exercise** - Improves walking speed and stride length, and reduces falls, by focusing the person on walking. Numerous studies support treadmill exercise in Parkinson's. Treadmill exercises for people with Parkinson's are held **weekly in Hamilton**.

(2) **Aerobic exercise** - Exercises such as walking or swimming three times a week are beneficial in Parkinson's; ample evidence supports aerobic exercise in Parkinson's. "Live Well With Parkinson's" exercise classes, targeted specifically at people with Parkinson's, are **offered in Hamilton**.

(3) **Resistance exercise** - Many people with Parkinson's suffer from muscle weakness in the legs which worsens posture, balance, and bone strength. Multiple studies show that resistance exercise with machines or weights improves strength and balance, and reduces falls, in Parkinson's. Resistance training specifically for people with Parkinson's is available **weekly in Hamilton**.

(4) **Dance** - One of the most effective exercise protocols for people with Parkinson's, dancing to music directly improves strength, walking, and balance. Tango is supported by five randomized controlled studies. Weekly dance classes for people with Parkinson's are **currently commencing in Hamilton**!

(5) **Tai Chi** - A Chinese martial arts discipline that focuses on weight shifting, slow and controlled movements, and maintaining certain postures. No less than seven randomized controlled studies show that Tai Chi improves walking and balance in people with Parkinson's.

There is strong evidence for Tai Chi in Parkinson's.

Seven mind-body interventions have **moderate** evidence supporting them in Parkinson's:

(1) **Lee Silverman Voice Training (LSVT) LOUD** - This voice therapy improves vocal loudness and communication. LSVT LOUD is supported by two randomized controlled studies in Parkinson's. The public hospital system in New Zealand does not fund LSVT LOUD, but **private lessons are available**.

(2) **Yoga** - This mindfulness-based exercise has ample evidence in many medical conditions; the only randomized controlled study in Parkinson's showed benefits in motor symptoms and balance. Yoga sessions for people with Parkinson's are held **weekly in Hamilton**.

(3) **Singing** - Choral singing has been shown in several non-randomized studies to improve breathing, speaking, low mood, and social isolation. Group choral singing classes for people with Parkinson's are held **twice a month in Hamilton**.

(4) **Boxing** - Group boxing training improves balance and mobility to the same extent that traditional group exercise training does in Parkinson's, but boxing improves walking speed and endurance more. "Counterpunch" boxing classes aimed at people with Parkinson's are held **weekly in Hamilton**.

(5) **BIG therapy** - A form of physiotherapy that focuses on increasing the size of movements such as arm swing and stride length by thinking about exaggerated or "big" movements. There has been one good randomized controlled study showing that BIG therapy is superior to Nordic training or home exercises in Parkinson's.

(6) **Conventional physiotherapy** - A 2012 systematic review of 29 studies found that physiotherapy in general confers short-term benefits on walking speed and balance in people with Parkinson's; long-term data were lacking.

(7) **Nintendo Wii** - Several non-randomized studies have shown that playing Nintendo Wii three times a week, especially with the Balance Board, improves walking and balance in people with Parkinson's.

There is moderate evidence for the Nintendo Wii plus Balance Board in Parkinson's.

Four mind-body interventions have **weak** evidence supporting them in Parkinson's:

(1) **Music therapy** - Even music by itself may improve Parkinson's on a mental, physical, and emotional level by acting as an external cue and increasing dopamine release within the brain.

(2) **Mindfulness** - This form of meditation has been examined by several studies, including a recent randomized controlled study which unfortunately showed minimal benefit in people with Parkinson's.

(3) **Massage** - There has been only one randomized controlled study showing that massage improved subjective assessments of mood and disability; objective motor outcomes were not examined.

(4) **Acupuncture** - Ten studies have examined the role of acupuncture in Parkinson's. It appears to be safe, and many people describe anecdotal benefit, but the results across the different studies have been extremely inconsistent.

Comparing the strength of the evidence supporting various mind-body interventions is helpful, but remember - even if the current evidence for one mind-body intervention is superior to the evidence for another, this does not necessarily mean the former is better. At the end of the day, the most important take-home message about mind-body interventions in Parkinson's is to be aware of the numerous options available to you, pick at least two of them, and **pursue them with passion**. To find out more about the above programs that are available in Hamilton, the best person to contact is Parkinson's Community Educator Janine Mair; for people who live elsewhere in Waikato, contact your local Parkinson's Community Educator.

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**References**

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(3) Mahler et al. 2015. Evidence-based treatment of voice and speech disorders in Parkinson disease. Current Opinion in Otolaryngology & Head and Neck Surgery 23, 209-215.

(4) Tomlinson et al. 2012. Physiotherapy intervention in Parkinson's disease: systematic review and meta-analysis. BMJ 345, 1-27.

(5) Advocat et al. 2016. The effects of a mindfulness-based lifestyle program for adults with Parkinson's disease: a mixed methods, wait list controlled randomised control study. BMC Neurology 16(166), 1-11.