Active Canterbury News Keeping Physical Activity Providers Informed July/August 2019



# Physical activity keeps the mind alive!

Te kori tinana, he mahi e ora ai te hinengaro



<u>I have just finished reading "Healthy Brain, Happy Life" by Dr Wendy Suzuki</u> – a Professor of Neural Science and Psychology in the Centre for Neural Science at New York University. It's a fascinating blend of personal memoir, science narrative and practical takeaways. **The book unpacks the powerful connection between exercise, learning, memory, and cognitive abilities** and looks at the question: *How does exercise really affect the brain?* The answer? In really remarkable ways! So in this edition, we'll be taking a closer look at the connection between exercise and the brain. According to Dr Suzuki, not only does physical activity make your body feel more alive and your brain perform better, it can also make you smarter! Read on to find out how brain hacks, disruptive activities and positive affirmations can enhance your classes, groups and programmes.

## The Brain and Exercise

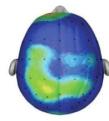
Exercise helps memory and thinking through both direct and indirect means.



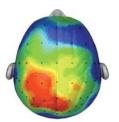
From the moment you begin exercising you release a protein called Brain-Derived Neurotrophic Factor (BDNF). BDNF is a protein that is essential for neuronal development and survival, synaptic plasticity, and cognitive function.

Simply put, it's extremely important to your brain health, and dysregulation of BDNF is actually associated with neurodegenerative disorders, such as Alzheimer's Disease. The benefits of exercise also come directly from its ability to reduce insulin resistance, reduce inflammation, and stimulate the release of growth factors.

Indirectly, exercise **improves mood and sleep**, and **reduces stress and anxiety**. Problems in these areas frequently cause or contribute to cognitive impairment. Aerobic activity boosts chemicals in the brain like depression-busting serotonin and reward-signalling dopamine. These effects can last for up to two hours after an exercise session. Other studies have shown that aerobic workouts can stave off age-related mental decline, and help with recovery from traumatic brain injuries.



BRAIN AFTER SITTING



BRAIN AFTER 20 MIN WALK

Did you know that after only 20 minutes of walking, significant chemical changes occur in the brain? This suggests that exercise does not need to be prolonged or intense to benefit the brain and that the effects begin more quickly than we might expect.

# **Brain Hacks**

Brain hacks can help engage the mind, improve memory, support the learning of new skills, and improve cognitive function.

They are based on the idea that 'small is better' and that over time these small changes add up.



The aim is to disrupt the usual way of doing things. For example, try brushing your teeth with the hand you don't usually use. Activities like this require the brain to do some work, because it's encountering something it hasn't experienced before. Here are some simple ideas you might like to try with your class or group:

- 1. Use a different style of music, adjust the speed, or change the dominant beat (i.e. from 4 counts to 3).
- 2. Build up a movement sequence that becomes more and more complicated. Use alternating arms, alternating feet, then different hand and head movements.
- 3. Change the location of the class or activity. Head outdoors or rearrange the room. Ask participants to stand in a different spot than usual.
- 4. Add in new movements that challenge right or left hand or side dominance.
- 5. Incorporate 'flash-mob' moments that disrupt the usual flow of the session unexpectedly.
- 6. Include a dance aspect like the cha-cha, the rumba, or the merengue.

Check out one of the following for more ideas:

- Exercising your brain (All Right?) or
- Dr Wendy Suzuki's website.

# **Celebrating 10 Years!**



The Active Canterbury Network (ACN) recently celebrated its 10th anniversary. Diana Saxton from Christchurch City Council is one of the group's original members. She believes the network has been successful because of its spirit of collaboration. "'He waka eke noa' really sums us up" she said, "meaning we're all in this together.

Read the full story on the 10th anniversary of the network!



The ACN membership includes Christchurch City Council, Community and Public Health (Canterbury DHB), Dance/Arts Representative, Grace Training NZ (Whanau Whanake), Exercise Industry Representative, Pegasus Health (Charitable) Ltd, Selwyn District Council, Sport Canterbury, Waimakariri District Council and the YMCA.

### **Education, Training and Development**

Neurological Conditions and the Exercise Professional

Dates: Saturday 3rd and Sunday 4th August 2019.
Location: Christchurch
Cost: \$499 + GST. A 20 percent discount is available for REPs registered trainers.

This two-day workshop is hosted by Master Neuro Trainer Lisa Gombinsky-Roach. She will cover the most common neuro-motor disorders and exercise guidelines for them. All participants may also take the Parkinson's for Exercise Professionals online certification course free. Contact Tim to reserve a place (tim@exerciseasmedicinenz.com).

#### Spread the Word Workshop

Date: Tuesday 21st August 2019.
Location: South Christchurch Library.
Cost: \$35 per person for not-for-profit or voluntary organisations or \$55 for Govt or private agencies.

A guide to promoting community recreation programmes and events. Space is limited to 15 people per session, so be in quick!

#### Functional Training for Group Fitness

**Date and Time:** Friday 30th August 2019, from 12.30 to 4pm. **Location:** YMCA Christchurch. **Cost:** AU\$97 per person.

This session demonstrates how to take elements of functional training into a group exercise session that is both achievable and safe for the general population. With very little equipment this is a group exercise session that will appeal to not only group exercise instructors but also personal trainers who prefer not to carry a whole gym to the park.

#### **Gymstick Muscle**

**Date and Time:** Sunday 1st September 2019, from 9am to 5pm. **Location:** YMCA Christchurch

This workshop teaches instructors how to develop a progression-based technique called Trios. Trios is a group exercise concept exclusive to Gymstick and it has been proven to be Simply Effective in delivering group fitness programs that includes muscle strength, endurance, balance, coordination, cardiovascular conditioning and mobility. Special sale price available.

# **greater christchurch** sport & recreation guide

#### Have you listed your details in the new Activities Directory yet?

Simply click on the button below to be directed to the online form.

Check out the FAQ section on the Sport Canterbury website for more information.

# Add my details to the Greater ChCh Sport and Rec Guide



#### Recognising Pelvic Floor Health and Continence

Pelvic floor issues, and especially incontinence is not something that often makes the topic of our everyday conversations. But it's vital that activity providers understand the issues and know how to prescribe safe, appropriate exercises for this group. For many, activities like jumping, running and HIIT can cause bladder leakage and result in further damage.

REPS has just released a useful overview on this topic for exercise professionals which includes links to free resources.



IntenSati is a combination of two words: intention and sati – the Pali word for mindfulness. It was created by Patricia Moreno with the intention to create a spiritual, empowering exercise practice that is both effective and uplifting.

The class combines physical movements from kickboxing and dance, yoga and martial arts, with spoken affirmations.

Research is limited. <u>A 2014 study showed that</u> <u>the IntenSati exercise</u> <u>program is a feasible and</u> <u>beneficial intervention for</u> <u>individuals with traumatic</u> <u>brain injury</u>.

<u>Check out this 5-minute</u> <u>mood-booster Intensati</u> <u>workout</u> with Patricia Moreno.



The Right Music Makes A Difference

New research from The University of British Columbia and Brunel University London has shown that *upbeat music can make a rigorous workout seem less tough*, even for people who are insufficiently active.

Matthew Stork is a postdoctoral fellow in the School of Health and Exercise Sciences. He recently published a study examining how the right music can help less-active people get more out of their workout – and enjoy it more.

Read the full article on Matthew Stork's research published by the Australian Fitness Network.



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We welcome your feedback and comments.