Why getting fit makes you smarter

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After years of running corporate fitness centres, working as a personal trainer, training some of the world's best athletes and working with corporate clients, what I have learned is that many really smart people are still failing to make the connection between physical activity and what it does for your upstairs department.

I'm convinced we've got the marketing for the whole exercise thing totally stuffed up. Instead of fitness and weight loss centres showing pictures of the buffed bloke with chiseled pecs and abdominals as hard as a granite bench top, or the hot woman with legs so sexy they'd melt butter, why don't we advertise how fitness makes you smarter, improves your memory, helps increase energy, and reduces the risk of brain deterioration and dementia?

Yes, yes, we all know that regular fitness training improves your body shape and helps you get into the skinny black dress or those budgie smugglers you bought before life 'caught up with me'. But that's not what I'm talking about.

Let's look at exercise in a totally different way. Let's look at exercise like the magic elixir that it is, capable of totally transforming the way your brain functions.

The mind-body connection

What many fail to grasp is that exercise is imperative to sharpen and develop your mind. Sure, keep doing the crosswords, playing Sudoku, learning new languages and stimulating the brain. But make sure you add a dose of regular exercise to take get your brain pumping as well.

Dr John Ratey, author of Spark: The Revolutionary Science of Exercise and the Brain, says: "Neuroscientists have discovered a riveting picture of the biological relationship between the body, brain and the mind. The science of exercise has been proven to cue building blocks in the brain; it affects mood, anxiety and attention, guards against stress and reverses some of the effects of ageing on the brain. Exercise has a profound impact on cognitive abilities and mental health. It is simply one of the best treatments we have for most psychiatric problems."

While neuroscientists and academics are now (finally) using science to show the clear links between exercise and wellbeing (hallelujah!), centuries ago Greek philosophers understood the benefits connecting physical activity to the way we feel. Hippocrates prescribed physical activity for patients with mental illness. And Homer (not the guy off The Simpsons, the philosopher) stated "a healthy body is in a healthy mind".

During the Golden Age of Greece, children and adults of all ages were encouraged to participate in vigorous physical activity to strengthen the body and contribute towards physical wellbeing.

Somewhere along the way, though, we became too busy, too distracted by technology and too lazy, and started viewing physical activity as an inconvenience rather than an opportunity to strengthen body and mind.

Use it or lose it

Your brain is no different to other muscles in your body - when you don't use it, you lose it.

Dr Ratey again: "When you work out regularly, your brain gets used to this frequent surge of blood and adapts by turning certain genes on or off. Many of these changes boost brain cell function and protect from diseases such as Alzheimer's, Parkinson's or even stroke, and ward off age-related decline."

A number of neurotransmitters are also triggered such as endorphins, serotonin, dopamine, glutamate, and GABA. Some of these are well known for their role in mood control. When you exercise, the rejuvenating role of BDNF (Brain-Derived Neurotrophic Factor) activates brain stem cells to convert into new neurons. It also triggers numerous other chemicals that promote neural health.

Exercise is one of the most effective prevention and treatment strategies for depression. In October 2000, the New York Times published a report from Duke University with researchers showing regular exercise was a better treatment than Sertraline (Zoloft) for treating depression. As with all mental health issues, though, please consult a medical professional before changing your treatment.

Gretchen Reynolds, author of The First 20 Minutes: Surprising Science Reveals How We Can Exercise Better, Train Smarter, Live Longer says: "The first 20 minutes of moving around provide most of the health benefits. You don't need to train like an elite athlete to reap the benefits of exercise."

Like a wonder drug

OK, I'll get off my soap box and summarise the psychological benefits of regular physical exercise:

- Profound impact on cognitive ability and mental health
- Increased creativity and lateral thinking ability
- Forms building blocks to help stimulate learning in the brain
- Releases endorphins and neurotransmitters in the brain and creates positive moods
- Improves self-esteem and self-efficacy
- Builds capacity to manage stress and improved resilience
- Is a proven treatment for psychiatric problems including stress, anxiety and depression
- Is proven to reduce the likelihood of dementia and Alzheimer's
- Reverses the effects of ageing in the brain.

If I could sell you a potion with all of these benefits you'd pay me thousands and thousands of dollars. But there is no potion - just get off your backside, put one foot in front of the other and move whenever you can.

Walk to work. Mow your own lawns. Play in the park with your kids. Dust off that old bike. Swim in the ocean. Buy a dog. Just get off your backside as much as you can and your brain will thank you for it over and over again.

