

# Forget dieting—retrain your brain to beat stress and lose weight

December 8 2016, by Amanda Weaver

---

A QUT neuroscientist internationally acclaimed for her research on alcohol and sugar addiction claims brainpower rather than willpower is the key to living healthily.

Professor Selena Bartlett from QUT's Institute of Health and Biomedical Innovation said diets alone were rarely successful and our brains dictated our behaviour in a way unchanged since prehistoric times.

"Our [brain](#) responds to stress in an ancient way but it is possible to override it," said Professor Bartlett who has just published a book – MiGGi Matters: How to train your brain to manage stress and trim your body.

"Despite all the information out there on the dangers of being overweight and advice from countless weight-loss gurus, the Australian Bureau of Statistics tells us that 63 per cent of Australian adults are overweight or obese.

"There is also overwhelming evidence that for many people who to lose weight through dieting, they quickly regain it. Diets can in fact make us fatter and more stressed.

"This is because we ignore our brain, which silently drives our behaviour as if we are still ancient humans living in prehistoric conditions.

"The same applies to addictive behaviours. When we are stressed our

brain seeks pleasure and that's the problem."

Professor Bartlett said the brain has developed in complexity as humans have evolved and has three distinct sections - survival, emotional and rational.

"The survival section of the brain controls our heart beat, breathing and keeps us alive. The emotional section, in particular the amygdala, protects us from perceived danger by instigating a 'fight or flight' response while the rational section drives our functions like impulse control, planning and decision making," Professor Bartlett said.

"In today's stressful world of work, finances, relationships, parenting and other responsibilities the body releases stress hormones like cortisol. Over time stress hormones significantly reduce the number of synapses in the brain. This in turn impacts our rational brain and can reduce our [impulse control](#).

"To counteract the damage caused by stress hormones, the ancient, emotional part of our brain drives us to find pleasure. When we experience pleasure, our body is flooded with hormones like dopamine, serotonin and endorphins. These bind to receptors in the brain and reduce the damaging effect of [stress hormones](#).

"So the more stress you experience, the more your brain seeks pleasure to counter it.

"When our ancient brain demands a pleasurable experience, it is common to reach for alcohol, sweet treats and comfort food. This is a problem for two reasons - they are high in calories leading to weight gain, and they are addictive."

Professor Bartlett's latest research shows sugar increases a

neurochemical that binds to nicotinic receptors in the brain in the same way as alcohol and nicotine. Regular consumption of sugar, alcohol and nicotine change the brain, leading to the need to consume more and more to feel the same level of pleasure.

"Just like alcohol and nicotine, a sudden decrease in sugar consumption will lead to withdrawal symptoms and cravings," she said.

"To overcome this we need to override the ancient brain. When the rational brain is in charge; sustainable weight loss is possible."

Professor Bartlett's book outlines the following five steps to help make this happen:

1. Be compassionate to your brain – it is an amazing, ancient organ that can be severely damaged by stress, especially in childhood while it is developing
2. Get to know the brain – an awareness of how the ancient amygdala drives your behaviour is critical to overriding unhealthy impulses
3. Identify when your amygdala is taking over or when you're having a "MiGGi moment" – in stressful situations acknowledge when you're suddenly taken by the urge to eat comforting food, smoke or drink alcohol
4. Replace food and alcohol with a MiGGi movement – deep breathing, stretching, walking, running; any movement that feels good
5. Reduce sugar and alcohol intake and increase cardiovascular and high intensity exercise – these will help to heal your brain of its stress-induced damage and build a strong, healthy body

**More information:** MiGGi Matters: How to train your brain to manage stress and trim your body is available for sale at AU\$33 for a

print version or AU\$24.95 in ebook format: [www.miggimatters.com/](http://www.miggimatters.com/)

Provided by Queensland University of Technology

Citation: Forget dieting—retrain your brain to beat stress and lose weight (2016, December 8)  
retrieved 10 April 2024 from

<https://medicalxpress.com/news/2016-12-dietingretrain-brain-stress-weight.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--