

WEIGHT *expectations*

Could stress be hampering your health goals?

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Ladies, we're about to share with you a piece of information that, if Oprah were here, would be referred to as an "Aha!" moment: stop worrying about your weight. It could be the main factor holding you back.

Most of us are aware of the role stress plays in bad habits that can hamper healthy intentions – pushing through work deadlines with the help of sugary energy drinks, medicating emotions with junk food, draining our motivation to hit the gym. In an ironic twist, the Australian Psychological Society lists trying to maintain a healthy lifestyle as a leading cause of stress, with four in every 10 people reporting it as a source of anxiety in its 2013 Stress and Wellbeing Survey.

But a ground-breaking Monash University study suggests that, aside from the overeating, sugar fixes, and poor exercise habits, stress – in its purest form – is fundamental to our ability to gain and lose weight.

THE STRESS TEST

Researchers studying the effects of the stress hormone cortisol in sheep have discovered that higher levels of the hormone coincide with lower energy expenditure through thermogenesis, a process by which organs and tissues dissipate energy through heat.

"Our study shows that high cortisol responders have reduced heat production in skeletal muscle. This reduction in heat production means that these individuals are less capable of using or burning kilojoules,"

explains Dr Belinda Henry from Monash University's department of physiology.

Having identified cortisol as a marker for low resting energy expenditure, Dr Henry and her colleague, Professor Ian Clark, have turned their attention to human trials with a view to developing a test that predicts a person's likelihood of gaining and holding onto weight easily.

Test recruits are injected with adrenocorticotropin (ACTH), the naturally-occurring hormone that stimulates cortisol, and provide blood samples for measuring the level of response.

"Everybody responds to stress differently. This means that some people may have a very low cortisol response to stress and others have a very high response. It is those that have a high response that are more susceptible to weight gain," Dr Henry says.

The million-dollar question, of course, is can we control our cortisol levels – can learning to stress less actually reduce a person's susceptibility to weight gain or level of difficulty in shifting excess kilos? How much control we exercise over our inherent stress level is a primary focus for Dr Henry and her team, who are studying the effects of stress management techniques with the university's Be Active Sleep Eat centre. They also aim to uncover whether cortisol response is the result of the genetic lottery or our environment.

"We are currently working on whether this effect is due to specific genes that are passed on through generations or whether it is due to something that happens during foetal life or after birth," Dr Henry says.

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A FIT PREDICTION

While the team at Monash focuses on early intervention through food, exercise and stress reduction, across town at Melbourne's Deakin University scientists are investigating stress from another angle.

They are measuring the effects of fitness on responses to psychological stress in 30- to 50-year-old women, and have predicted that those who are fitter will have a lower reaction to stress, both physically and hormonally.

Volunteers undergo physical fitness testing and a psychological stress protocol called the Trier Social Stress Test, which involves impromptu public speaking and mental arithmetic. Stress levels are tracked before, during and after the activities.

"We measure an array of stress hormones (which include cortisol, adrenaline, noradrenaline and salivary alpha amylase) and numerous cardiovascular parameters (such as heart rate and blood pressure) that can be subjected to change during stress," says researcher Sisitha Jayasinghe.

"We have hypothesised that the women with higher levels of physical fitness will have lower stress reactivity – both endocrine and cardiovascular – compared with the women with lower levels of physical fitness."

While an obesity test may not be as routine as a visit to the doctor just yet, both studies highlight that stress management and physical health go hand in hand. Clinical results may even prove that the stress-related benefits of exercise work two-fold: in the first instance, reducing levels of stress experienced, and beyond that keeping cortisol levels in a range that assists our bodies in health. **26**

STRESS LESS

One thing we can control is our external response to stress, and making sure we prevent small issues from escalating into major sources of anxiety. "Most people are more aware of what others require of them than what they would like to create as their reality – that creates stress," says Susanna Mittermaier, a clinical psychologist specialising in mental health and author of *Pragmatic Psychology: Practical Tools for Being Crazy Happy*. (\$26.65).

"We have learned that change has to be difficult and takes time. When you know it's time to change ... when you finally ask for what else is possible, change can be created with ease."

Next time you find yourself in a stressful mindset, consider applying one of Mittermaier's strategies for challenging anxiety and destructive thinking patterns:

ACKNOWLEDGE

"Anxiety tells you that there is information you are aware of that you have not acknowledged and rather misapplied as anxiety. When you acknowledge that this is an awareness you are having, rather than a worry in your world, your anxiety will decrease. Ask: 'What am I aware of that I have not acknowledged?'"

QUESTION STRESSFUL THOUGHTS

"Ask yourself, 'What am I making real that is not? Anxiety is created when you let your thoughts take charge. Your thoughts tell you that there is something you need to worry about and your mind will look for evidence to prove your point of view. Questions open the doors to new information and change, taking you out of the trap you are creating for yourself.'"

CONSIDER YOUR POINT OF VIEW

"What if your anxiety was just an interesting point of view? Your point of view creates your reality. Reality does not create your point of view. Every time anxiety comes up, say to yourself, 'Interesting point of view, I have this point of view.' Repeat at least ten times and watch how everything you have made real suddenly does not seem real anymore."

