

CORPORATED MANAGEMENT / HUMAN RESOURCES

PAPER: THE STAR (LIFE & TIMES LIVING)

DATE: 07 JULY 2013

PAGE: 07

By FIONA HO
starhealth@thestar.com.my

THE demands of modern living can have a disruptive effect on the human body.

The bills won't stop coming, there will never be more hours in a day, your annoying mother-in-law isn't going away any time soon, and your responsibilities of your job and home only seem to increase day by day.

As a result, many of us are constantly stressed and tired from simply trying to live.

Stress is the body's reaction to any event that requires an adjustment or response. In dealing with a stressful event, a part of the brain called the hypothalamus triggers an array of neural and biochemical reactions to help the body cope with these changes.

The succession of neuronal and hormonal signals prompts your adrenal glands, located on top of your kidneys, to release a cocktail of hormones, which include adrenaline and cortisol.

These biochemical reactions prepare the body to react with physical, mental and emotional responses.

Such responses can be beneficial in a critical, life-or-death situation, say if you ever find yourself confronted with an angry lion.

However, repeated stressful situations put a strain on the body that may contribute to physical and psychological problems over time. The reason for this is because the biochemical reactions that follow a stressful event disturb one's physical and mental equilibrium.

For instance, a spike in cortisol – the primary stress hormone – alters immune system responses and suppresses the digestive system, the reproductive system and other growth processes.

While cortisol is essential in organising systems throughout the body, which includes the heart, lungs, circulation, metabolism and skin, research shows that too much can actually make your brain more vulnerable to damage due to strokes and ageing.

Stress may also contribute to unhealthy eating habits, with many people admitting that they are overeating or eating unhealthy foods due to stress. This leads to side effects such as mood swings and weight gain.

Utah-based biochemist and exercise physiologist Dr Shawn Talbott says that the secret to overcoming stress is by restoring the body's biochemical balance. In doing so, we reclaim our "vigour", a source of natural energy innate in the human body.

"Vigour is a sustained feeling of physical energy, mental clarity and emotional well-being – a true state of wellness and vitality," he writes in his book, *The Secret of Vigour*.

"We measure vigour with a mental and physical energy parameter, and it is very much linked to how people feel," he explains in an interview with *Fit4Life*.

Combating stress

Indeed, stress symptoms can affect your body, your thoughts and feelings, as well as your behaviour. If left unchecked, they can contribute to health problems such as high blood pressure, heart diseases, obesity and diabetes.

Chronic stress plays a major role in disrupting vigour. Dr Talbott explains that we can dramatically reduce stress, cut fatigue and improve vigour by achieving "oxidative balance, glycation balance,

Palm-ing stress away

Phytonutrients found in palm may play a role in helping to restore the body's natural biochemical equilibrium that stress disrupts.



The anti-inflammatory and antioxidant properties found in palm phytonutrients may help combat the adverse effects of stress.

Repeated stressful situations put a strain on the body that may contribute to physical and psychological problems over time.



inflammation balance, and metabolic balance," or what he refers to as the "four pillars of health".

"All four pillars are closely linked and they affect one another," he says.

"For example, when you are stressed, heightened cortisol levels can increase oxidation, which may in turn, lead to inflammation."

In *The Secret of Vigour*, Dr Talbott writes: "Oxidation balance is achieved by balancing the free radicals and antioxidants in the body to limit cell and DNA damage in the body. We can control free radical exposure and cellular oxidation (damage) through a balanced dietary intake of antioxidant nutrients."

Glycation is a reaction that takes

place when simple sugar molecules, such as glucose or fructose, become attached to proteins or lipid fats without the moderation of an enzyme. Its ill-effects, often a result of connective-tissue damage and chronic inflammation from diabetes, can lead to conditions such as cataracts, Alzheimer's, and diseases of the pancreas and liver.

According to Dr Talbott, glycation balance can be achieved by making nutritional adjustments to control blood sugar level, which could reduce glycation throughout the body.

Inflammation balance can be restored by balancing insulin activity and blood glucose levels.

Inflammation is a normal metabolic process with many life-



Utah-based biochemist and exercise physiologist Dr Shawn Talbott says the secret to overcoming stress is by restoring the body's biochemical balance. In doing so, we reclaim our "vigour", a source of natural energy innate in the human body.

sustaining benefits. However, if it becomes overactive or misdirected, our bodies can fall into a hyper-inflammatory state, which leads to pain, stiffness, gastrointestinal problems and brain fog. Controlling inflammation also helps to balance oxidation, glycation, and cellular stress," he says.

Finally, metabolic balance is achieved by correcting the imbalance between cortisol and testosterone levels.

"Cortisol overexposure leads to a reduction in testosterone levels, and this metabolic imbalance invariably leads to a cascading "domino effect" of increased oxidation, glycation and inflammation.

"In many ways, the balance between cortisol and testosterone is the 'master controller' among the four pillars of health," the doctor shares.

He adds that by restoring the balance in these pillars, one achieves biochemical balance, and reclaim his vigour.

"The lack of vigour is associated with wrinkling skin, thinning hair, spreading waistlines and diminished sex drive. Restoring vigour

will not only make you look and feel better, you will live better as well."

The vigorous palm

According to Dr Talbott, phytonutrients found in palm may play a role in restoring the biochemical balance in the body.

Phytochemicals are chemical compounds that occur naturally in plants that help to prevent disease and keep the body working properly.

The palm fruit contains a high content of phytonutrients known as carotenoids (a precursor to Vitamin A) and tocotrienols (a derivative of Vitamin E).

Carotenoids are powerful antioxidants reputed for their anti-ageing properties. They protect cells from oxidative stress, free radical damage (including UV exposure) and pro-inflammatory chemicals.

Their antioxidant properties don't only help stave off wrinkles, they also help protect the lining of the arteries and the fats in the blood from oxidative damage caused by free radicals, ensuring a functional overall biological system.

Meanwhile, recent studies suggest that vitamin E tocotrienols have powerful antioxidant and anti-inflammatory properties that can help increase the body's immune system's ability to fight inflammation.

Vitamin E occurs naturally in eight different forms: four tocopherols and four tocotrienols – each named alpha, beta, delta and gamma. With continuing research, the vitamin E tocotrienols are fast emerging as the superior siblings in the vitamin E family, essential for the full range of antioxidant properties in vitamin E.

Combined, the anti-inflammatory and antioxidant properties found in these phytonutrients make the palm fruit the ideal package to help protect your body against the ravages of stress. It also helps your body recover from stress," Dr Talbott concludes.