ARE YOU BURNING OUT YOUR BRAIN?

Like me, you may know someone close to you that has or is suffering from one of the following conditions – burnout, adrenal fatigue, stress-induced depression and anxiety, mental fatigue and psychological (mental) distress – or you may have suffered from one of these yourself. These are all such common words you hear these days and more and more people are being affected as our modern info-tech world keeps demanding more and more of our brains.

WORDS BY DREW KNOWLES

This month is a stress check for all of you busy people pushing yourself to achieve your aims in life. I am going to look at whether we are burning out our brains by looking at the facts and statistics and such a prevalence of all these mental and physical health issues for so many people in the business world. I have chosen this topic to write about because it naturally follows the last one about staying focused, but mostly because I have had a number of colleagues and friends dealing with this, and it is something I see so commonly with many of my clients, who are mostly very successful, highly intelligent and capable business people. I want to shine some light on why so many people in the business world in particular are suffering from these conditions and what can be done to not have the statistics and facts I am going to state keep prevailing.

One of the key points from last month's article was that many of us who are living business lives with high ambitions to succeed in all areas of our life are struggling at times to focus and manage our attention due to all the distractions we have throughout our daily lives. Constantly having to switch our attention, the daily disruptions and interruptions we have to deal with, trying to focus on multiple things at the same time and just the sheer volume of information and stimulation our brains are having to deal with in our modern 21st Century life is taking it's toll on our mind and brain.

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You can do a stress check for yourself once I have highlighted what the facts and statistics are about stress and our mental health so you can see whether what you are doing on a day to day basis may be contributing to what I am calling "brain burnout." You can check whether all of this busyness and being continually wired in and online 24/7 is burning out your brain. I am going to review what happens when we get stressed and look briefly at the common syndromes/conditions I mentioned earlier. You can look for yourself if there are any changes or modifications you may need to make to your lifestyle to take better care of your mind and brain in the long term.

You may not be "feeling" stressed, which is obviously where most people look to see if they are stressed, but the feeling of stress is not what stress is. You may just hear yourself saying what I think is one of the most common catch phrases of the 21st century when asked how are you? And you reply "BUSY", or some version of it. Stress is a physiological response the mind-body has to any mental/emotional, physical or environmental stressor that we encounter where some threat is produced in the brain or the body that we either consciously or unconsciously deal with to attempt to get rid of the negative stressor. We are programmed to do this as human beings, and when stressors are not removed, reduced or mitigated sufficiently for the body to restore homeostasis (balance), which it is always at work on trying to maintain, then our body and mind will have to start making adaptations to deal with the stressor stimulating a stress response – these adaptations over time present themselves as health issues, burnout, adrenal fatigue, depression, anxiety and all the symptoms that go with these common health issues.

The bottom line is, and I always feel the need to make this point clear, is that you must understand stressors and the nature of stress to prevent you from burning out your brain, and having your performance, productivity, and overall health of your state of mind at its best as you attempt to deal with the overload of things to manage and do and handle in your day to day busy and frantic life. You can do all you like to try and deal with the symptoms of chronic stress levels through your diet, exercise, affirmations, breathing techniques, medication and whatever other things we use to try and deal with stress, but you must fundamentally stop and look at the source of your stress which will be a culmination of all of the stressors you have in your life and go to work on reducing, removing or mitigating those stressors – then you will find your techniques for reducing or lowering stress will be much more effective in the long term.

Let's start with some of the most relevant statistics and facts I could find to give you a picture of what is actually happening out there in modern western society (many are from other western countries outside of New Zealand as we don't have as much data as some of the larger countries – however the health stats are all very similar for Australia, USA and the UK across the board):

Almost one quarter of New Zealand adults have been diagnosed with a common mental disorder (depression and anxiety) or psychological (mental) distress; one in six have medicated high blood pressure; one in ten have medicated high cholesterol; two thirds are overweight or obese; half are physically in-active; five percent have diagnosed diabetes; and one in six have chronic pain. – Ministry Of Health Report 2011/2012.

In the past six years the number of New Zealanders taking antidepressants has doubled, and a psychiatry professor says the drugs are being over-prescribed. The Government's drug-buying agency, Pharmac, released figures which showed one in ten New Zealanders were now prescribed antidepressants. – *NZ Herald* Oct, 2012.

Eight million prescriptions for pills to treat these complaints (depression, anxiety, insomnia and chronic pain) were dispensed in 2011-2012, pushing the nation further into a drug-induced state, according to Pharmac figures. – *stuff.co.nz* January 2013.

Prescriptions for depression, anxiety, insomnia and pain jumped by 60 percent over the past five years. This amounted to an extra 800,000 patients swallowing 3 million more bottles of prescription pills over the five-year period. Insomnia is also on the increase among adults. About 237,000 people were prescribed sleeping pills in 2011-12, up 77 percent from five years ago. – *stuff.co.nz* January 2013.

In 2012, 421,000 patients were prescribed medication for depression, 237,000 for sleep and sedation and 126,000 for anxiety, which was almost double for each condition from the 2006 figures. – *stuff.co.nz* January 2013.

The Stress in America survey results show that adults continue to report high levels of stress and many report that their stress has increased over the past year. – American Psychological Association.

75 percent of adults reported experiencing moderate to high levels of stress in the past month and nearly half reported that their stress has increased in the past year. – American Psychological Association.

80 percent of workers feel stress on the job and nearly half say they need help in learning how to manage stress. And 42 percent say their co-workers need such help. – American Institute of Stress.

Stress levels in the workplace are rising with six in ten workers in major global economies experiencing workplace stress. With China (86 percent) having the highest rise in workplace stress. – The Regus Group.

Alarmingly 91 percent of adult Australians feel stress in at least one important area of their lives. Almost 50 percent feel very stressed about one part of their life. – Lifeline Australia.

Australian employees are absent for an average of 3.2 working days each year through stress. This workplace stress costs the Australian economy approximately $14.2 billion. – Medibank.

Depression is among the leading causes of disability worldwide. – World Health Organisation.

According to Institute of Mental Health, about 25 percent of American adults (those ages 18 and older) and about 13 percent of American children (those ages 8 to 15) are diagnosed with a mental disorder during a given year.

On August 2001, a team led by Professor David Meyer published the findings of his study on multitasking (in the *Journal of Experimental Psychology*). According to Meyer et al., multitasking creates health problems and is not efficient.

In another study, Hembrooke and Gay found that multitasking weakens the abilities of the memory, in comparison to those who did not apply multitasking – Journal of Computing in Higher Education, 2003.

Problems at work are more strongly associated with health complaints than are any other life stressor – more so than even financial problems or family problems – St. Paul Fire and Marine Insurance Co.

I now want to review what actually happens when a stressor triggers a stress response in our mind-body, distinct from what we think when we "feel" stressed.

The chemical reaction inside the body and brain is very important to understand, as it was designed for life circumstances tens of thousands of years ago and helped our ancestors to survive real threats to their survival. While it was an incredibly intelligent and innate response to have us survive a short-term threat to our lives thousands of years ago when the threats really were life and death, in our modern day, most of our reactions to stressors in our lives are inappropriate as there is no actual threat to our life and the level of stress we create in perceiving the threat is not always necessary for our body and mind. The human stress response was designed to survive short-term threats to our lives and not intended to be constantly produced over long periods of time.

Here is a basic run down of what happens in our body and mind when a stressor triggers a stress response. As you read this, think of two perspectives – First, how intelligent this is to survive a real threat to your life like a saber-toothed tiger; Second, how detrimental this could be when it goes on constantly in your body and mind in response to everyday stressors.

The brain detects threat. As a result, heart rate increases, blood vessels constrict, and blood pressure rises. Stress hormones – cortisol and adrenaline/noradrenaline – are released. Additionally, there is an increase in blood glucose levels for energy to the muscles and body (SUGAR!), an increase in blood lipid levels for converting into glucose (FATS!), an increase in bad cholesterol levels and reduction in good cholesterol levels (cholesterol is used in healing wounds and for making stress hormones), an increase in clotting factors (for preparation for potential wound), and an increase in protein breakdown of muscle and connective tissue for conversion into glucose for energy.

Chronic stress can have a real negative impact on the body – it can lead to insulin resistance due to constant high blood glucose leading to Type II Diabetes, and it can result in decreased immune function because the immune system is very energy expensive and won't save you from a saber-toothed tiger attack. Emotional memories and anxiety dominate (so we remember to look for the saber-tooth tiger next time we are at the watering hole), and logical behaviour and short-term memory are inhibited. This increase in emotional learning and instinctual behaviour and inhibition of factual learning (don't need to learn algebra to survive a saber-toothed tiger attack) leads to a decreased ability to concentrate and focus attention – learning and attention deficit disorders and sleep issues are common under conditions of chronic stress. The decrease in serotonin levels and increase in noradrenaline levels also negatively impacts the body. Low serotonin leads to an increase in feelings of stress, anxiety and depression. This leads to being irritable, tired, listless, having tension headaches, decreased sex drive, lowered growth hormones (rapid aging), appetite changes, burnout and chronic fatigue. Increase in sensitivity to sensory systems – being more sensitive to your environment – also results in higher sensitivity to pain. Calcium loss from insulin resistance leads to less stimulation of bone growth and eventually osteoporosis. Chronically elevated stress hormones also lead to cravings for the energy required for the stress response – SUGARS AND FATS!

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As you can see, all of these physiological/biological chemical reactions are innately and intelligently designed to have us survive any threat to our lives for a short period of time, but not designed to occur for long periods.

When this stress is in high levels over a long period these are the most common syndromes, conditions or mental health issues that people are dealing with at low to severe levels:

BURNOUT

Burnout is a psychological term for the experience of long-term exhaustion and diminished interest. There are negative outcomes related to burnout, including job function (performance, output, etc.), health related outcomes (increases in stress hormones, coronary heart disease, circulatory issues) and mental health problems (depression, etc.).

DEPRESSION

Depression is a state of low mood and aversion to activity that can have a negative effect on a person's thoughts, behaviour, feelings, world view, and physical well-being. Depressed people may feel sad, anxious, empty, hopeless, worried, helpless, worthless, guilty, irritable, hurt, or restless. They may lose interest in activities that once were pleasurable, experience loss of appetite or overeating, have problems

concentrating, remembering details, or making decisions, and may contemplate or attempt suicide. Insomnia, excessive sleeping, fatigue, loss of energy, or aches, pains, or digestive problems that are resistant to treatment may also be present.

ANXIETY

Anxiety is the displeasing feeling of fear and concern and becomes a disorder when it is frequent and becomes overwhelming. The physical effects of anxiety may include heart palpitations, tachycardia, muscle weakness and tension, fatigue, nausea, chest pain, shortness of breath, headache, stomach aches, or tension headaches. As the body prepares to deal with a threat, blood pressure, heart rate, perspiration, blood flow to the major muscle groups are increased, while immune and digestive functions are inhibited (the fight or flight response). External signs of anxiety may include pallor, sweating, trembling, and pupillary dilation. For someone who suffers anxiety this can lead to a panic attack.

ADRENAL FATIGUE

Adrenal fatigue or hypoadrenia are terms used in alternative medicine to describe the belief that the adrenal glands are exhausted and unable to produce adequate quantities of hormones, primarily the glucocorticoid cortisol. Adrenal fatigue should not be confused with recognised forms of adrenal dysfunction such as adrenal insufficiency or Addison's Disease. The term "adrenal fatigue" may be applied to a collection of mostly nonspecific symptoms such as "tiredness, trouble falling asleep at night or waking up in the morning, salt and sugar craving, and needing stimulants like caffeine to get through the day".

SOME KEY SIGNS AND SYMPTOMS OF ADRENAL FATIGUE ARE:

- Unable to sleep, sigh a lot, always feel tired and not replenished after a sleep.
- Find it difficult to wake early.
- Need a stimulant like coffee to get you going properly.
- Have afternoon low between 2-4pm, then feel better after 6pm.
- Tired between 9-10pm, resist going to bed receiving a second wind at 11pm.
- Unable to achieve as much as you used to.
- Need to lie down after emotional or physical pressure.
- Can't cope with stress and pressure like you used to.
- Experience muscular weakness.
- Decreased sex drive.
- Crave food high in fat with protein and caffeine.
- Crave salt and put a lot of salt on food.

MENTAL FATIGUE

Mental fatigue is a transient decrease in maximal cognitive performance resulting from prolonged periods of cognitive activity. It can manifest as somnolence, lethargy, or directed attention fatigue. Mental fatigue is a temporary inability to maintain optimal cognitive performance. The onset of mental fatigue during any cognitive activity is gradual, and depends upon an individual's cognitive ability, and also upon other factors, such as sleep deprivation and overall health. Mental fatigue has also been shown to decrease physical performance. Decreased attention is known as ego depletion and occurs when the limited "self-regulatory capacity" is depleted. It may also be described as a more or less decreased level of consciousness.

Scientists also call this phenomenon "cognitive overload", and say it encompasses the modern-day angst of stress, multitasking, distraction and data flurries. In fact, multitasking — a computing term that involves doing, or trying to do, more than one thing at once — has cemented itself into our daily lives and is intensely studied. Research has shown it to be consistently counterproductive, often foolish, and unhealthy in the long run.

"Most members of the general population know little about how the constant interruptions and distractions caused by communication devices and the bombardment of information and publicity sent out by the media impacts our mental wellbeing." – David Rock, 2012.

Looking at all the statistics, facts and different syndromes, conditions and mental health issues so many people are affected by, it is very obvious that the human stress response we just reviewed and what happens when this is being stimulated at chronic levels is the common contributor to all of these.

In summary, our modern life is producing higher levels of stress than ever before that I believe is contributing to "brain burnout" that leads to many of the common conditions I have mentioned. All the research shows that this stress affects the mind and brain (and body) when in chronic levels and not kept in check.

I recommend if you are serious about thriving in this modern world (not merely surviving) and want to perform at your best; be most productive; and be able to manage a healthy state of mind in all areas of your life – then start understanding the stressors you have in your life that are producing unnecessary high levels of stress, and learn about what it takes to have a healthy mind.

There are lots of great resources and apps and things out there to help you manage your stress levels if you do a little searching online, but as I have said in previous articles, the best resource I have found to learn to have a healthy mind, and improve your ability to deal with the stress caused by modern day life is The Healthy Mind Platter by David Rock et.al.

HERE IS A SUMMARY OF THE SEVEN NEURO-COGNITIVE ACTIVITIES TO INCLUDE IN YOUR DAILY AND WEEKLY LIFE THAT NURTURE THE MIND FROM - THE HEALTHY MIND PLATTER:

- Sleep time – Refreshing mind and body, and consolidating memory.
- Play time – The joy of experimenting with life.
- Downtime – Disconnecting for integration and insight.
- Time-in – Reflection, attunement, mindfulness.
- Connecting time – The healing power of relationships.
- Physical time – Improving the brain's plasticity through exercise.
- Focus time – Attention management for performance.

Whether you think you are completely on top of your stress and how you deal with managing your mind and brain, or you are at the other end of the spectrum and dealing with one of the conditions mentioned, we are now a brain-powered economy and the need to understand how to maximise the use of our brain is ever-more important. If you learn about stress and how it affects the mind and brain, you will be well on your way to thriving in life as our world continues to speed up and demand more of us mentally.