



ARE YOU OVERLOADED WITH STRESS?

I work with some highly stressed clients with huge demands, and an allostatic load (scientific term for the body's wear and tear) that has them progressively less able to function at their best, and they end up just surviving and turning it on each day, all the while feeling like a fraud, only to come up for brief amounts of air (vacations and weekends) so they can keep it all up. As I have said in many previous articles, this can lead to brain burnout and all sorts of other behavioural, psychological and physical issues arising that, left unchecked, can be detrimental to their personal and professional lives.



Most of these clients have been top executives, CEOs of large companies and successful business owners/entrepreneurs – some of the smartest and most accomplished people I have ever met. They did not get to where they are now and survive for all this time without some understanding and practice of managing their basic health – keeping fit, eating well – and doing what they think they know to do to keep performing at their best. However, what has been consistent through all the work I have done with these corporate athletes is that there is a fundamental lack of understanding and management of their load which is, in simple terms, their stress and the stressors that cause it. Almost all of them got to some point when all they knew was that what they were doing to keep performing at their best began to prove not enough, at which point they all started suffering the consequences of an elevated allostatic load. Bear in mind that this did not mean that they began failing in their business endeavours; it was more like other areas of life began to suffer and that often began to bleed into their professional life. To their credit, they were also smart enough to know they needed help, or they got to a point where nothing else worked and they were forced to get help. Either way, they got help to learn what they did not know and this is always the first step, and I commend them for that.

The most basic thing each of my clients learnt and put into practice in their lives was how to mitigate, remove and reduce their stressors in their day-to-day life. They learnt to combat the constant onslaught of the modern day info-tech, fast-paced, over-stimulating marketplace so they could not only perform at their best professionally, but get what they needed to satisfy the other areas of life that were also suffering as a consequence of trying to survive their business life and keep succeeding.

The first step is getting a clear understanding and a practical way to apply their understanding of what allostatic load is, the stressors that cause it and the stress they produce. And while you will not be able to get the benefits of the kind of personal work I do with my clients, you can at least get the beginning of a pathway to manage and deal with your own allostatic load. If you are working in the current marketplace, then you will be dealing with the consequences of not understanding what your allostatic load is, or how to manage the effects of when it is chronically elevated over time. This unfortunately applies to all of us to some degree, as documented in many journal articles and scientific studies.

You cannot escape it because you are not above it, and if you think this does not apply to you in some way where you could learn something to help you now and into the future, then I will challenge your thinking and say quite straightforwardly that it will likely catch up with you. Unfortunately, this is usually the only time human beings will actually respond to and deal with something: when it really becomes a problem and threatens their ability to work, or function properly – and mostly we will ignore it until it is too late.

The consequence of elevated levels of stress hormones and the ever-increasing amount of stressors we have to try and cope with in our body and mind is a serious problem of the 21st century. My personal predictions have been for many years that those who understand how to powerfully navigate through and deal with these stressors (understanding your allostatic load throughout time) will be the ones that thrive. Through this understanding and approach to dealing with one's allostatic load, one avoids suffering the negative health consequences that ensue when your allostatic load has been elevated beyond normal for a long period of time.

I have seen my clients in a matter of 4-6 weeks drastically reduce their allostatic load, and not by removing all the stressors or changing their circumstances/situations. They learnt how to mitigate, reduce and remove the stressors, which lowered their allostatic load and altered their perception of what they had to manage, further enhancing their ability to deal with and manage them, due to the increased use of their prefrontal cortex, which is the executive function part of the brain.

This article is about looking at how stressed you really are and understanding your allostatic load so you can perform better in life. This is not about getting rid of stress; this is about being like Neo in *The Matrix* when he finally gets the Matrix and can slow down or stop the bullets (stressors) as they are coming at him. This will be more like a starting point for many of you about understanding and being able to recognise and deal with how stressed you are really, what allostatic load and allostasis are and where your allostatic load is at currently and historically. In other words, what your body-mind is actually coping with each day.

I will start with some definitions that are important for you to understand so you can begin to apply this to your daily life. I will also aim to draw from some research articles in this area to back up what I am saying with qualified and professional evidence and proof from the experts who spend their lives studying this discourse to help us better understand it. I am not going to get too deep into the science of it all or practical things you can do, as I would rather you left with a basic understanding and a way you can just begin to apply it to your everyday life. If you want to read more about stress, stressors, allostatic load, your mind and brain and practical ways to help you manage them better, refer to my previous M2 articles on my website (drewknowles.com) to help you gain new levels of performance both professionally and personally.

ALLOSTASIS AND ALLOSTATIC LOAD

The godfather of the work done on researching allostatic load, Bruce McEwen says, “‘Stress’ is an ambiguous term and has connotations that make it less than useful in understanding how the body can adapt or fail to adapt efficiently to experiences in daily life, including both daily hassles as well as major life events and abuse or trauma.”

These are the simplest definitions of allostasis and allostatic load:

Allostasis: The ongoing adaptive efforts of the body to maintain stability (homeostasis) in response to stressors.

Allostatic Load: The physiological wear and tear on the body that results from ongoing adaptive efforts to maintain stability (homeostasis) in response to stressors.

“Because chronically increased or dysregulated allostasis can lead to disease, we introduced the term ‘allostatic load’ or ‘overload’ to refer to the wear and tear that results from either too much stress or from inefficient management of allostasis, e.g. not turning off the response when it is no longer needed,” according to McEwen and Stellar. To give a little background, I will summarise some parts of a very thorough study done by Robert Ludke et al that capture allostatic load and its effects. Ludke is part of a company called Allostatis, who have one of the best (and perhaps only) method of actually scientifically testing your allostatic load.

“Increased stress has been associated with many health conditions that are widely discussed in the medical literature... In children and young adults, measurable allostatic load could be an early warning sign of accumulating health risks. Making early changes in lifestyle

choices and health behaviours could dramatically alter a patient's lifetime risk. Identifying markers of subclinical changes is especially important in older adults. Many older men and women experience gradual declines in physical and cognitive abilities even in the absence of a clinically diagnosable disease. Measures of allostatic load can help identify those older adults who are at increased risk for such declines, and can help the clinician select appropriate interventions with which to lower the patient's risk profile."

Acute stress induces changes that are generally thought to be essential and adaptive, while chronic stress is thought to exact a higher physiological price. The latter thereby creates what Bruce McEwen coined as an allostatic load, defined as the long-term effect of the physiological response to stress. Robert Sapolsky, a former student of McEwen and an established researcher on stress, explains the difference between acute stress and chronic stress in his book *Why Zebras Don't Get Ulcers*: "Unlike us, the zebra has an episode of stress only when the lion is in pursuit. Otherwise, he is physiologically calm." Chronic stress and its cumulative effects that most people experience comprise allostatic load. "Allostatic load does not always denote a failure of the body's efforts to cope with change or emergency. We can create it for ourselves by living in a way that makes for internal imbalance."

Some examples of self-generated stress are not getting enough sleep, eating an unhealthy diet, and not getting enough exercise.

"The effects of allostatic load established to date are numerous, and extend to every age group. In a study involving 1,189 men and women, aged 70-79 years at outset, participants were assessed with respect to allostatic load, cognitive functioning, and physical functioning. Participants with the highest allostatic load performed most poorly with respect to cognitive and physical functioning and on a seven-year follow up, higher baseline allostatic load scores predicted greater loss in cognitive and physical functioning. Specifically, persistent elevated levels of cortisol (stress hormone) are toxic to hippocampal neurons, and lead to neuronal atrophy (shrinking of nerve cells in the brain) or death and loss of memory."

I am going to focus just on allostatic load in this article and simply break it down into current and historical allostatic load, and the contributing stressors causing the wear and tear into "psycho-neurological" and "physio-biological" stressors. As I do not have a scientific way you can actually test it. The best you can do is just recognise and understand what contributes to your allostatic load, and mitigate, remove or reduce whatever stressors you can as you go about your day-to-day life.

HISTORICAL AND CURRENT ALLOSTATIC LOAD

You need to look at both the current and historical evidence of your allostatic load to really see what is going on. By "current" I mean today, like right now, but it could also include recent, up to three months or so, as some of you think of your current stress/stressors as what you have now, which may be due to certain situations that began recently that are still happening. "Historical" includes the history of situations and events that have happened in your life both real and perceived, hence my categorising of your stressors as both psycho-neurological and physio-biological as they can be simply perceived in your mind-brain (psycho-neurological), or physical things (physio-biological) still occurring in objective reality. It also includes all the antecedent factors that are part of your make up as a human being: genetics, epigenetics and the like. For most of us, these situations or similar events are still happening as a product of that history, and some are just perceived in your mind-brain as a consequence of what happened. Essentially I aim to examine the more objective stressors from the more subjective stressors

so you can see the spectrum and deal with both effectively.

So to begin with, what needs to be assessed are the situations and events that have contributed to your allostatic load in the past and continue to do so in the present. You must look at this both from past and present because for the most part, the current stressors you are dealing with and the way you react to them are due to your past. This is in fact the very essence of allostasis and why the original thinking of us just being purely homeostatic creatures is inaccurate, as you are constantly adapting to your surroundings and the things that have and are happening to you, and your body-mind very intelligently finds a new equilibrium as fast as it can to adapt to changing circumstances. The more you are willing to confront and look at the antecedent events that have led to where you are now, the more access you will have to being able to be proactive about the allostatic load you have and thus the higher the chance you have mitigating any negative consequences of it into the future.

How you begin to do this is you can first look at the physio-biological factors that contribute to it now and in the past. To keep it simple and open up an inquiry and something for you to continue to explore, these can be but are not necessarily limited to:

- Your diet/nutrition/eating habits.
- Your level of movement and physical activity.
- Physical health.
- Gut health.
- Joints and muscles, bio-mechanics etc.
- Amount of sleep.
- The environment you live/work in both professionally and your home.
- Toxins that you may be exposed to.
- Your genetics and epigenetics – the latter of which is your environment/surroundings during in utero/pre birth/conception and the generations before you that you are a product of.
- Socio-economic status; your culture.
- Number of hours you occupy your mind and body (i.e. work).
- How much you are engaged in conscious activity versus downtime and disengaging from conscious activities (physically and mentally).
- Your relationships/social connections.
- Anything else you can think of that has a more objective observable consequence on you.

Next are the psycho-neurological factors that contribute to your allostatic load. Again, to keep it simple and open up an inquiry and something for you to continue to explore, these can be, but are not limited to:

- Threatening/traumatic/scary/highly stressful events that produced a high level of stress response in the past (mostly up until the age of 22/23).
- Things like failures, rejection, major humiliation or embarrassment.
- Physical or mental abuse, unhealthy social environments and the like.
- Your individual personality traits that shape your behaviour.
- Perceived threats to situations and circumstances that you encounter.
- Unconscious-automatic patterns of behaviour – habits,

behaviours and ethics that you have formed throughout your life in response to some of the stressful events or physiological conditions above, which have created very strong neurological patterns or set grooves in your brain.

- And anything you can think of as a stressor that is more subjective (in the mind) and has you reacting to the perception of something actually happening objectively.

The psycho-neurological stressors in today's world are the ones that I find are becoming the most prevalent and consequential as the demands of the environments we are in get higher and we are more overloaded with information to process that are beyond our physical and mental capabilities as a human species.

Here is a list of possible stressors I use for clients to give you some more examples to stimulate being able to examine what your allostatic load really is:

- Not exercising for long periods.
- Eating unhealthy foods constantly.
- Overeating.
- Being overweight.
- Thinking negatively for sustained periods.
- Reacting negatively to circumstances in life.
- Remaining under great pressure at work.
- Not disengaging and taking breaks from activities you are doing that require a lot of your energy.
- Drinking alcohol too frequently.
- Drinking too much coffee.
- Being resentful and angry about things that have happened to you.
- Not getting sufficient sleep or rest for several days.
- Not switching off your brain and relaxing weekly and not having down time.
- Driving in traffic and road rage.
- Chronic pain.
- Being late and in a rush to be on time.
- Missing a deadline for something due at work.
- Arguing with someone.
- Bad or negative relationships.
- Your children crying or not behaving and upsetting you.
- Trying to multi-task (FB, Skype chat, email, iPhone, request after request) and the incredible amount of information we have to process on a daily basis just to keep up with life.
- Toxins from smog, smoke or chemicals in the products we use.
- Smoking.
- Being overwhelmed by the amount of work we have to accomplish or our busy social calendar.
- Dwelling on events from the past that were negative.

"There are enormous individual differences in the response to stress, based upon the experience of the individual early in life and in adult life. Positive or negative experiences in school, at work or in romantic and family interpersonal relationships can bias an individual towards either a positive or negative response in a new situation. For example, someone who has been treated badly in a job by a domineering and abusive supervisor and/or has been fired will approach a new job situation quite differently than

someone who has had positive experiences in employment. How the individual reacts may carry over into habits such as smoking, drinking excessively, eating too much, poor sleep, lack of exercise and interaction with friends and family, all of which contribute to allostatic overload. Early life experiences perhaps carry an even greater weight in terms of how an individual reacts to new situations. Early life physical and sexual abuse carry with it a life-long burden of behavioural and pathological problems."

– McEwen and Felitti et al.

MANAGING YOUR MIND-BRAIN IS THE KEY

So now you have begun to understand and possibly examine the above types of stressors that are happening and have happened in your life and contribute to your allostatic load. Why I do so much work with my clients on dealing with the more obvious physical or external/environmental stressors as well as teaching them how to manage their mind and brain better, is because the brain really is the starting point of all of your reactions to everything in life.

"Stress begins in the brain and affects the brain, as well as the rest of the body... The brain is the key organ of the stress response because it determines what is threatening and, therefore, potentially stressful and also controls the behavioural and physiological responses, and resulting lifestyle, discussed earlier in this article, which are as important to development of allostatic load and overload as the stressful experiences themselves." – Bruce McEwen.

"Throughout the world, driven by advances in information technology and automation, our economy is gradually shifting to a knowledge and service-driven economy, where increasingly the basic production factor of muscle power is being replaced by brain-power. Although often compared to a muscle, the brain's anatomy and physiology is fundamentally different from those of muscles." – David Rock et al, *The Healthy Mind Platter*.

In summary, the aim of this article was really to have you understand the term allostatic load, and the importance of being able to apply this to your life to help you not only perform at your best in an ever changing marketplace, but to also live a more satisfactory life all round. It is too common these days from my working with business professionals, that due to the increasing demands and work load of their professional lives, they struggle to satisfy the other important areas of life they need to take care of, and sacrifice them at some level, just to keep up with their working life. I have demonstrated over and over with some of the "busiest" and overloaded high-level corporates that when they get their allostatic load under control, what seemed impossible to manage and confront before we started, seems now completely manageable, and where they saw no way to bring some balance and satisfaction to other areas of life, they now perceive and actually can take care of all of it – and are just much happier and conscious in life.

Those who learn to manage their allostatic load and the corresponding stress levels associated with it will be the ones who can sustain satisfying lifestyles into the future without burning out or the other consequences to relationships, kids, intimate others, no social time, abusing your body or having health breakdowns. I have simply focussed on one principle here in helping you perform better in life – if you want more practical tips or advice to understand how to manage your mind-brain and stress better, read my previous articles in M2. 

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