

# STRESS

## Conceptual Paper

### Stress is directly involved in the symptom-treatment disease paradigm

*“If stress was addressed 10% of the time it was talked about, it would not be the problem that it is today.”*

Just because something exists doesn't mean that it should exist, nor should it have the impact on the lives of the hundreds of millions of people, that it does.

Just because something is commonplace doesn't mean it is normal or natural. Tens of millions of people suffer from so many 'things' that they have been led to believe are 'normal'. The result of this is that they believe that the only option is for them to be treated and medicated by 'the system', be it drug, machine or surgery. Here is a partial list of very common ailments. **Not one is normal or natural:**

Inability to breast feed after birth.	Attention deficit
Colic and allergies	Chronic tiredness
Poor sleeping patterns	Stress
Bedwetting	Sleep apnea
Asthma	Head, neck and jaw pain
Eczema	High blood pressure
Snoring	Digestive disorders

I could go on and on, basically listing all the ailments that you find "cures" for in popular magazines, on Television advertising as well as on Pharmacy shelves.

### We will only ever 'catch' one of four conditions in our lives.

- Viruses
- Bacteria
- Parasites
- Fungal infections

Almost everything else is created as a consequence of what we are doing. And - most of what we are doing is driven by stress of one type or another.

It is no secret that very few true "Health Systems" exist - they are rather very professionally run, extremely wealthy and profitable "Disease Management Businesses" and, like all businesses, are bottom-line focused. All businesses want more customers and want to sell them more products - and the Business of Medicine is no exception.

As a trained pharmacist of the 1960s, I have spent more than 50years watching the pharmaceutical industry develop. Cynicism aside, and not wanting to be accused of supporting a 'conspiracy theory', what I see is a system which all but guarantees a never-

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ending supply of eager - even almost willing people - to try the latest offerings. The advertising is very seductive to say the least.

There is a reason for this, and it has become an epidemic of a largely Western style disease called 'Average Health'. Without anyone deliberately doing anything, the way we live, eat, sleep and respond, and the nature of the Western health model of symptom diagnosis and largely medicated treatment, we are caught up in a cycle of living which:



- Creates Stress
- Promotes Stress
- Diagnoses Stress
- Uses medication to treat Stress

This 'vicious circle' will continue unless we are able to interrupt this cycle using non-medicated means.

Well - what better solution to the problem of Stress than to take a clear, uncluttered and scientific look at the three most important aspects of this global epidemic.

What better place to start than to really simplify how all this stuff works. It is so easy to get caught up in the big Latin words and descriptions and to have our minds bent out of shape with rows and rows of chemical formulae which so very few people really understand. So let's make it simple.

### For the world to function efficiently it has to be in balance

So do we - and nature has provided us with some incredible systems to allow this to happen. Mess with these systems and chaos follows.

Obviously we have to be able to react, move, run, hunt and protect ourselves. This uses a part of the nervous system called the *Sympathetic* - and that primes us for action. If we didn't relax and recover after that action, we would burn out - so the other half of the nervous system is called the *ParaSympathetic* - and that allows us to get back into balance.

Obviously, if we spend too much time in *Sympathetic* and not enough time in *Parasympathetic*, we are going to burn out, get tired, sick, suffer injuries etc. so we have a monitoring sensor in the brain which is designed to control how much time we spend in each phase.

The ideal resting balance is for us to be in *Sympathetic* around 40% and in *Parasympathetic* for 60% of the time - and if we do that we will be well. Our bodies are designed to follow this pattern.

What few people understand and remember is that when you Inhale - you drive *Sympathetic* and when you Exhale you activate *Parasympathetic* - so our breathing should be based on a shorter inhale and longer exhale. Just think about this for a moment.

When you're stressed and bothered you often sigh - and doesn't that feel good? Well, that sigh is extending the Exhale and keeping you in recovery a little longer than usual - so you feel better.

Obviously it is a lot more complex than this and involves nerves muscles, hormones, feedback loops, signaling pathways etc. - but why complicate things unnecessarily?

The sad fact is that the majority of the Western World has their breathing back to front, whilst those who follow Eastern cultures usually do it the right way. Think of any martial art, yoga, guided meditation or whatever else is embraced - ***it is all about the breath.***

The Yogic philosophy is that life is not about days, months or years - it is about the number of breaths in our body - and that when we use up the last one is when we depart. So they're pretty good at math - and worked out that if they breathe slowly, they will live longer. And they do, and they are healthier, and they don't get cancer, heart attacks and suffer the other 'modern diseases' anywhere near the degree that we experience in the West. Think about this for a moment.

### **THE PRIME FOCUS OF THE BRAIN, THE MIND AND THE BODY IS ON 'TAKING THE NEXT BREATH'!**



***Is that not reason enough to closely examine what it is that allows for balanced functional breathing, but more importantly, what causes breathing to become dysfunctional?***

So what is the link between Breathing and Stress? It is too simple - the only thing that changes your Breathing is Stress. But we do have to look a little deeper than this one-liner, and the rest of this article is going to focus more closely on what actually happens in this stress-breathing relationship.

### **WHAT IS STRESS?**

***It is not the situations that are stressful - it is our responses that are stressed.***

- |   |  |
|---|--|
| i. Traffic is motor cars, buses, trucks, roads and thoughtless drivers. | <b>You</b> create the traffic stress.  |
| ii. Your office is desks, chairs, computers and people.                 | <b>You</b> create the office stress.   |
| iii. Your home is family, kids and responsibilities.                    | <b>You</b> create the domestic stress. |

### **WHY IS IT IMPORTANT TO DO SOMETHING ABOUT IT?**

- i. Because stress affects every single one of your body's systems and causes health issues.
- ii. Breathing controls your blood chemistry.
- iii. Blood chemistry controls the oxygen supply and delivery.
- iv. Oxygen is vital for healthy cells, growth, energy and good sleep.

### **HOW CAN THIS BE DONE?**

- i. You can't change the situation at hand.
- ii. You can't control external forces.
- iii. You can change the way you respond.
- iv. You can decide to create a solution rather than react. (They use the same letters - just remix them),

So let's look at the three stages above in a little more detail and you will see that it is quite simple to make changes. All you have to do is do something differently from the way you usually respond.

- i. You will be in the same place, with the same people and the same situation.
- ii. You don't have to change anything there.
- iii. All you have to do is make the decision to approach the situation from another angle.

See? It is simple. Please remember - *I didn't say it was easy - just simple*. The hard part is to make the decision to change your approach, and that is something that only you are able to do. It is not up to anyone else to change you. That is your job.

Now there are a few simple things that you can do to make this all easier.

- i. Learn to balance your breathing so that you will be in rest and

recovery more than fight or

- ii. flight. Look at the situation for a moment or two before deciding what to do.
- iii. Do not start off with "You" start with "I" instead. This immediately takes the heat out of the situation.
- iv. Look for a way to create - rather than react. Just jumble the letters around in your head.

**Table I** These are not just statistics - they are your patients and clients<sup>5</sup>

Condition	Stress link & consequence	Ref	Treatment
Ageing	Shorten telomeres memory impaired Shrinks hippocampus	6	Medication supplementation
Blood pressure	Vasoconstriction Tachycardia	7	Medication
Bone strength	Lower bone density Reduced calcium uptake	8	Medication
Brain function and anxiety	Amygdala size and activity increase Hippocampus reduces in size	9	Medication
Cholesterol/triglycerides	Increase LDL Lower Trig clearance	10	Medication
Digestion	Reduction in blood supply Gut spasm, Enzyme reduction	11	Medication
Hair loss and color loss	Hair growth stops or slows down Melanocytes change composition	12	Medication
Heart disease	Hypertension, cholesterol & obesity	13	Medication - surgery
Immune system	Cortisol dominance ANS imbalance	14	Medication
Mood and depression	Disturbance in blood and brain chemistry	15	Medication
Muscle health and recovery	Energy drawn from protein Muscle breakdown	16	Medication
Muscle tension	Stress hormones shorten muscles for Fight/Flight	17	Medication
Skin health	Distressed breathing reduces oxygen release causes cell death	18	Medication oral as well as topical
Sleep	Cortisol dominance Circadian dysrhythmia	19	Medication
Teeth grinding & gum disease	Airway dysfunction causes bruxism pH change to saliva causes gingivitis	20/21	Cpap, oral appliance periodontal therapy
Weight gain	More fuel produced - less used Increased blood sugar levels	22	Medication gut surgery

### Facts and figures

Now is probably a good time to look at the facts and figures surrounding stress - in daily life as well as in the workplace and see the impact that it has on our lives and the lives of those around us.

- i. Hundreds of billions of dollars are lost worldwide, each year, on stress-related illnesses.<sup>1</sup>
- ii. 75% of doctor visits are related to stress in one way or another<sup>2</sup>
- iii. 66% of people believe that stress has a noticeable effect on their physical health<sup>3</sup>
- iv. Researchers at Penn State University (PSU) assessed 2000 individuals over a 10year period. Those who were high stress responders were found to be more likely to suffer from serious health issues 10years down the track.<sup>4</sup>

v. By now it should be obvious that not one of the conditions listed above was 'caught'. They were largely created, and/or aggravated, by poor posture, nutrition, function, breathing, stress and the other culprits of our Western lifestyle.

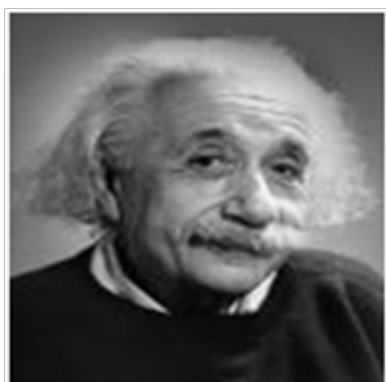
- vi. Traditional medical management, as you will have noticed, is diagnosis/medication/intervention/surgery. This is not surprising because the university training in both medicine and dentistry focuses almost entirely on the dysfunctional conditions of the body, how to recognize them diagnose them and treat them.
- vii. In addition to this, the major emphasis is on interventive symptomatic treatments with very little attention being focused on the etiology. This is Medicine and Dentistry based on *dysfunction*.
- viii. **Functional** Medicine and Dentistry focuses on the why rather than the what - and there are many ways that changing behavior can change the outcome.

- ix. There is no doubt whatsoever that there are significant benefits in drugs, medication, surgery and other interventions. Our first role as health practitioners is to address pain, discomfort and to get our patients stable and as comfortable as possible.
- x. These acute measurements are life saving and are a blessing - however - they are not always suited for the long-term maintenance of the symptoms which have been caused by repetitive poor behavior patterns. Unfortunately, many of them simply continue after the event and become the long-term, chronic disease maintenance strategy.
- xi. The human body is a complex construction and understanding it fully is beyond the scope of any one profession or modality.
- xii. It is vital to future human health and wellbeing that we embrace whatever modality is appropriate - whether or not we provide it ourselves.<sup>5-22</sup>

### **Optimal health is not optional health**

#### **We have a duty to those who place their health in our hands.**

There are three quotes which I feel are very applicable to this discussion - and they appear below.



**EINSTEIN**

Insanity is repeating the same behavior and expecting a different result.



**VOLTAIRE**

The art of medicine is keeping the patient entertained while nature cures the disease.



**KEYNES**

It is better for the reputation to fail conventionally than to succeed unconventionally.

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None.

### **Conflict of interest**

The authors declare there is no conflict of interest.

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