Chronic Stress Impact on Your Body

The doctor says I'm not sick but I know I'm not well. Have you ever thought this statement to yourself?

- Your body aches all over and it is hard to get anything done.
- You feel anxious or depressed over simple life events.
- Your ability to concentrate at work and at home is diminished.
- You have to drag yourself out of bed each morning.
- On the weekends you sleep until noon but still feel tired.
- Your weight has become unmanageable.
- You seem to catch every virus that you are exposed to while others never get sick.
- You have become allergic to everything.
- Your stomach stays in knots and you're easily overwhelmed.
- You feel like you have lost your edge and are no longer in control.

Do these symptoms describe you or someone you know? If so, you are suffering from the physical symptoms of chronic stress, also known as adrenal fatigue.

Unfortunately, millions of Americans suffer from undiagnosed stress-related illnesses. Routine lab tests are often normal leading doctors to believe that patients are physically well. Patients often are diagnosed with depression, anxiety, sleeping disorders, chronic fatigue, or fibromyalgia. Prescription medications such as anti-depressants, anti-anxiety medications, sleeping pills, synthetic hormones, pain medication, allergy medication, and antacids are prescribed to alleviate symptoms. Does this over medicated existence sound like your present life situation?

You know that your symptoms are real .....and you are not happy at your present level of health! You are also certain that you're not depressed and are somewhat resentful that some doctor has offered you prescription medications without a definitive diagnosis.

Routine blood tests often fail to identify decreased adrenal function if the condition has not progressed to the point of outright disease due to their wide range of “normal” values. This newsletter will focus on how stress affects the body and the use of saliva testing to diagnose adrenal stress related illnesses. We will also discuss how to restore normal adrenal functioning by using supplements, diet and lifestyle changes. Restoring adrenal function allows the body to function normally and avoids the need to use drugs that only relieve symptoms.

Stress - what is it - and what can I do about it?

We often complain about stress, however most of us don't know how it affects our physiology or our body's ability to function. 75 to 90% of all visits to primary care physicians are due to stress-related conditions. This staggering statistic alone warrants that patients and doctors have a clear understanding of how stress affects health!

Stress is classified as any disruption in homeostasis, in other words, any disruption in physiologic or emotional balance. The classic example of stress is the fight or flight reaction to a life-threatening event. This stress reaction is an instinctive stress response that is common to all mammals. When faced with a threatening situation, all body systems maximize efforts toward running or fighting because an alarm has gone off that there is a life-threatening stress.

Nonessential functions that do not aid in fighting or running are neglected in favor of systems that do take part in fighting or running from a threat or stressor. The stress response serves us well as we are attempting to avoid physical danger allowing us to escape potentially life-threatening circumstances. However, most of us never face life-threatening situations but instead are confronted with regular, and often unrelenting, emotional stressors on a daily basis – our body's stress hormone factory never gets to slow down production in periods of rest and relaxation, and they can't keep up for extended periods of time....and begin to fatigue and wear out! Emotional stressors do not require that we run or fight but require prolonged intensive thought and decision-making processes. Unfortunately with time, the prolonged physiologic effects of the stress response eventually takes its toll on our bodies.

How does stress affect me?

To better understand the long-term effect of stress on our health, let's review the physiological changes that occur in response to stress. First, our body increases blood flow and energy (glucose) to our muscles to maximize muscle strength and agility to ensure that we're prepared for a possible long flight or run. Our heart rate, blood pressure, and breathing increase as well thereby providing more energy and oxygen to our muscles. Blood glucose (sugar) levels in the blood are increased to provide more energy. Brain function and alertness is increased allowing us to think quickly

All other functions that are not related to the stress response are neglected. Bowel function is decreased, hormone production is disrupted, thyroid and kidney function is suboptimal, the immune system is decreased, and insulin, blood sugar (glucose), and lipid storage control are neglected because the muscles need a maximum supply of glucose. This shift in priorities works well as long as the stress is short-lived. Think of the African Lion relaxing under a tree until his

stomach signals time for a meal – stress hormones kick in and the he's off to get his lunch. He eats, and then his stress hormones drop to normal levels as he prepares to nap and digest his meal. This is how our bodies were meant to deal with stress – in short bursts interspersed with periods of rest and relaxation! Does this sound like your present life situation?? If your stress becomes or is chronic or prolonged the stress response causes more problems than it prevents.

Chronic stress

As the stress becomes chronic the shift in priorities becomes a problem. Chronic stress may be due to work or family crisis, chronic illnesses, infections, pain, financial problems, loss of a loved one, or an environmental exposure. Prolonged stressors, even though they're not immediately life-threatening, can be a source of much anxiety and eventually lead to depression. Cortisol is your major stress hormone produced by the adrenal gland, which looks like a stocking cap on top of your kedneys. Production of cortisol takes priority over all your other hormones!!! This hormone mediates the physiological changes that occur in response to stress. Cortisol production takes priority over female sex hormone production that leads to irregular periods, and worsening PMS, peri-menopause and menopausal symptoms. Chronic stress decreases thyroid hormone function, and this decreased thyroid function causes fatigue and weight gain. Insulin function is decreased causing elevated blood sugar and eventually diabetes. Bowel function is altered causing a decrease in absorption of nutrients and irritable bowel symptoms.

Tired in the morning... Wired at night

Eventually, the body's ability to make cortisol at high levels diminishes – your adrenal glands fatigue. In healthy individuals cortisol is almost normally elevated in the morning and decreases as the day progresses. This allows you to be alert and productive in the morning and to wind down as the day closes so you can sleep at night. With prolonged stress, adrenal functioning diminishes. As cortisol levels drop, so does your ability to cope with daily stressors. The normal rhythm of cortisol production may become so dysfunctional due to prolonged stress that it becomes reversed, leading to low cortisol levels in the morning and high nighttime cortisol levels. These reverse cortisol levels produce fatigue during the day and insomnia at bedtime thus making you feel tired and wired.

Stressed and Tired

If the stressors continue, the adrenal gland begins to fail leading to chronic fatigue, anxiety, depression, insomnia, poor bowel function, abnormal insulin and glucose function, abnormal cholesterol and triglyceride metabolism, diminished sex hormones and thyroid functioning, and a decline in mental functioning. Patients with adrenal dysfunctions are also more likely to develop cancer, autoimmune diseases and infections. Patients experiencing adrenal fatigue are

often misdiagnosed with depression because of their symptoms of fatigue, and inability to handle stress, mood swings, obsessive worrying, insomnia, weight or appetite change, decreased libido, and decline in mental functioning. Without appropriate testing, these patients are prescribed antidepressants and sleep aids to relieve their symptoms. However, these medications don't address the underlying problem; therefore, the patient must rely on medications to function! When and if they are stopped – guess what – the symptoms return or worsen! Correcting adrenal dysfunction eliminates these symptoms thereby limiting the need for symptom relief prescription drugs and their potential adverse side effects.

Saliva testing and Stress

The best way to test for the effects of stress is through saliva testing. NASA and the US Air Force use saliva testing to test for adrenal fatigue in fighter pilots and astronauts. Saliva testing is much more sensitive than blood testing and can spot early abnormalities, unlike the values used as “normal” for blood testing, which usually only evaluate end stage disease or outright failure of the target hormone system! The simple home test requires that you produce saliva samples four times over the course of the day. The results of your saliva tests allow the physical effect of stress on your body to be measured and quantified. Adrenal dysfunction can then be corrected and balanced.

Treatment and Management

Your treatment plan will be unique to your bodies’ needs - severe levels of adrenal gland dysfunction may require the use of short course(s) of prescription biomedical cortisol. More moderate levels of dysfunction may be treated with combinations of nutritional supplements designed to assist your adrenal glands in recovery from the effects of stress. Dr. Rohde can discuss the various options available for your specific test results when results are reviewed.

Last, but most importantly, you will need to re-educate yourself about your present life situation. You cannot expect your body to continue with your present stressors that have brought you to this point in your life! The realization that you do indeed have a problem that needs to be corrected is the first step toward your renewed health – we need to work out a plan for your recovery and help you acquire new tools to work your plan! This is not unlike getting a set of blueprints and some new tools to build a house – remember a VITAL fact – if you could have fixed the problem on your own by now – you probably would have! Let us work together toward your goal of healing and health!