An Anatomy of Stress Inside Your Body

We all know how stress makes us feel- that is easy to explain. But how much can you say that you know of what is actually happening to the organs and systems in your body that is resulting in these feelings? Not much at all, and in some cases, physical changes do not need to occur- only chemical processes.

Regardless, it is good to get a "visualization" of what is going on inside your body, as it helps you develop a greater understanding of the dangerous effects stress can have, and if possible ways to help combat it.

On the Heart And Blood Vessels

The heart is a muscle in the purest sense of word; a healthy heart has very little fat, and is extremely efficient, contracting like clockwork for the duration of your existence.

However, stress hormones change all this. For one, under their influence, the heart starts to beat much more rapidly, partially in response to the stimulating action of these hormones, but also because blood vessels are constricted. To understand this, think of a water pump.

You can use a think one-half inch pipe to supply water, or a large one-inch sized type. When using the half inch size, the pump needs to work harder to push the same volume of water, or it would take forever. It is similar with your heart, except that it has a quota to maintain to ensure your cells don't die from oxygen starvation.

Digestive System

Do you ever notice that when under stress or anxiety that you feel "butterflies" in your stomach, and find it difficult to hold your food- or bowels? This is directly the result of these hormones.

For one, under stress the stomach produces more acid, which either helps speed digestion (and the desires to empty your bowels) or acid reflux and heartburn. This is why stomach ulcers are said to be more frequent in people who are under high stress.

In the intestines, since food seems to move faster than usual, nutrient deficiencies can occur, along with diarrhea.

The Respiratory System

Respiration is tied intimately to our circulatory system, which in part explains why during exercise your hear pumps faster and you breath faster. This is because blood needs oxygen. In most people this is fine, and not a problem, but in asthmatics or those with pulmonary disease it can kill you. Stress can precipitate asthma attacks, or constriction of the airways making it difficult to breathe. Hyperventilation is also common, and a characteristic of a panic attack (or insensitivity to adrenalin).

The Reproductive System

Nothing wrecks a sex life like stress, as millions can testify to. This isn't just psychological, however, but also physical when it interferes with a man's ability to achieve and maintain erections. In women, menstrual cycle disturbances occur, which can cause painful periods or wildly fluctuating hormone levels throughout the month.

In men, cortisol interferes with the normal production of testosterone via the testes, so that sex drive crashes. Do not take work into the bedroom- your sex life may never recover.

Endocrine Glands

Endocrine glands are those body parts (some of them organs) that produce hormones which are deposited into the body's blood stream. These include the adrenal glands, the liver and pancreas for example. The adrenal glands are forced to produce more cortisol and adrenalin- the two key stress hormones.

In response to this, the liver may begin releasing stored glycogen in the form of glucose, to tend to your seemingly agitated state. The pancreas may also begin producing more insulin, and if the stress response resolves, everything goes back to normal.

However, those that are diabetic, pre-diabetic or who have sensitivity issues to glucose will find not all that circulating sugar goes back into storage, and instead is free to pick trouble. This is why stress is very bad for diabetics.