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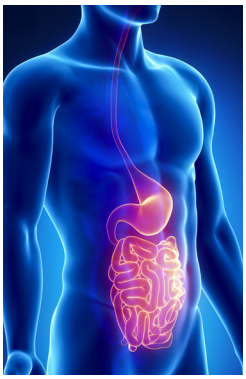
NEWSLETTER



The Obesity Epidemic

REDOX Roots

The industrialized countries of the world, especially the United States, continue searching for clues to the obesity epidemic that have been occurring over the past 40 years. This month's theredoxdoc.com newsletter will shed some new light on this problem and offer some solutions, which include activating our redox potential.

LET ME WALK YOU THROUGH a metabolic timeline, which will detail the cascade of physiologic events driving this obesity steamroller. In addition we will discuss how we can take steps to intervene in multiple areas of this dreaded cascade toward obesity.

Food:

Calorie-dense starches and sugary foods deliver informational signals to certain gut flora (bacteria). These flora are known to help us during times of survival. These bacteria also divert calories to the liver to assist with food storage. The calories are stored as fat, instead of creating energy for muscle etc. The micro biome of our gut genetically drives this food storage. Therefore we gain weight, as though we were in a survival situation, as our body thinks it needs to conserve every calorie. Weight gain can occur when consuming calorie-dense foods and those high in sugar, even if you are restricting yourself in other areas.

Survival Bacteria-

Survival bacteria (those we just discussed) are also known to cause inflammation if they are overly prevalent. Eighty percent (80%) of our lymph nodes are located near the small intestine. When these lymph nodes are under stress they send out inflammatory cytokines, which circulate in the body, causing a now worried immune system to attack our internal organs.

Increasing Inflammation-

This type of inflammation causes certain transcription factors, which are intracellular messengers, to elevate. One example is nuclear factor kappa-beta. This state of elevation leads to oxidization of multiple targets, a process called oxidative phosphorylation. One of the most common targets in this attack are the bodies insulin receptors.

Degraded Insulin Receptors-

Insulin receptors are needed to provide a way for insulin to help food calories enter a cell. When insulin receptors are healthy, we easily receive the insulin which fits like a key in a keyhole and opens the door to allow food into the cell. If the insulin receptors are oxidized, they are rendered inactive and food cannot get in the cells. This leaves us feeling weak and our blood sugars rise as well.

See: Journal of Antioxidants and Redox Signaling Vol. 7 Issue 7-8 July 2005

Solutions:

At every step of the cascade towards obesity, supplementing REDOX molecules can help weight regulation as outlined below:

Bacteria:

Friendly (non-survival) bacteria thrive in the presence of REDOX molecules. Unhealthy bacteria do not tolerate the healthy REDOX balance, which

What Can We Do to Battle Oxidative Stress? (cont'd)

make them unable to replicate at the same rates as friendly bacteria. By choosing micro biome friendly foods like fruits, vegetables, lean meats, legumes, and eggs you will also increase the health of your micro biome.

Inflammation:

REDOX molecules, in a balanced formulation, provide the needed resources for reducing inflammation by activating the effectiveness of our native antioxidants like glutathione, and SOD. These antioxidants will inhibit the degradation of insulin receptors and lead to a more youthful metabolic picture, including weight balance.

If you are looking for a video presentation on this subject go, to our video subscription service found at theredoxdoc.com. There you will be able to subscribe to the video on obesity, as well as the remainder of our video library on health topics.