

► **The Importance of the Immune System in Aging & Disease**  
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We age because **the biochemical processes that sustain life generate toxins that cause damage which accumulates despite endogenous repair. Three processes are involved in Aging: Reduced Metabolism, Increased toxicity & decreased immunity. Decreased immunity is the result of Inflammation and decreased immune cell communications. Aging is associated with a steady decline in the production of fresh naïve T cells; Restricted T cell receptor (TCR) repertoire -- decreased T cell communications & weak activation of T cells. Innate immune cells produce pro-inflammatory cytokines that act on the brain to cause the symptoms of depression in the aged. Visceral Fat also reflects increased inflammation. Blood carrying visceral fat cells that are stuffed with excess triglycerides take free fatty acids into the liver, pancreas & other organs causing dysfunction, impaired regulation of insulin & cholesterol. C-reactive protein concentration were 0.98 (95% confidence interval = 0.78–1.23), 0.85 (0.70–1.02), & 0.53 (0.40–0.71) for participants who engaged in light, moderate, & vigorous physical activity, respectively, during the previous month compared with participants who did not engage in any leisure-time physical activity. However, obese patients have difficulty exercising. Clinical Evidence has repeatedly shown that effortless exercise serves as a solution for obese and metabolic syndrome patients, as well as patients unable to exercise. Effortless exercise has three four aspects. 1. Signaling compatibility with motor nerve signals on the basis that CNS discards all signals that are incompatible with its signaling network. 2. Resonance between output signals and inherent motor nerve signals resulting in lightening waves of motor nerve signals that spread via the CNS network to reach brain and result in the release of thyroid and growth hormones from the pituitary gland that will utilize the contents of the adipose cells as energy source to build new muscle mass. 3. Simultaneous utilization of visceral fat deposit and detoxification by signaling mechanisms that involve the lymphatic system, the function of which is reinforced by the experimentally observed phenomenon of blood separation that carries waste products to the liver and kidneys to be eventually excreted. 4. The additional benefit of blood separation resulting in more efficient transport of oxygen and nutrients to the cells as well as antibodies to their sites of action ultimately rejuvenation and strengthening the immune system which as previously discussed is central in the aging vs anti-aging processes.**

**The role of signaling in maintaining the integrity and optimum functioning of the immune system is of fundamental importance. Decreased immune cell communications with aging have been shown by a number of studies which are cited in this presentation. The definition of signaling and examples of how it occurs in the body are also delineated via a number of studies that illustrate its complex and often counterintuitive or paradoxical existence. Cambridge University observed that distant cells can communicate by a twitch of their axons and a rapid cell contraction to computer generated resonant signals. Such awkward communication effects have been consistently reported by Quantum**

Physics experiments on the phenomenon of entanglement of primary elements such as electrons. We see the same phenomena of entanglement in the communications of unconnected cells which appear to respond to each other irrespective of the distance between them without hormones or other communication agents. Therefore, signaling occurs not only between cells we can identify and observe under the microscope but between a large variety of distant cell societies that are outside our scientific knowledge and awareness. Other studies have observed protein conformational changes in response to computer generated resonant signals suggesting that signaling output signals can and shall change the functioning of our bodies as long as they are compatible with inherent biological signals so that a resonance can be formed between them. Biocompatible resonant output signals can penetrate through all the layers or skin, muscle and bone via passing the signals through the ion channels of the different types of cells – an event that can only occur during extremely miniscule energies that are below thermal noise. Such penetration has been mathematically proved since 2008 and is outlined in detail in the book “Electron Gated Ion Channels”. Clinical studies on wound healing, melasma and acne are presented conducted by medical doctors around the world by a technology that utilized such miniscule energies to pass compatible resonant output signals through the cells’ ion channels in order to replenish and revive signals that have deteriorated with age.