

## **Inflammaging**

Distinguishing the difference between precision of training and nutrition toward results is what separates the cortisol junkie from the happy and complete weight lifter. With the birth of many fad cults in the fitness world, the market has become flooded with workouts not conducive for the everyday iron warrior. Understanding the basic science in what occurs to the body during training enables our coaches and iron athletes to try to factor in more precise lifting regimes and dietary measures.

Exercise is a stressor which enables the release of stored energy for the use of muscular contraction. Release of energy within the body increases the state of acidity to our blood Ph levels which initiates a cascade of hormonal events. Stress is vital for optimal apoptosis which leads to optimal homeostasis, however the duration and frequency to which we expose ourselves to stress can be beneficial or detrimental. To completely understand what benefits exercise and diet may have on the body we will be categorising two major systems to which both stimulus (exercise and nutrition) effect the body as a whole, namely the neurological and physiological systems, both of which integrate toward optimal health.

### **Neurology**

The connection our mind has with our bodies is termed the neuromuscular proprioceptive relationship or NPR. NPR is regulated by a cascade of synaptic responses sent to and from the body and mind which can create everything from movement to increased gut motility. When we exercise we increase the acidity of our blood Ph, which disrupts our electrolyte balance. The disruption of electrolyte balance will affect the conductivity of synaptic response within our bodies. The duration that we cause disruption to the synaptic response between tissue of our body and our minds can either cause adaptation to learning a new skill or improving on strength within a given skill, over training however can cause a massive disruption to our motor control, particularly to local muscle spindles. When our muscle spindles and associated Golgi tendon organs are over stimulated, we develop compensation patterns to movement which leads to overuse of tissue that either assists in the movement becoming the prime force producer to that movement or in an extreme case prevention of lengthening of antagonist tissue in the protection of a particular joint. Thus when a cortisol junkie runs into the gym and rolls the hell out of tissue which is already inflamed (as it hasn't recovered from previous training) before exercise only compounds the hyper-inflammatory effect of over training which only leads to a negative outcome: hyper-catabolism.

### **Physiology**

The process of inflammation and anti-inflammation is required for the release of many hormones, not to mention the regulation of cell death which is essential to prevent disease such as cancer. Excessive release of stress hormones will release glucose into the blood creating an environment of excessive blood glucose concentration. Heighten levels of blood glucose causes our blood to become 'sticky' which slows down circulation and all other regulatory systems involved in detoxification and cellular turnover. AGES (accelerated glycolated end structures) is detrimental to our immunity and will only exacerbate the possibility of heart disease and possible diabetes. Thus when we train on a continual basis of

inflammation we will only compound the negative effect exercise may have on the body. So what do we do to ensure balance is met to our two major stimuli?

1. Frequency of training should be set to the point in which you do not overload a specific tissue more than 72 hours apart
2. Install recovery strategy such as hydration, sauna, massage and anti inflammatory nutritional additions to reduce inflammation after training, thus improving circulation and the turnover of unwanted exercise metabolites
3. HYDRATION: biggest overlooked factor, not enough water will only impair circulation thus increasing state of inflammation within the body
4. Regular intake of food (that doesn't contain excessive amounts of inflammatory properties such as refined sugar or trans fats) every 3-4 hours to ensure balance of blood glucose profile.

Forge Your Status.

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