Control your Stress: Chew your Food!

Nutrients provide our bodies with the raw material to function. Depending on the density and variety of nutrient consumption, one can merely exist or flourish! There are two categories of nutrients, namely Macronutrients and Micronutrients.

Macronutrients are classified into three categories: Protein, Carbohydrate and Fat. Each classification of nutrient provides the body with its own unique form of energy. Proteins aid the body with everything from immunity, energy turnover, detoxification, neurology and a multitude of DNA responsive physiological changes. Carbohydrates provide the most readily available form of energy of the three macronutrients, easily digestible and react as the most immediate stress modulating macronutrient of the three. Fat has the densest source of calories and energy for the body, fats provide a network for healthy cellular function and hormone production. Fats may not be the most immediate stress modulator but they are the most effective in reducing inflammation if the right sources are chosen.

Micronutrients are classified best as vitamins, minerals and phytonutrients. All Micronutrients react on a cellular level with the body, as such although they may not be an immediate source of energy as macronutrients are, they do provide balance to systems with utilize energy efficiently. Thus, micronutrients are vitally important in the maintenance of our engines allowing us to burn fuel and recover effectively.

When we eat nutrients, we go through a complex process of breakdown. Below is an excerpt from my book ARP3 (iBook's), which gives you the basic idea what happens and where it happens in the body:

Food consumption starts the digestive process below:

1. Oral cavity, where salivary glands release amylase to start the breakdown of carbohydrates and initiate the release of hormonal factors that will aid chemical digestion
2. The Pharynx functions as a flap separating food into the esophagus and keeping it out of the windpipe.
3. The stomach then starts the chemical digestion of food by way of HCl release, which initiates enzymes to react with proteins, fats and carbohydrates.
4. Peristalsis and segmentation occur in the small intestine that mixes bile, pancreatic juice and other intestinal secretions to force the food forward along the small intestine. As food passes along the small intestine, villi found in this area will absorb most nutrients before shuttling chyme into the Large intestine
5. Large intestine (colon), in this phase water is completely absorbed from the food and the process of feces compression begins. Bacterial fermentation is mostly produced in the large intestine, and as such, if food consumption does not contain adequate good bacteria one may find themselves to have a harmful bacterial balance.
6. Finally, food is then excreted by the rectum through the anus.

Digestion is a complex process that requires multiple enzyme and hormones to initiate nutrient assimilation. When any are of the digestive system is under stress, the whole system will fail to be completely productive in processing foods for nutrient density.

The process of nutrient assimilation is closely reliant and on how we eat our food. Taking the time to chew your food initiates the relation between gastrin and amylase to start nutrient assimilation. When we gorge our food without taking the time to chew properly we will note a dramatic reduction of gastrin release. Now why are we so concerned with the release of gastrin?

This body of this article will provide you with a little insight as to what Gastrin is and how it can affect nutrient assimilation and in turn reduce stress hormone output, thus regulating insulin receptor sensitivity.

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Homeostasis is a process of anabolism and catabolism. When we are stressed we released sugar from stored energy in our bodies toward our blood stream. Release of sugar into our blood provides energy for our brain and bodies to perform, thus energy production requires a process of stress-induced catabolism.

After consuming food, we release a cascade of hormones that facilitate the pancreas, gall bladder and liver to release and 'active' digestive enzymes. Thus, when we eat food we are inducing a state of anabolism in the balance of our homeostatic control of blood sugar. Therefore, preparing the gastro-intestinal tract for nutrient absorption is highly important. Chewing your food properly and taking the time to eat a meal will dramatically reduce your inefficient nutrient assimilation. Ailments such as Dysbiosis, IBS, Chromes and a host of many digestive issues cause havoc not only to our stomach but to our entire physiology. Taking the time to enjoy your meal will increase enzyme activity and reduce your potential risk of any ailment by a large degree.

The site of food starts it all! When we set our eyes on food our bodies release Gastrin, which initiates the release of amylase in the salivary and pancreatic cells. As we start to chew our food, the growing relation gastrin must amylase increases thus we start to produce more HCl and initiate the nutrient assimilation process. Eating in front of a TV or whilst writing an article (guilty) is not a good idea as the brains hardwiring is set in a mode of fight/flight or rest, sympathetic nervous system dominance will reduce your ability to be calm and breakdown food! When we concentrate on eating we eat slower and enjoy our food, thus making a shift in your eating habits can help. Set your gasto-intestinal system up for success by maximizing the gastrin-amylase relationship by eating in a stress-free environment and taking the time to chew your food.

To provide you with a measurable guideline I recommend the following

1. **Eating time vs caloric density. If you are trying to maximize nutrient assimilation, eating in accordance to the calorie density of your meal sets a bench mark. Aim to take at least 10min to consume 500calories in a day, thus if your following a dense calorie plan you may spend up to 1hr each day just eating. Foods providing dense caloric value with little need for mastication often only disrupt blood sugar balance leading to immunity issues causing a host of inflammatory degenerative issues.**
2. **Prepare your gut!!! Hydration is often neglected as a vital nutritional strategy. Poor hydration causes reduction of sensitivity to villi of the small intestinal brush border. As the small intestine is largely responsible for assimilating micronutrients, one can understand how vital drinking water can be. Aim to drink 500-1000ml of water to start your day waiting 30min before your first solid meal, note the increased sense of satiety you may feel for longer periods of time, not to mention an increase in mental clarity.**

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