



## REDOX and our Digestive Health

*What Is It? And, What Can We Do About It?*

The past 5 to 10 years have yielded major advances in understanding how the balance of the bacterial diversity in the gut (microbiome) influences our genetic potential, immune system health, and digestive metabolic rates. At the core of this bacterial echo-system balance, is the way REDOX molecules provide resources to help the bacteria repair, restore, and replace themselves.

**USUALLY WE THINK OF GUT HEALTH** in terms of how the lining of the gut repairs itself from inflammation or cell wall impairments. Science now has shown us that the secret to our gut health lies in the bacteria within the gut. Lets put this in perspective: 90% of the cells within our body are not even ours. They belong to the tiny bacteria that live in the GI tract. Their diversity, population numbers, and specie types, literally direct the integrity of our health.

“Good” bacteria living within the gut can even guide our own gene expression! The purpose of this is to help us adapt to a changing nutritional environment. Our nutritional health is optimized through supplying our body with the right nutrients packaged properly for metabolism. Good bacteria grow best with plant-based foods. “Bad” (pathogenic) bacteria grow like weeds on any food source but they particularly love sugar and starchy foods. Growing a good balance of beneficial bacteria in your gut eco-system unlocks your full metabolic health.

Good bacteria in the gut love REDOX molecules. In the *Journal of Microbiology*, 2012 Vol. 81, the authors demonstrate that the growth of bacteria in tissue cultures depends on a proper “Redox Potential” to secure adequate growth rates of the bacteria. Consistent healthy growth and replicating bacteria are vital to our health. 97% of the genetic material in our bodies is contained, not in our cells,

but in the cellular DNA of the bacteria within our GI tract. These genes are activated and directed by the information in our food, and by the presence of Redox molecules. They activate our metabolic forces that are then directed to enhance our prosperity, and direct cellular actions for aerobic actions. Pathogenic bacteria do have a purpose and we actually need them in times of stress. They break down foods into fatty acids that are then directed to fat storage by the liver. This helps us be capable of surviving in times of stress, but does not give us energy to work or be physically active.

In the past, it was believed that a good approach to supporting gut health was to take a probiotic, eat a plant-based diet, and avoid toxic choices like sodas, sweeteners, pasta, wheat, etc. Today we have the ability to supplement our bodies with Redox molecules and truly add an exciting new weapon to aid in supporting the microbiome. There are no bioavailable Redox molecules in the fresh organic foods we consume. They are unstable and denature instantly before providing any benefit to our cellular redox potential. Thankfully there are stabilized Redox molecules available today for consumer-use that can dramatically aid our efforts to support the balance of our microbiome. Redox molecular supplementation goes deeper than nutrition, it penetrates our cellular health at a molecular level.

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Pg. 131-142.*