



P.O. Box N Klamath Falls, OR 97601  
East Coast: 888.800.7070 West Coast: 888.233.1441 Email: sales@e3live.com

## **AFA and Active Hydrogen, a Symbiotic Relationship**

**Cory Stephanson, Ph.D.**

The metabolic nature of *Aphanizomenon flos-aquae* (AFA) and the resultant effect on the human body is quite profound. Naturally harvested AFA provides the essential and core components to provide pure energy for the body. This happens on many levels in the body's metabolic reactions. Particularly, in a process referred to as biophotolysis, energy is produced by the formation of hydrogen and oxygen naturally in your body. Through a process called phosphorylation, the hydrogen produced by AFA is transformed into the "building blocks" of energy, adenosine triphosphate (ATP) and nicotinamide adenine dinucleotide (NADH). These two substances are the essence of what allows reactions in our body to take place.

While all of the biophotolysis activity is occurring, simultaneous biological reactions are taking place that govern how much energy can be produced. Specifically, glycolysis, the Krebs-cycle, oxidative phosphorylation and the cellular respiratory chain are responsible for this governance. These reactions are quite complex, however the intrinsic common denominator between them is bioavailability of active hydrogen.

Active hydrogen is a hydrogen atom that has an additional electron in its outer shell that gives it a negative charge. This extra electron is able to react with other compounds in the body to control what are known as redox reactions. Reduction/ Oxidation reactions, or redox reactions, involve the regulation of a reaction through the electric field present. Compounds with a very low or negative redox have the energy needed to drive a reaction. Active hydrogen has an incredibly low redox reading. Active hydrogen works as an effective antioxidant in the body combating free radicals and restoring cellular health. Active hydrogen also increases protein production in the body and optimizes hydration.

Combined together, AFA and active hydrogen work perfectly complimenting each other. Their symbiotic relationship creates the perfect environment in your body to allow the natural reactions to happen more efficiently and effectively, optimizing the production of ATP, NADH, proteins and increasing hydration. Through the relationship of AFA and active hydrogen, you can experience increased hydration, reduced levels of oxidized cholesterol, more efficient carrying of oxygen in the blood, increased immune system response and more.