

## *Understanding Fast Oxidation*

About 15-20% of the mineral tests at Analytical Research Labs reveal a state of body chemistry called fast oxidation. Let us explore what this means.

### **WHAT IS A FAST OXIDIZER?**

We define fast oxidation on a hair test as a calcium/potassium ratio less than 4:1 and a sodium/magnesium ratio greater than 4.17:1. These ratios indicate a relatively low calcium and magnesium level in relation to sodium and potassium. For accuracy, the sample must not be washed at the lab.

The word fast oxidizer was coined by Dr. George Watson to denote a person who is burning his food more rapidly than normal. Dr. Eck expanded this concept, adding that fast oxidation indicates excessive thyroid and adrenal gland activity at the cellular level. Confusion occurs because blood tests may not reveal overactive thyroid or adrenal glands. However, at the cellular level, activity may still be excessive. For example, increased cell permeability can cause excessive amounts of thyroid hormones and glucose to enter the cells. In terms of the stress theory, fast oxidizers are in a continual alarm reaction, or fight-flight response to stress. This response causes a loss of calcium and magnesium and an increase in tissue sodium and potassium.

### **ARE ALL FAST OXIDIZERS THE SAME?**

No! Many fast oxidizers are in fact *temporary fast oxidizers*, also termed slow oxidizers under stress. This means the oxidation rate is rapid due to the presence of toxic metals or some other imbalance. As soon as this imbalance is corrected, the oxidation rate slows. Those who remain in fast oxidation, even with correction of body chemistry, are called *true fast oxidizers*. They are in the minority.

Temporary fast oxidizers often do not exhibit all the symptoms of fast oxidizers. Another tip-off that a person is a temporary fast oxidizer is if the calcium and magnesium levels are above the normal values of 40 mg% for calcium and 6 mg% for magnesium.

Fast oxidizers are also divided into those with a normal or elevated sodium/potassium (Na/K) ratio and those with a Na/K ratio less than 2.5:1. Those with a normal or elevated Na/K ratio often have more symptoms associated with fast oxidation. Those with a low Na/K ratio are called *tired fast oxidizers*. They have some degree of adrenal exhaustion and are often fatigued. They can develop sugar cravings, digestive difficulties or a weakened immune system. If the ratio is less than 1:1, they are prone to heart problems, malignancy, ulcers, diabetes and other serious conditions.

### **WHO ARE THE FAST OXIDIZERS?**

The largest single group of fast oxidizers are babies and young children. All of us start out as fast oxidizers. Many children are fast oxidizers with a low sodium/potassium ratio. This pattern is associated with hyperactivity, attention deficit disorder and recurrent infections. Toxic metal levels are also commonly elevated in these children.

Fast oxidizers are less common among adults and less common among women than men. Elderly people who are in good health may be fast oxidizers. Those who can maintain fast oxidation with a good sodium/potassium ratio can live long lives.

### **WHAT ARE FAST OXIDIZER CHARACTERISTICS?**

These vary depending on other ratios and levels. However, many fast oxidizers exhibit the following tendencies:

- Multiple bowel movements or diarrhea

- Attraction to meat and fat in the diet
- Excessive sweating
- Higher blood pressure
- Higher blood sugar
- Extroverted personality
- A shorter, stockier build and weight carried higher on the body
- Tendency to be warm
- Emotional volatility
- Tendency for anxiety and irritability

### **WHAT CAUSES THE FAST OXIDIZER SYMPTOMS?**

Enhanced adrenal and thyroid gland activity increases sweating, blood pressure and blood sugar levels. Peristaltic activity is also increased. The energy level is often high, giving rise to the extroverted personality. Calcium and magnesium serve as buffer elements. Low levels of these elements cause the tendency for emotional volatility as well as a tendency for irritability and anxiety.

Fast oxidizers often wish to overcome stress rather than face it calmly or shy away from it. Some maintain their fast oxidation by seeking stressful situations. They are often confrontational. One may be born with this fast oxidizer temperament, or one may learn it in childhood. The temperament influences body chemistry, but nutritional imbalances can also affect behavior and personality.

### **WHICH FOODS ARE BEST FOR FAST OXIDIZERS?**

Dr. Watson and Dr. Eck found that fast oxidizers need fats and oils in the diet. They burn

food rapidly. Fat has the necessary calories and is digested slowly, providing an even source of energy. For example, mother's milk is high in fat and calcium, two elements needed by fast oxidizing babies. Fast oxidizer adults are often '*meat and potatoes*' people. Cholesterol levels are usually low in healthy fast oxidizers. Those with a low sodium/potassium ratio need less fat and may develop high cholesterol due to stress.

Fast oxidizers who avoid fats and oils are prone to hypoglycemic attacks. This is a serious problem in children whose parents keep them away from fats but allow them sweets or fruit juice. The sweets are burned too fast, resulting in large fluctuations in blood sugar levels. This can lead to impaired concentration and even severe behavioral symptoms. Any and all stimulants such as coffee, sugar and others can affect fast oxidizers in a detrimental way.

### **WHICH SUPPLEMENTS ARE MOST IMPORTANT FOR FAST OXIDIZERS?**

Fast oxidizers may be deficient in many nutrients. Among the most important are calcium, magnesium and zinc. These have a sedative effect. Copper is also necessary to help retain calcium. Excessive vitamin C lowers the copper level and may be detrimental. Vitamin A is frequently helpful as a zinc synergist. Choline and inositol have a calming effect on many fast oxidizers.

If fast oxidizers will consume fats and oils and follow a supplement program, they often respond well to nutritional balancing programs.