

## **The Four Pillars of Health By Dr. Shawn Talbott**

For close to a decade, I've been writing/lecturing about a concept that I call the "Four Pillars of Health" – these four pillars are the most important aspects of biochemistry and metabolism that need to be balanced if you want to achieve and maintain ultimate health and well-being. Achieving balance in ANY of the four pillars will deliver substantial health benefits – but achieving balance in ALL four pillars enables you to hit the "sweet spot" and feel great at the same time you're improving your health.

### **The Four Pillars are:**

•**Oxidative Balance** = control of Free Radicals with broad-spectrum antioxidants

- **Manage with Xango products 365 the Immune builder, Precis products**

•**Inflammatory Balance** = control of Eicosanoids and Cytokines with healthy fats and natural anti-inflammatory nutrients

- **Manage with Xango Mangosteen juice**

•**Blood Sugar Balance** = control of AGEs (Advanced Glycation End-products) – caused by disruptions in insulin function and blood glucose)

- **Manage with Xango Favao products starting new in November 2011 through January 2012 with all available in February**

•**Metabolic, Stress, and Hormone Balance** = control of Cortisol/Testosterone which leads to rebalancing of neurotransmitters and metabolic enzyme activity

- **Manage with Xango Eleviv**

As a multipronged approach to simultaneously addressing multiple aspects of metabolism, the Four Pillars concept can be thought of as a roadmap to Wellness as well as a sort of "Unified Theory of Aging" because imbalance in any of the pillars leads to reduced wellness and accelerated aging – both of which you obviously want to avoid.

For example, some popular anti-aging programs focus on controlling JUST Oxidation (such as antioxidant supplements). Although this is a great place to start, oxidation is only one of the primary causes of Metabolic Imbalance and premature aging; therefore, oxidation-control programs are automatically limited in their overall effects and benefits. Likewise there are anti-aging programs that focus on controlling "just" inflammation (such as with omega-3 fatty acids), or that focus "only" on controlling glycation (by eating foods with a low glycemic index). The result? Limited approaches with limited focus lead to limited benefits for you.

I'm not against all such approaches. I think many of them offer some hope and some help. But why give yourself less than the whole solution? Why would you choose an approach that was more complicated to follow and more limited in scope, when the Four Pillars approach enables you to control all four metabolic aspects of wellness and aging at the same time?

Scientists and doctors both agree that excessive inflammation (which is caused by imbalances between inflammatory and anti-inflammatory eicosanoids and cytokines) can lead to accelerated tissue damage and breakdown, so it makes a lot of sense to control inflammation to promote overall health. But if we look deeper to find the causes of inflammation, we quickly see other factors that we can control. Since oxidation (which is caused by free radicals) leads to inflammation at the cellular level, why not control oxidation? Great idea—but why not look even further “up” the metabolic chain of events to see if we can control or modulate the causes of oxidation.

When we do this (looking “up” the metabolic cascade), we see that glycation (cellular damage caused by sugars) can lead to oxidation (which can, in turn, lead to inflammation)—so we have another factor that we can address. Should we stop there? Of course not, because when we look even higher up the metabolic stream, we see that stress (and the cortisol/testosterone imbalance that stress causes) can lead to glycation, which can lead to oxidation, which in turn leads to inflammation. Unfortunately, we don't currently know enough from scientific or medical research to go any further “upstream” with regard to the metabolic control of wellness and cellular aging. Stress and Metabolic Hormone Balance are as far upstream as we can go at this time—but that's still pretty good.

This gives us four aspects of metabolism that we can address to control wellness and aging and ultimately our underlying Vigor. Perhaps the best news of all is that each of these four aspects of metabolism is easily controlled by factors related to lifestyle: diet, exercise, stress management, and the use of natural products, such as dietary supplements.

### **Where to start?**

As mentioned above, restoring balance to ANY of the individual Four Pillars will yield significant health benefits – but the ultimate wellness “sweet spot” is achieved by simultaneously balancing all four pillars – here's how...

### **Oxidative Balance**

Free radicals are highly reactive forms of oxygen that can damage cell membranes and other cellular structures throughout every tissue and organ in the body. Free radicals come at us from internal sources, such as breathing and metabolizing food into energy, as well as from external sources, such as sunlight and air pollution. Luckily, we can control free-radical exposure and the cellular damage (termed “oxidation”) that it causes through a balanced dietary intake of antioxidant nutrients from the five main categories of antioxidants: such as vitamins C and E, thiols, carotenoids, and flavonoids.

### **Inflammatory Balance**

The function of certain hormone-like molecules in the body (sometimes referred to as eicosanoids and cytokines) is to regulate inflammation. Inflammation is a normal metabolic process with numerous life-sustaining benefits. For example, without a robust inflammatory process, we'd quickly succumb to bacterial and viral infections. However, when the inflammatory response becomes overactive (as it can with allergies and with some forms of heart disease) or misdirected (such as when it leads to more tissue damage instead of less), we need to rebalance the inflammatory cascade back toward its natural anti-inflammatory mode. It is important to not only control inflammation directly (by modulating eicosanoids/cytokines), but doing so also helps to balance free radicals, AGEs, and cortisol—three aspects of metabolism that can lead to hyper-inflammation when left unchecked.

### **Blood Sugar Balance**

The abbreviation for Advanced Glycation End-Products (“AGEs”) pretty much says it all. Advanced glycation makes your tissues function poorly, makes you feel sluggish, and even look older. Glycation is the process by which sugar molecules become attached to protein molecules and inhibit their normal functioning. Too much sugar—or, more precisely, poor control of blood sugar—can lead rapidly to an accumulation of glycated proteins, with the end result being wide range of health problems including fatigue, depression, mental foggy, and skin problems such as increased wrinkles, swelling, redness, and acne. As with the control of free radicals described above, nutritional recommendations designed to control blood sugar by modulating the function and activity of insulin (the hormone responsible for regulating blood sugar) can help to restore blood sugar balance and reduced AGEs.

### **Metabolic Hormone Balance**

We all have lots of different hormones in our bodies – from the “reproductive” hormones estrogen and progesterone (sometimes called “menopausal hormones, depending on what stage of life you happen to be in), to the “metabolic hormones” such as cortisol, testosterone, insulin, and thyroid that help to regulate energy production and storage in the body. Cortisol, is the body’s primary stress hormone. So whenever we’re under chronic stress, we’re exposed to excessive levels of cortisol. Cortisol production in the body is a normal part of human life. It only becomes a problem when we’re exposed to too much of it on a chronic basis—a scenario that is simply all too common in the hurry-hurry, always “on” world of the twenty-first century. Cortisol overexposure leads to a reduction in Testosterone levels and to interference in the normal functioning of insulin and thyroid hormones. The combined effect of this imbalance between vital metabolic hormones leads invariably to increases in inflammation, oxidation, and glycation (in many ways, chronic stress is the proverbial “monkey wrench” that upsets proper function across your entire metabolism). Many scientists, including myself as an exercise physiologist and nutritional biochemist, consider the ratio between cortisol and testosterone (CTR) is the “master controller” among the four metabolic pillars, so while the biggest bang for your buck in terms of promoting overall health will come from controlling CTR (and by default, controlling the other aspects of health and aging), it makes sense to simultaneously control the other aspects in order to create a truly comprehensive approach.

### **The Four Pillars in Action**

You've heard the saying "You are what you eat." But as a Nutritional Biochemist, I like people to understand that what you eat also influences how you feel, how you perform, and even how you look. Based on several recent scientific studies and many decades of population studies, we now know quite clearly that nutritional factors can influence overall health in a variety of ways. For example, your choice of diet can promote or prevent many of the metabolic factors associated with fatigue, depression, mental function, cancer, heart disease, and even the very process of aging itself.

**Here are some of the easiest ways to control these metabolic marauders:**

1. **Eat more of the right kinds of fats** (and less of the bad kind) and supplement your diet with anti-inflammatory nutrients. One of my favorite anti-inflammatory products is [Xango Juice](#) because of the family of xanthenes found in mangosteen fruit/rind and the solid science showing significant reductions in inflammatory markers such as C-reactive protein (CRP). Read more about "good fats" [HERE](#).
2. **Eat fewer refined carbohydrates** (and more whole-grain carbs). Read more about "good carbs" [HERE](#).
3. **Eat more antioxidants** (found in brightly colored fruits/veggies) and use well-balanced dietary supplements. Read more about dietary antioxidants [HERE](#).
4. **Reduce stress** or at least maintain balance between metabolic hormones such as cortisol/testosterone. Since stress "reduction" is so unrealistic for many of us, one of my favorite "balancing" approaches is the [Eleviv](#) herbal formula for improving Vigor, Energy, and Mood. A dietary supplement such as Eleviv is not going to "remove" stress from your life, but it can at least help many people to get back into balance and to reap the wellness and health benefits of a balanced metabolism. Read more about maintaining Metabolic Balance [HERE](#).

**A Concluding Word**

As you can see, just as we "are what we eat" – in general terms we also tend to feel, perform, and look like what we eat! And who wants to feel, perform, or look like junk? The solution is to face the nutritional facts and eat your way to health by naturally controlling the Four Pillars of Health. Focus on eating healthy carbs and fats, controlling stress and cortisol, and including enough antioxidants and anti-inflammatory nutrients in your daily diet. In this way, you can truly achieve optimal health and wellness.

Thanks for reading!

Shawn

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