

## **Immune Health: Your Firm Foundation**

Hilbert and Sandy built a beautiful home in Apopka, Florida. The foundation was not built on solid ground. The poor soil and shifting sand resulted in drops in the foundation throughout the house. Over time the house developed massive cracks in the brick work; the basement floor buckled until it resembled the aftermath of an earthquake; interior steel wall beams twisted and compressed, causing walls to bulge and pipes to break. Their lovely house was eventually ruined because they did not build it on a firm foundation.

**Immune Foundations.** Your immune system is your foundation for good health. Its protective network wards off harmful bacteria and viruses and dismantles harmful toxins. It also acts as a surveillance system against abnormal cells. Its defenses include physical barriers such as the skin; inflammatory responses to injured areas; and specific immune responses to pathogens or infection.

**Immune "Cross-Talk".** The immune system and stress system (brain and nervous system) are constantly engaged in chemical "cross-talk" that regulates immune, hormonal, and stress system activity. Living organisms survive by maintaining homeostasis, or balance. If homeostasis is constantly "challenged" by disturbing forces, or "stressors," temporary physiological changes become chronic, promoting widespread immune dysfunction, disease, and damage. Constant mental stress, poor diet, lack of exercise or sleep, and smoking are just a few ways this dysregulation can develop.

Like a crumbling house on a poor foundation, constant "insults" to the immune or stress system work over time to deteriorate general health, mental health, increase the risk for certain diseases, and even shorten life. Positive lifestyle choices boost, build, and balance immune and stress system health. They work over time to bring the two systems into balance with each other to promote healing and recovery.

**Boost with Antioxidants.** Antioxidants are powerful immune-boosters. They remove harmful oxidants or free radicals from the blood stream. Oxidants are toxic by-products that occur as a result of normal metabolism, exposure to smoke, or other environmental toxins. Free radicals can damage DNA and weaken the body's immune

system. Antioxidants reduce free radical damage and strengthen the immune system. You can increase them and improve their effectiveness by:

**1. Eating more fresh fruits and vegetables.** Citrus, cherries, and berries are especially high in antioxidant nutrients. Green leafy vegetables such as kale and broccoli are rich in vitamins A, C, and E. Consuming a wide variety of green and yellow vegetables increases blood levels of carotenoids which are linked with lower levels of stress-related symptoms such as insomnia and irritation.<sup>1</sup>

Vitamin D, the sunshine vitamin, is also essential to healthy immune function; if in doubt about your levels, your doctor can order a simple blood test to check your levels.

**2. Getting more dietary fiber.** Plant foods deliver immune-boosting nutrients such as flavonoids<sup>2</sup> plus other disease-fighting compounds that help regulate blood sugar, balance insulin, and lower inflammation. Plant fiber helps control appetite and manage weight. Excess body fat triggers unwanted inflammation, one reason why obesity increases the risk for many chronic ailments. Drink plenty of water instead of calorie-rich sweet drinks to improve circulation and cut immune-zapping sugar calories.

**3.** Eliminating red meat, high-fat dairy and fried foods. A diet high in animal fat, refined grains, sugar, and fried food increases free radical damage that is linked to diabetes, heart disease, dementia, and certain cancers. Substitute beans, whole grains, vegetarian meat substitutes, multi-grain pastas and potatoes for meat entrees. Use olive oil and lemon as a salad dressing, and focus on omega-3 fats by including more walnuts and flax seed in your diet.

**Build** with Exercise. Exercise not only protects the immune system but also strengthens it. A regular exercise program of brisk walking can bolster many defenses of the immune system, including the antibody response and the natural killer (T cell) response.<sup>3</sup>

Twenty to thirty minutes of brisk walking five days a week is a great way to maintain a healthy immune response. Adding aerobic exercise helps relieve mild-to-moderate depression and anxiety. It also reduces feelings of loneliness and anger and increases feelings of control. The mind and body work together. These positive mental states have the additional benefit of boosting immune health.

**Balance with Stress Management.** Chronic stress is a hit to immune health. It can cause depression, anxiety, forgetfulness, irritability, and even panic. It also causes physical symptoms such as a racing heart, fatigue, sweating, muscle aches and pains, and sleep disorders. What are some positive ways to handle stress? Try taking a walk, talking to a friend, relaxation exercises, helping someone else, prayer, identify what is in your control and trust the rest to God. Take time to identify, internalize, and act upon the most important priorities in your life. These are just a few ways to tame stress and

protect the immune system. The old adage "pare down, or you'll wear down" is worth taking seriously.

The foundation of immune health is a positive lifestyle. For more information, see the book: *Diet and Stress: Lifestyle Links* at <u>www.lifestylematters.com</u>.

## The Living Word

It's possible to strengthen your immune system for a 'firmer foundation' for your health. Even more important is to have a strong spiritual foundation. There's a story in the Bible about a wise man who builds a strong foundation for his house. When the rain, floods, and winds of trouble came and "beat upon that house," it remained standing because it was founded on a Rock.<sup>4</sup> This solid rock represents God, the Master Builder. God wants you to have a strong physical, mental, and spiritual foundation in Him.<sup>5</sup> He created you in a unique and wonderful way."<sup>6</sup> He will "complete the good work" in you as you learn from Him, depend on Him, and build your life in Him.<sup>7</sup>

Visit us at *LifestyleMatters.com* or call 1-866-624-5433 for your resources to build a better brain, body, and lifestyle.

<sup>&</sup>lt;sup>1</sup> NY Acad Sci1993;691:281-3.

<sup>&</sup>lt;sup>2</sup> Adv Wxp Med Biol 1998;439:175-82.

<sup>&</sup>lt;sup>3</sup> Cleveland Clinic Newsletter, Diet, Exercise, Stress, and the Immune System. 2009.

<sup>&</sup>lt;sup>4</sup> Matt. 7:24-5.

<sup>&</sup>lt;sup>5</sup> Prov. 22:20.

<sup>&</sup>lt;sup>6</sup> Psalm 139.

<sup>&</sup>lt;sup>7</sup> Phil. 1:6.