

## **The 411 on the Immune System and Lifeway Kefir**

### **What is the immune system?**

Everyday, you shake hands with strangers, open and close doors, steer grocery carts, ride in airplanes, pick up your little one from school. And every time you engage in these seemingly benign activities, you expose yourself to an array of viruses. Luckily, healthy individuals are armed with a complex, highly developed group of organs and cells that defend the body against these infections and other diseases. It's called your immune system and its mission is single-minded: To seek and kill invaders. Columbia University's Go Ask Alice! describes it as "an army of millions of microscopic soldiers patrolling your body, working to prevent illness by fighting any invading germs." These so-called "soldiers" are actually white blood cells, and you need to feed them well so they can protect you, keeping you healthy and strong.

### **What can weaken it?**

A number of factors can influence and compromise our immune system – anything from chronic stress to an autoimmune disorder (Multiple Sclerosis, diabetes, and Crohn's disease are a few examples – in such diseases, the immune system becomes unable to distinguish between foreign invaders and the body's own cells). Ironically, antibiotics can compromise the immune system, too. For example, these drugs target "bad" bacteria but may also kill the "good" bacteria in the large intestine or vagina, leading to diarrhea or yeast infections, respectively.

### **What can strengthen it?**

A healthy, well-balanced diet can do wonders for strengthening the immune system. The following foods and nutrients are critical:

- Vitamin C (found in citrus fruit, broccoli)
- Vitamin E (found in nuts, vegetable oils, and whole grains)
- Garlic (also a natural antibiotic)
- Zinc (found in beef, turkey, beans, oysters, crab)
- Bioflavonoids (found in fruits and vegetables)
- Selenium (found in chicken, whole grains, tuna, red snapper, lobster, shrimp, garlic, egg yolks, sunflower seeds, brown rice)
- Carotenoids (found in carrots, yams)
- Omega-3 fatty acids (found in nuts, salmon, tuna, mackerel, flaxseed oil)

In addition, certain lifestyle changes can boost your immune system, including:

- Washing your hands to reduce the number of organisms that enter your body.
- Getting at least eight hours of sleep every day — deep sleep stimulates and energizes the immune system.
- Maintaining a healthy weight — obesity can weaken the immune system.
- Exercising at least 30 minutes most days of the week.
- Eating less sugar — 100 grams of sugar, the amount in one 12-ounce can of regular soda, can reduce the ability of white blood cells to kill germs by 40 percent for up to 5 hours!
- Not smoking — smoking leads to lung and other cancers, and also weakens the immune system.

- Reducing and managing stress, such as effective time management — long periods of feeling stressed weakens the immune response.

### How can kefir help?

For individuals being treated with medications such as antibiotics, kefir can help by replenishing protective intestinal flora which can be destroyed during treatment. As previously mentioned, antibiotics go after "bad" bacteria in the body but may also kill the "good" bacteria in the large intestine in the process. The result: stomach discomfort and diarrhea. According to a November 2008 study published in *American Family Physician*, up to one in five individuals on antibiotics stop taking their medicine before completing the full course of therapy due to diarrhea. But, researchers from Albert Einstein College of Medicine of Yeshiva University said, physicians could help patients avoid this problem by prescribing probiotics. "With the level of evidence that probiotics work and the large safety margins for them, we see no good reason not to prescribe probiotics when prescribing antibiotics," Dr. Benjamin Kligler, a co-author of the study and associate professor of clinical family and social medicine at Einstein, said, as reported on ScienceDaily.com. "The only drawback is that probiotics are not covered by health insurance." A single-month supply of supplemental probiotics can cost between \$8 and \$22. (A 32-oz. bottle of kefir costs about \$3.00.)

Some other ways probiotics can help bolster your immune system:

- In a study conducted by scientists at the Institute of Food Research and published in *Clinical & Experimental Allergy* last year, volunteers with a history of seasonal hay fever (an allergic reaction to pollen or fungal spores) drank a daily milk drink with or without *Lactobacillus casei* over the course of five months. What they found: Those individuals who drank the beverage *with Lactobacillus casei* experienced significant reductions in the production of molecules associated with allergy
- A recent study published in the *British Journal of Sports Medicine* revealed that professional long distance runners who consumed the probiotic *Lactobacillus* (in the form of a dietary supplement) had shorter and less severe bouts of respiratory illness than those who took a placebo.

### Sources:

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