

The Immune-Boosting Diet

9 foods to help you stay well all season long

BY WENDY MCMILLAN





Everyone's always saying what an amazingly efficient immune system we have, but if that's so true, why do we catch colds in the winter or suffer from allergies in the spring? The answer lies in ourselves. We don't keep our immune system in fighting trim. Instead, we do all sorts

of things that make it weak in the knees. We smoke, drink alcohol, burn ourselves out with stress, and eat diets filled with immune-system saboteurs.

Nutritionists agree that what we eat plays a big role in fighting off germs. "Our immune system is like a fine-



RECIPES

-  Asian Chicken Noodle Soup p. 44
-  Sweet Potato Coffee Cake p. 46
-  Blueberry Compote p. 46
-  Spinach and Crab No-Crust Quiche p. 46

healing foods

ly honed, intricately choreographed dance,” says Beth Reardon, RD, an integrative nutritionist at Duke Integrative Medicine, North Carolina. Every cell has a specific role, she says, and requires key nutrients to survive and work properly. That’s why the standard American diet—desperately lacking in important nutrients—puts the immune system at risk. The best way to maintain a healthy body? You got it: Eat well. These nine power foods can help you beat the best of the bugs.

Garlic

Known as one of nature’s more potent remedies, garlic has “antiviral, antifungal, and antibacterial properties,” says Christine Gerbstadt, MD, RD, a physician and nutritionist in Sarasota, Florida. And for those who think medicine should smell bad, its effectiveness may be linked to allicin, the sulfurous chemical compound responsible for crushed garlic’s unmistakable, pungent odor. Gerbstadt says studies show that allicin not only inhibits the growth of bacteria, it can even kill some germs on contact. In

one study at Boston City Hospital, garlic successfully killed 14 strains of bacteria taken from the noses and throats of children with ear infections. Now for the tricky part: To experience the full benefits of garlic in combating colds and flu, you’d have to eat an entire bulb—raw—every day. However, softening garlic by roasting or sautéing will subdue the strong flavor and lend a more palatable sweetness while still retaining most of its immune-boosting potency. What’s more, eating any amount of garlic will provide some benefit, says Gerbstadt.

Shiitake mushrooms

Long revered in China for both culinary and medicinal reasons, shiitake mushrooms add more than their rich flavor to a dish. Research shows that shiitake help produce a type of white blood cell called natural killer cells, which release a type of protein into the infected cells that causes them to self-destruct. Research also attributes the powerful effect of shiitake mushrooms to their unique complex

In traditional Chinese medicine, warm stews help ward off colds.



Other Immune Boosters to Help You Stay Healthy

Tips from New York City–based naturopath Nicole Egenberger, ND:

- ✱ **EAT WARM, SOOTHING MEALS.** According to traditional Chinese medicine, these help balance the body when the temperature drops.
- ✱ **END YOUR SHOWER WITH COOL WATER.** This mimics hydrotherapy by triggering the body’s circulatory reflex, which helps boost immunity.
- ✱ **HAVE MORE FUN.** Laughter and pleasant feelings have been associated with an increase in the effectiveness of your body’s infection-fighting natural killer cells.
- ✱ **STRESS LESS.** Sneak in some solo time every day—whether you hit the gym or meditate. Stress has been shown to decrease immune function.

healing foods

sugars—called lentinan. Structurally similar to bacteria, lentinan “tricks” your body into feeling threatened, which kicks the immune system into a higher gear.

Tea

This comforting beverage does an admirable job of soothing the throat and relaxing the senses, even as it helps build up your resistance behind the scenes. Green tea, one of the least processed varieties, contains the highest amount of nutrients, but black teas are also rich in health benefits. In fact, powerful compounds known as polyphenols comprise nearly 30 percent of their dry weight. Why is that so important? Well, thanks to the air we breathe and much of the food we eat, our body is constantly bombarded with free radicals, which steal electrons from healthy cells and, in the process, damage their DNA. The selfless polyphenols offer up their own electrons to these unstable atoms, rendering them harmless and eliminating the threat, explains Kerry Neville, RD, a dietitian in Kirkland, Washington.

Oranges

This breakfast staple offers much more than a sunny start to the day: Just one orange provides more than 100 percent of the daily value for vitamin C, a powerful antioxidant that helps strengthen the immune system. While there’s conflicting evidence about vitamin C’s cold-prevention power, most nutritionists and doctors agree that it certainly can’t hurt. One way vitamin C helps boost immunity is by stimulating the growth of antibodies that fight off infections, says Lona Sandon, RD, associate professor at the University of Texas Southwestern. Vitamin C is part of the chemical reactions that allow the body to synthesize proteins needed for antibodies. The more vitamin C that’s available to the body, the faster antibodies can be made. Studies show vitamin C also acts as an antihistamine, lowering blood levels of defensive chemicals (histamines) released by the immune system that actually exacerbate stuffiness and congestion. Finally, vitamin

C helps produce prostaglandin E1 in the body, an anti-inflammatory hormone. While inflammation is a natural bodily response signifying something is physically not right, Sandon says, chronic, low-grade inflammation—which many of us suffer from—can actually cause the immune system to constantly fight the inflammation. And if the immune system is busy doing that, there’s a good chance it’ll miss the beginnings of another illness.

Blueberries

Delectable proof that big things can come in small packages, blueberries get a lot of votes as the ultimate immunity food. A powerhouse of antioxidant phytonutrients—health-promoting components found in plants—blueberries are also a good source of both vitamins C and E. “When vitamins C and E work together, they produce their most potent antioxidant effects,” says Reardon. While vitamin C, the body’s No. 1 water-soluble antioxidant, patrols the body’s waters, fat-soluble vitamin E works to protect fatty tissues from free radicals.

Sweet potatoes

Rich in carotene, the chemical that gives certain vegetables their orange color, sweet potatoes are a key player in the fight against infection. The reason? The liver converts carotene to vitamin A, and according to Mary Ellen Camire, PhD, a professor in the Department of Food Science and Nutrition at the University of Maine, “Vitamin A fortifies your first defender—your skin—by making it less permeable to germs.” Sweet potatoes also contain about 27 percent of the recommended daily value of vitamin C, and recent research has shown that the unique proteins in sweet potatoes may have antioxidant effects.

Lean beef

Beef gets a bad rap sometimes, primarily because most Americans eat too much of it. But the rich zinc content of lean, organic beef can bolster the immune system—just one 4-ounce serving provides approximately 42 percent of

Continued on page 47

Recipes

Asian Chicken Noodle Soup

SERVES 4 TO 6

2 teaspoons dark sesame oil
2 teaspoons peeled, diced ginger
2 cloves garlic, minced
6 cups low-sodium chicken broth
2 tablespoons soy sauce
2 tablespoons rice vinegar
1 teaspoon brown sugar
1 cup shiitake mushrooms, quartered,
stems removed
2 skinless, boneless chicken breast halves,
cooked and shredded
6 ounces dried Chinese egg noodles
5 ounces spinach leaves, washed and torn
Salt and pepper to taste, optional

1. In a large pot, heat oil. Add ginger and garlic, and stir-fry for 1 minute.
2. Add broth, soy sauce, vinegar, sugar, mushrooms, and chicken. Bring to boil, then reduce heat, and simmer for 5 minutes.
3. Add noodles, and cook 4 minutes, or until noodles are tender.
4. Add spinach, and heat 2 minutes more.

NUTRITION INFO PER SERVING: 308.9 calories;
5.2 g fat; 0.9 g saturated fat; 74.8 mg cholesterol;
25.6 g protein; 40.2 g carbohydrates; 2.8 g fiber;
1,443.6 mg sodium



healing foods

Sweet Potato Coffee Cake

SERVES 12 TO 15

CAKE

- 1 cup whole wheat flour; 1 cup flour
- 1 1/2 teaspoons baking powder
- 1 teaspoon cinnamon; 1/2 teaspoon nutmeg
- 1 teaspoon grated orange zest
- 1/2 cup brown sugar; 1/2 cup maple syrup
- 1 teaspoon vanilla
- 1 cup cooked, mashed orange sweet potatoes
- 1 egg; 1 egg white
- 1/2 cup nonfat sour cream
- 3/4 cup orange juice
- 2 tablespoons olive oil
- 1 cup raisins; 1/2 cup dried cranberries

GLAZE

- 1 1/2 cups powdered sugar
- 1/4 cup orange juice

1. Mix flours, baking powder, cinnamon, nutmeg, and orange zest. Set aside.
2. Mix sugar, maple syrup, vanilla, sweet potatoes, egg, egg white, sour cream, orange juice, and olive oil. Blend well.
3. Combine flour and sweet potato mixtures. Fold in raisins and cranberries, and pour into a baking pan coated with cooking spray. Bake at 350 degrees, one hour for an 11- by 7-inch pan, and 45 minutes for a 9- by 13-inch pan.
4. While cake is baking, prepare glaze in a small bowl. Spoon over cake when cooled.

NUTRITION INFO PER SERVING (BASED ON 15 SERVINGS): 240.2 calories; 2.5 g fat; 0.4 g saturated fat; 12.6 mg cholesterol; 3.5 g protein; 53 g carbohydrates; 1.9 g fiber; 65.4 mg sodium

Blueberry Compote

SERVES 4

- 2 1/2 cups fresh or frozen blueberries
- 1 tablespoon cornstarch
- 1/2 cup water
- 1/2 cup honey

1. In a saucepan, combine all ingredients.
2. Bring to boil, then reduce heat to medium-low, stirring regularly, until thickened.
3. Serve warm as a delicious topping for ice cream, yogurt, oatmeal, whole-wheat pancakes, or waffles.

NUTRITION INFO PER SERVING: 185.7 calories; 0.3 g fat; 0 g saturated fat; 0 mg cholesterol; 0.7 g protein; 49.2 g carbohydrates; 2.5 g fiber; 7.9 mg sodium



Spinach and Crab No-Crust Quiche

SERVES 6

- 2 large eggs
- 2 egg whites
- 1 can (7 to 8 ounces) crab meat, drained
- 1/2 cup skim milk
- 1/2 cup flour
- 10 ounces frozen chopped spinach, thawed, and drained
- 3/4 cup reduced-fat, grated Swiss cheese
- 1/4 teaspoon pepper
- 1/4 cup reduced-fat, shredded cheddar cheese

1. Preheat oven to 350 degrees.
2. In a bowl, whisk eggs and egg whites. Stir in all remaining ingredients, except for cheddar cheese.
3. Pour egg mixture into prepared pie plate or quiche dish coated with cooking spray. Sprinkle top evenly with cheddar cheese.
4. Bake at 350 degrees for 45 minutes, or until set.

NUTRITION INFO PER SERVING: 152.9 calories; 5.3 g fat; 2.8 g saturated fat; 94.3 mg cholesterol; 13.9 g protein; 12 g carbohydrates; 1.4 g fiber; 281 mg sodium

the recommended daily value. Zinc figures prominently in the production of white blood cells, says Camire. Too little zinc leads to a drop in them, which increases your risk of infection. Unlike other types of cells, most immune cells live only a short time and cannot divide or reproduce on their own. Because zinc spurs rapid cell division, it helps replace and repair these important members of the immune team. Looking for a vegetarian source of zinc? A quarter cup of pumpkinseeds packs approximately 17 percent of the RDA.

Spinach

Loaded with nutrients and essential vitamins, spinach also contains folate, important when it comes to the production of new cells. Neville explains that in addition to being short-lived, immune cells get produced in fairly low numbers. When the body is threatened, one division of the immune system jump-starts production of cells targeted for the specific invaders. And

the immune system depends on folate to increase the supply of cells. But that's not all: Researchers have identified at least 13 different compounds in spinach that act as antioxidants. One of these is quercetin, a phytochemical that has been shown to help prevent many viruses from multiplying. Neville recommends adults include approximately three cups of spinach in their diet each week.

Yogurt

The "good" bacteria in yogurt—known as probiotics—make an essential contribution to a healthy immune system. The stomach and intestinal tract contain more than 500 different varieties of bacteria, and probiotics help maintain a balance between the good and bad bacteria by crowding out pathogens and preventing them from attaching to gut walls. Probiotics also feed on nondigestible fibers called prebiotics, producing short-chain fatty acids that decrease acidity in the colon. The decreased acidity makes

the colon uninhabitable for most infection-causing pathogens, which, in turn, allows for increased mineral absorption. Research suggests that probiotics can also enhance the body's immune response by increasing levels of key players, says Reardon, including natural killer cells. Studies from the University of California have shown that yogurt specifically helps the body build a protein called gamma interferon, which aids the body in developing white blood cells. ■

WENDY MCMILLAN is a freelance writer in Longmont, Colorado.

>> Want more recipes?

Visit us online at naturalsolutionsmag.com/go/webexclusives for more easy, immune-boosting dishes, including a beef stroganoff, garlic baked salmon, and green tea–chocolate pudding.