Healthy Lifestyle, Healthy Body

Get Healthy!
To have a healthy, strong immune system, we need to focus on getting healthy overall. Here are a few lifestyle factors that can impact your immune health.

- **Exercise:** Participate in regular physical activity. Regular activity can benefit your entire body by helping you maintain a healthy body weight. Exercise also can keep you in good health, which allows your immune system to work properly. Aim to get at least 30 minutes of activity a day three to five times per week.

- **Manage stress:** Certain types of stress can weaken our immune system and make us more susceptible to infection. Get enough sleep, manage your blood pressure and focus on leading a healthy lifestyle. Sleep deprivation can depress the immune system’s disease-fighting power by reducing the production of T cells.

- **Limit alcohol:** Alcohol is one substance that can suppress our immune system. If you do drink, drink in moderation. Moderation is defined as one drink a day for women and two drinks a day for men.

- **Take steps to avoid infection:** Wash your hands frequently. Practice food safety when preparing food at home to reduce the spread of bacteria. Wash fruits and vegetables before eating. Thaw food in the refrigerator, in cold water or in the microwave. Cook meat and seafood thoroughly, and keep raw and cooked foods separate.

**Foods to Limit**
Not all foods are good for the immune system. Fatty foods and alcohol can suppress the immune system and make us more susceptible to infection. Also, foods eaten in excess can lead to obesity, which can cause immune system function to be reduced.

**More Information:**
Academy of Nutrition and Dietetics, www.eatright.org
National Institute of Allergy and Infectious Diseases, www.niaid.nih.gov

**Glossary**

- **Nutrient:** anything that nourishes the body; we get nutrients from the foods we eat
- **Antibodies:** a protein made by the body that produces an immune response when it senses an invader
- **Antioxidant:** a substance that inhibits oxidation or reactions promoted by oxygen

**More Information**
Centers for Disease Control and Prevention, www.cdc.gov

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This project is supported by the Rural Health & Safety Education Competitive Grant Program of the USDA National Institute of Food and Agriculture (NIFA), grant number 2013-46100-21467.

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Reviewed November 2019
Our immune system functions throughout our body. It is composed of specialized cells that prevent or limit infection in our bodies. Immune cells recognize substances that enter our bodies and attempt to remove them if the substance appears to be harmful to us.

Consuming a healthful diet is one of the best strategies for having a healthy immune system. Research has shown some nutrients, including protein, and certain vitamins and minerals, have specific roles in immune health. If we lack any of these nutrients, our ability to fight infection can decrease.

Protein

Protein is found in every cell, tissue and organ in our bodies. When we do not get enough protein, our bodies may produce less of certain immune cells and increase our susceptibility to infections of the respiratory, gastrointestinal and urinary tract. Protein foods include chicken, beef, pork, fish, eggs, peanut butter, milk, seeds, beans and nuts.

TIP: Include lean protein such as chicken, beans and eggs at each meal to get enough protein for the day. Adult women age 19 and older should get about 46 grams (g) of protein per day and adult men should get about 56 g per day. Check out the table below to see how many grams of protein are found in certain foods.

**Protein Content of Selected Foods**

<table>
<thead>
<tr>
<th>Protein Source</th>
<th>Grams</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 g</td>
<td>3 ounces lean beef</td>
</tr>
<tr>
<td>22 g</td>
<td>3 ounces salmon, tuna or halibut</td>
</tr>
<tr>
<td>16 g</td>
<td>3 ounces lean chicken</td>
</tr>
<tr>
<td>15 g</td>
<td>1 cup black beans</td>
</tr>
<tr>
<td>14 g</td>
<td>1 cup plain non-fat yogurt</td>
</tr>
<tr>
<td>9 g</td>
<td>1 ounce nonfat mozzarella cheese</td>
</tr>
<tr>
<td>8 g</td>
<td>1 cup milk</td>
</tr>
<tr>
<td>6 g</td>
<td>1 ounce almonds (about 23)</td>
</tr>
<tr>
<td>6 g</td>
<td>1 large egg</td>
</tr>
</tbody>
</table>

mg = milligrams; IU = International Units; g = grams; mcg = micrograms

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**Antioxidants**

What are some good sources of antioxidant nutrients? Which ones do you consume regularly?

<table>
<thead>
<tr>
<th>Antioxidants</th>
<th>Food Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin A</td>
<td>Carrots, apricots, sweet potatoes, kale, spinach, red bell peppers and eggs</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>Oranges, grapefruit, tangerines, red bell pepper, papaya, strawberries, kiwi, tomato juice and foods fortified with vitamin C, such as some cereals</td>
</tr>
<tr>
<td>Vitamin E</td>
<td>Sunflower seeds, almonds, and oils such as sunflower and safflower oil</td>
</tr>
<tr>
<td>Selenium</td>
<td>Selenium is a mineral found in the soil. We get selenium from the animals and plants we eat.</td>
</tr>
</tbody>
</table>

**TEST YOUR KNOWLEDGE**

Which food is high in vitamin C?

A. Beets  
B. Red bell pepper  
C. Eggs  
D. Oatmeal

Answer: B. Red bell pepper

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**Vitamin D**

When our body is low in vitamin D, we are less able to fight off infection and disease. The best way to get vitamin D is to absorb it from the sun. Unfortunately, for the states in the northern part of the U.S., the sun is only strong enough for our bodies to absorb vitamin D from March to October.

**TEST YOUR KNOWLEDGE**

How much vitamin D does an adult between the ages of 19 and 70 need each day?

A. 2,000 IU  
B. 800 IU  
C. 600 IU

Answer: C. 600 IU

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**Other Nutrients and Sources**

What are some other immune system-friendly nutrients and their food sources?

<table>
<thead>
<tr>
<th>Vitamins</th>
<th>Food Sources</th>
<th>Recommended Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin D</td>
<td>Milk, oily fish such as tuna and salmon, mushrooms, breads, yogurt and orange juice</td>
<td>600 IU/day adults more than 19 years old</td>
</tr>
<tr>
<td>B6, folate and vitamin B12</td>
<td>Tuna, turkey, beef, chicken, salmon, sweet potatoes, sunflower seeds and bananas</td>
<td>1.3 to 1.7 mg/day adults more than 19 years old</td>
</tr>
<tr>
<td>Folate</td>
<td>Spinach, broccoli, beans, lentils, asparagus, avocado, orange juice and fortified cereals</td>
<td>400 mcg/day adults more than 19 years old</td>
</tr>
<tr>
<td>B12</td>
<td>Sardines, salmon, tuna, cod, lamb, scallops, shrimp and beef</td>
<td>2.4 mcg/day adults more than 19 years old</td>
</tr>
</tbody>
</table>

**Minerals**

Iron deficiency has been associated with reduced immunity in human and animal studies. Our bodies can absorb iron better when it’s paired with a food high in vitamin C, such as a citrus fruit, bell pepper or broccoli.

**TEST YOUR KNOWLEDGE**

How certain immune cells function.

A. Beets  
B. Red bell pepper  
C. Eggs  
D. Oatmeal

Answer: C. 600 IU

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**Zinc**

Deficiency in zinc can affect the formation of antibodies and certain immune cell growth.

**TEST YOUR KNOWLEDGE**

How much zinc should you get each day?

A. 11 mg/day males more than 19 years old  
B. 18 mg/day females 19 to 50 years old  
C. 8 mg/day females more than 50 years old

Answer: A. 11 mg/day males more than 19 years old

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**Other Nutrients**

A. Antioxidants  
B. Vitamin D  
C. Copper  
D. Alcohol  
E. Iron  
F. Niacin  
G. Zinc  
H. Protein

**TEST YOUR KNOWLEDGE**

Circle the nutrients that are good for immune health.

A. Antioxidants  
B. Vitamin D  
C. Copper  
D. Alcohol  
E. Iron  
F. Niacin  
G. Zinc  
H. Protein

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**Recommended Intake**

*mg = milligrams; IU = International Units; g = grams; mcg = micrograms*