Manganese-Consumer

url: https://ods.od.nih.gov/factsheets/Manganese-Consumer/  
  
  
Manganese  
Fact Sheet for Consumers  
  
This is a general overview. For more in-depth information, see our health professional fact sheet.  
  
What is manganese and what does it do?  
Manganese is a mineral that your body needs to stay healthy. Your body uses manganese to make energy and protect your cells from damage. Your body also needs manganese for strong bones, reproduction, blood clotting, and a healthy immune system.  
  
How much manganese do I need?  
The amount of manganese you need depends on your age and sex. Average daily recommended amounts are listed below in milligrams (mg).  
  
Life Stage Recommended Amount  
Birth to 6 months 0.003 mg  
Infants 7 12 months 0.6 mg  
Children 1 3 years 1.2 mg  
Children 4 8 years 1.5 mg  
Boys 9 13 years 1.9 mg  
Girls 9 13 years 1.6 mg  
Teen boys 14 18 years 2.2 mg  
Teen girls 14 18 years 1.6 mg  
Adult men 2.3 mg  
Adult women 1.8 mg  
Pregnant teens and women 2.0 mg  
Breastfeeding teens and women 2.6 mg  
What foods provide manganese?  
Many foods contain manganese. You can get recommended amounts of manganese by eating a variety of foods, including the following:  
  
Whole grains, such as brown rice, oatmeal, and whole-wheat bread  
Clams, oysters, and mussels  
Nuts, such as hazelnuts and pecans  
Legumes, such as soybeans and lentils  
Leafy vegetables, such as spinach and kale  
Some fruits, such as pineapple and blueberries  
Tea  
Many spices, such as black pepper  
What kinds of manganese dietary supplements are available?  
Manganese is available in many multivitamin/mineral and other dietary supplements. Supplements contain many forms of manganese, such as manganese sulfate and manganese aspartate. Scientists don t know whether any form of manganese in supplements is better than any other form.  
  
Am I getting enough manganese?  
Most people in the United States get enough manganese from the foods they eat.  
  
What happens if I don t get enough manganese?  
Manganese deficiency is very rare in the United States. A deficiency might cause the following symptoms:  
  
Weak bones and poor growth in children  
Skin rashes and loss of hair color in men  
Mood changes and worse premenstrual pain than normal in women  
What are some effects of manganese on health?  
Scientists are studying manganese to understand how it affects health. Here are some examples of what this research has shown.  
  
Bone health  
You need manganese in combination with other minerals and vitamins for healthy bone formation. However, more research is needed to understand the role of manganese in maintaining or improving bone health.  
  
Diabetes  
You need manganese to help break down the starches and sugars that you eat, but its effect on the risk of diabetes is unknown. More research is needed to understand whether manganese plays a role in the development of diabetes.  
  
Can manganese be harmful?  
Studies have not shown any harm from the manganese in food and beverages, but some people have developed manganese toxicity by consuming water containing very high levels of manganese. Another cause of manganese toxicity is inhaling large amounts of manganese dust from welding or mining work.  
  
The symptoms of manganese toxicity include tremors, muscle spasms, hearing problems, mania, insomnia, depression, loss of appetite, headaches, irritability, weakness, and mood changes.  
  
People should not consume more manganese than the upper limits from food, beverages, or dietary supplements unless their health care provider recommends doing this.  
  
The daily upper limits for manganese include intakes from all sources food, beverages, and supplements and are listed below.  
  
Ages Upper Limit  
Birth to 6 months Not established  
Infants 7 12 months Not established  
Children 1 3 years 2 mg  
Children 4 8 years 3 mg  
Children 9 13 years 6 mg  
Teens 14 18 years 9 mg  
Adults 11 mg  
Pregnant and breastfeeding teens 9 mg  
Pregnant and breastfeeding adults 11 mg  
Does manganese interact with medications or other dietary supplements?  
Manganese is not known to interact or interfere with any medicines.  
  
Tell your doctor, pharmacist, and other health care providers about any dietary supplements and prescription or over-the-counter medicines you take. They can tell you if the dietary supplements might interact with your medicines or if the medicines might interfere with how your body absorbs, uses, or breaks down nutrients, such as manganese.  
  
Manganese and healthful eating  
People should get most of their nutrients from food and beverages, according to the federal government s Dietary Guidelines for Americans. Foods contain vitamins, minerals, dietary fiber, and other components that benefit health. In some cases, fortified foods and dietary supplements are useful when it is not possible to meet needs for one or more nutrients (for example, during specific life stages such as pregnancy). For more information about building a healthy dietary pattern, see the Dietary Guidelines for Americansexternal link disclaimer and the U.S. Department of Agriculture s (USDA s) MyPlate.external link disclaimer  
  
Where can I find out more about manganese?  
For more information about manganese  
Office of Dietary Supplements (ODS) Health Professional Fact Sheet on Manganese  
For more information on food sources of manganese  
USDA, FoodData Centralexternal link disclaimer  
For advice on choosing dietary supplements  
ODS, Frequently Asked Questions: Which brand(s) of dietary supplements should I purchase?  
For information about building a healthy dietary pattern  
MyPlateexternal link disclaimer  
Dietary Guidelines for Americansexternal link disclaimer  
Disclaimer  
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