Magnesium-Consumer

url: https://ods.od.nih.gov/factsheets/Magnesium-Consumer/  
  
  
Magnesium  
Fact Sheet for Consumers  
  
This is a general overview. For more in-depth information, see our health professional fact sheet.  
  
What is magnesium and what does it do?  
Magnesium is a nutrient that the body needs to stay healthy. Magnesium is important for many processes in the body, including regulating muscle and nerve function, blood sugar levels, and blood pressure and making protein, bone, and DNA.  
  
How much magnesium do I need?  
The amount of magnesium 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 30 mg  
Infants 7 12 months 75 mg  
Children 1 3 years 80 mg  
Children 4 8 years 130 mg  
Children 9 13 years 240 mg  
Teen boys 14 18 years 410 mg  
Teen girls 14 18 years 360 mg  
Men 400 420 mg  
Women 310 320 mg  
Pregnant teens 400 mg  
Pregnant women 350 360 mg  
Breastfeeding teens 360 mg  
Breastfeeding women 310 320 mg  
What foods provide magnesium?  
Magnesium is found naturally in many foods and is added to some fortified foods. You can get recommended amounts of magnesium by eating a variety of foods, including the following:  
  
Legumes, nuts, seeds, whole grains, and green leafy vegetables (such as spinach)  
Fortified breakfast cereals and other fortified foods  
Milk, yogurt, and some other milk products  
What kinds of magnesium dietary supplements are available?  
Magnesium is available in multivitamin/mineral supplements and other dietary supplements. Forms of magnesium in dietary supplements that are more easily absorbed by the body are magnesium aspartate, magnesium citrate, magnesium lactate, and magnesium chloride.  
  
Magnesium is also included in some laxatives and some products for treating heartburn and indigestion.  
  
Am I getting enough magnesium?  
The diets of many people in the United States provide less than the recommended amounts of magnesium. Men older than 70 and teenage girls and boys are most likely to have low intakes of magnesium. When the amount of magnesium people get from food and dietary supplements is combined, however, total intakes of magnesium are generally above recommended amounts.  
  
What happens if I don t get enough magnesium?  
In the short term, getting too little magnesium does not produce obvious symptoms. When healthy people have low intakes, the kidneys help retain magnesium by limiting the amount lost in urine. Low magnesium intakes for a long period of time, however, can lead to magnesium deficiency. In addition, some medical conditions and medications interfere with the body s ability to absorb magnesium or increase the amount of magnesium that the body excretes, which can also lead to magnesium deficiency. Symptoms of magnesium deficiency include loss of appetite, nausea, vomiting, fatigue, and weakness. Extreme magnesium deficiency can cause numbness, tingling, muscle cramps, seizures, personality changes, and an abnormal heart rhythm.  
  
The following groups of people are more likely than others to get too little magnesium:  
  
People with gastrointestinal diseases (such as Crohn s disease and celiac disease)  
People with type 2 diabetes  
People with long-term alcoholism  
Older people  
What are some effects of magnesium on health?  
Scientists are studying magnesium to understand how it affects health. Here are some examples of what this research has shown.  
  
High blood pressure and heart disease  
High blood pressure is a major risk factor for cardiovascular disease and stroke. Magnesium supplements might decrease blood pressure, but only by a small amount. Some studies show that people who have more magnesium in their diets have a lower risk of some types of heart disease and stroke. In many of these studies, however, it s hard to know how much of the effect was due to magnesium as opposed to other nutrients.  
  
Type 2 diabetes  
People with higher amounts of magnesium in their diets tend to have a lower risk of developing type 2 diabetes. Magnesium helps the body break down sugars and might help reduce the risk of insulin resistance (a condition that leads to diabetes). Scientists are studying whether magnesium supplements might help people who already have type 2 diabetes control their disease. More research is needed to better understand whether magnesium can help treat diabetes.  
  
Osteoporosis  
Magnesium is important for healthy bones. People with higher intakes of magnesium have a higher bone mineral density, which is important in reducing the risk of bone fractures and osteoporosis. Getting more magnesium from foods or dietary supplements might help older women improve their bone mineral density. More research is needed to better understand whether magnesium supplements can help reduce the risk of osteoporosis or treat this condition.  
  
Migraine headaches  
People who have migraine headaches sometimes have low levels of magnesium in their blood and other tissues. Several small studies found that magnesium supplements can modestly reduce the frequency of migraines. However, people should only take magnesium for this purpose under the care of a health care provider. More research is needed to determine whether magnesium supplements can help reduce the risk of migraines or ease migraine symptoms.  
  
Can magnesium be harmful?  
Magnesium that is naturally present in food and beverages is not harmful and does not need to be limited. In healthy people, the kidneys can get rid of any excess in the urine. However, magnesium in dietary supplements and medications should not be consumed in amounts above the upper limit, unless recommended by a health care provider.  
  
The daily upper limits for magnesium from dietary supplements and/or medications are listed below. For many age groups, the upper limit appears to be lower than the recommended amount. This occurs because the recommended amounts include magnesium from all sources food, beverages, dietary supplements, and medications. The upper limits include magnesium from only dietary supplements and medications; they do not include magnesium found naturally in food and beverages.  
  
Ages Upper Limit for Magnesium  
in Dietary Supplements  
and Medications  
Birth to 12 months Not established  
Children 1 3 years 65 mg  
Children 4 8 years 110 mg  
Children 9 18 years 350 mg  
Adults 350 mg  
High intakes of magnesium from dietary supplements and medications can cause diarrhea, nausea, and abdominal cramping. Extremely high intakes of magnesium can lead to irregular heartbeat and cardiac arrest.  
  
Does magnesium interact with medications or other dietary supplements?  
Yes. Magnesium supplements can interact or interfere with some medicines. Here are several examples:  
  
Bisphosphonates, used to treat osteoporosis, are not well absorbed when taken too soon before or after taking dietary supplements or medications with high amounts of magnesium.  
Antibiotics might not be absorbed if taken too soon before or after taking a dietary supplement that contains magnesium.  
Diuretics can either increase or decrease the loss of magnesium through urine, depending on the type of diuretic.  
Prescription drugs used to ease symptoms of acid reflux or treat peptic ulcers can cause low blood levels of magnesium when taken over a long period of time.  
Very high doses of zinc supplements can interfere with the body s ability to absorb and regulate magnesium.  
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.  
  
Magnesium 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 magnesium?  
For general information on magnesium  
Office of Dietary Supplements (ODS) Health Professional Fact Sheet on Magnesium  
Magnesium in Dietexternal link disclaimer, MedlinePlus  
For more information on food sources of magnesium  
USDA s FoodData Central external link disclaimer  
Nutrient List for magnesium (listed by food or by magnesium content), USDA  
For more 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  
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