

# Chromium

## Fact Sheet for Consumers

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*This is a general overview. For more in-depth information, see our [health professional fact sheet](#).*

## What is chromium?

Chromium is a trace mineral that helps you understand why it's important for carbohydrates.

There are two types of chromium: the type of chromium found in food (chromium) is called chromium (III).

## How much chromium do you need?

Scientists do not know exactly how much chromium you need for good health, and chromium [deficiency](#) has not been reported in healthy people. However, in 2001 scientists did consider chromium to be an [essential nutrient](#), and they set recommended amounts based on the [evidence](#) available at that time. Here are the average daily recommended amounts in [micrograms](#) (mcg) that were established in 2001:

Life Stage	Recommended Amount
Birth to 6 months	0.2 mcg
<a href="#">Infants</a> 7–12 months	5.5 mcg
Children 1–3 years	11 mcg
Children 4–8 years	15 mcg



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Life Stage	Recommended Amount
Boys 9–13 years	25 mcg
Girls 9–13 years	21 mcg
Teen boys 14–18 years	35 mcg
Teen girls 14–18 years	24 mcg
Adult men 19–50 years	35 mcg
Adult women 19–50 years	25 mcg
Adult men 51+ years	30 mcg
Adult women 51+ years	20 mcg
Pregnant teens	29 mcg
Pregnant women	30 mcg
Breastfeeding teens	44 mcg
Breastfeeding women	44 mcg

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## What foods contain chromium?

Many foods contain chromium, including meats, grains, vegetables, and fruits. The amount of chromium in a food depends on the soil in which they were grown and the type of soil. Chromium content of food also varies with the season and the part of the plant that is eaten.

You can get recommended amounts of chromium from a variety of foods, including the following:

- Meats, such as ham, beef, and turkey
- Bread and other grain products
- Vegetables, such as lettuce and green beans
- Fruit, such as apples and bananas
- Juices, such as grape, orange, and tomato juices
- Brewer's yeast and nuts

## What kinds of chromium dietary supplements are available?

and water in which they are grown. Using a chromium supplement can increase the chromium content of food.

ty of foods,

Chromium is available in many dietary [supplements](#), such as multivitamin/mineral supplements and supplements that contain only chromium. Chromium in dietary supplements is in many forms, including chromium picolinate and chromium chloride. Your body [absorbs](#) chromium similarly from the different forms used in supplements.

## What are some effects of chromium supplements on health?

Scientists are studying chromium supplements to understand whether they affect health. Here are some examples of what this research has shown.

### High blood sugar levels and diabetes

Chromium supplements may help with [blood sugar control](#) in people with type 2 diabetes. A study published in the *Journal of Clinical Endocrinology and Metabolism* found that chromium supplements improved blood sugar control in people with type 2 diabetes. The American Diabetes Association states that chromium supplements may have a clear benefit for people with type 2 diabetes. More research is needed to understand whether chromium supplements might improve blood sugar control in people with type 2 diabetes.

### Metabolic syndrome

[Metabolic](#) syndrome is a condition that involves high levels of fat in the blood, high blood pressure, and [cholesterol](#)—raising the risk of heart disease. A few [clinical trials](#) have studied the effects of chromium supplements on people with metabolic syndrome. These studies have found that chromium supplements may help with metabolic syndrome.

### Polycystic ovary syndrome

Polycystic [ovary](#) syndrome (PCOS) is a hormonal [disorder](#) that affects females of [reproductive age](#). [Symptoms](#) include irregular periods, [infertility](#), excess hair on the face or body, [acne](#), and weight gain. PCOS raises the risk of diabetes and heart disease. Studies examining the effects of chromium supplements on PCOS have had mixed results. Any potential benefits appear to be very small. More research is needed to understand whether taking chromium might help lower the risk of PCOS or improve symptoms.

## High cholesterol levels

High levels of LDL (bad) cholesterol can raise your risk of [heart attack](#) and stroke. Studies have examined whether chromium supplements improve cholesterol levels. The results of these studies have been mixed. More research is needed to understand whether chromium supplements have any effect on cholesterol levels.

## Weight and lean body mass

Some chromium supplements are marketed for weight loss and to reduce body fat and increase muscle mass. However, clinical trials have found only a very small benefit. This benefit is unlikely to make any difference in health or appearance.

## Can chromium cause any harm?

Chromium from supplements is generally considered safe, but research is limited. Be cautious about taking high doses of chromium supplements.



cause any disease should

## Does chromium interact with other dietary supplements or medications?

Yes. Chromium supplements may interact with certain medications and other dietary supplements. Here are some examples:

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- Insulin. Taking chromium supplements with insulin may cause low blood sugar levels.
- Metformin and other antidiabetes medications. If you take antidiabetes medicine, taking chromium dietary supplements might cause low blood sugar levels.
- Levothyroxine. Levothyroxine is a medication used to [treat hypothyroidism](#) (a condition in which the [thyroid gland](#) does not make enough thyroid [hormone](#)). Taking chromium dietary supplements together with levothyroxine might reduce the amount of levothyroxine your body absorbs so you might not be getting the full effect of the medication.

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 these dietary supplements might interact with your medicines. They can also explain whether the medicines you take might interfere with how your body absorbs or uses chromium or other nutrients.

## Healthful eating

People should get most of their nutrients from food and beverages, according to the federal government's [Dietary Guidelines for Americans](https://www.dietaryguidelines.gov). 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 Americans](https://www.dietaryguidelines.gov) (<https://www.dietaryguidelines.gov>) and the U.S. Department of Agriculture's MyPlate. (<https://www.mypyplate.gov>)

## Where can I find more information?

- For more information about chromium:
  - [Office of Dietary Supplements Fact Sheet on Chromium](#)
- For more information about dietary supplements:
  - [ODS Basics](#)
  - [Dietary Supplement Fact Sheet](#)
- For information about building a healthy dietary pattern:
  - [MyPlate](#)
  - [Dietary Guidelines for Americans](#) (<https://www.dietaryguidelines.gov>)



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