

# MINERALS

## Calcium

### **Who needs calcium?**

Calcium is important for bones and teeth, but it is also needed to keep your heart and nerves in working order. If you're not getting enough of the mineral from outside sources, your body will take it from the skeleton, which leads to osteoporosis. Bone density is lost from age 35 on. No matter what your age, boosting your calcium can help you hold on to what you have and even rebuild a little. Getting the full recommended amount may possibly reduce your risk of pre-eclampsia during pregnancy (a condition that can lead to miscarriage and even death) and may reduce your risk of colon cancer and help keep your blood pressure in a healthy range. It has also been found that it may be one of the best things you can do to relieve the symptoms of premenstrual syndrome. Researchers suspect that low calcium levels cause the body to secrete PMS-causing hormones.

### **What's the best way to get calcium in my diet?**

Eat more dairy foods. A 200 ml glass of milk provides 200 mg of calcium. Also, so does a yoghurt or a thick slice of cheese, and low or non-fat versions deliver just as much if not more than their fattier counterparts. If you can't stomach dairy, calcium-fortified orange, grapefruit, and apple juice contain just as much as milk does.

### **Should a supplement be taken?**

Generally a supplement is not needed as milk contains nutrients such as potassium, magnesium, and vitamin D as well as calcium. If you feel that you don't get sufficient calcium from diet you should consult with your doctor and you may need supplements.

### **How much calcium is needed?**

The Food Safety Authority of Ireland recommends 800 mg of calcium per day for children and adults over 18. The RDA is increased to 1,200 mg for males and females between 11 and 18 years and for pregnant women or nursing women. Researchers have set the safe upper limit at 2,500 mg per day, but there's little chance you'll ever get there.

### **What's your daily goal?**

Our bodies' need for calcium changes with age. One critical period is during the teenage years, when bone growth peaks. Another is after age 50, when age-related bone loss begins to increase the risk of osteoporosis. These are current per-day recommendations:

➤ Age	➤ Amount
➤ Birth to 1 year	➤ 210 mg
➤ 1 to 3	➤ 500 mg
➤ 4 to 8	➤ 800 mg
➤ 9 to 18	➤ 1,200 mg
➤ Pregnancy	➤ 1,200 mg
➤ 19 to 50	➤ 800 mg
➤ Over 50	➤ 1,200 mg

## Chromium

### Who needs chromium?

Chromium helps the body process food. Chromium may help with weight-loss and body-building may protect you against Type 2 diabetes; however there is no proof yet.

### What's the best way to get chromium in my diet?

There is not enough research yet to give a recommended daily allowance. Researchers who think chromium may stave off diabetes recommend supplements of *200 mcg daily* for healthy people and up to *600 mcg* for people with diabetes.

### Which foods are the best sources?

Whole-grain breads and cereals, potatoes (with skin), mushrooms, beer, peanut butter, and seafood are good sources of chromium. Combining them with foods rich in vitamin C can help you absorb the mineral.

### Should I take a supplement?

There is not enough evidence yet to recommend taking chromium. There is however no adverse effects from taking too much chromium.

## Iron

### **Who needs iron?**

Iron is needed for energy. Iron ensures that oxygen reaches every part of your body. Without enough of it, you'll feel weak and tired -- symptoms of a condition called iron-deficiency **anaemia**. This essential nutrient is especially important for foetuses, children, and adolescents -- anyone who's still growing.

### **How much iron is needed?**

Men and children need *10 milligrams* a day. Since women lose iron in their menstrual blood, they should get *15 mg* a day once they hit adolescence. During pregnancy, a woman's iron requirement doubles to *30 mg* but reverts to *15* while she's breastfeeding. After menopause, women need only *10 mg* a day.

### **Which foods are good sources of iron?**

Meat is the richest source, and the darker the meat, the more iron it contains. Liver contains the highest concentration of iron. Vitamin C helps the absorption of iron.

### **Should I take a supplement?**

Some people can definitely benefit from supplements. Surveys have found that up to 15 percent of teenage girls and 20 percent of women of child-bearing age (usually those who have heavy periods) are iron deficient. However, a small percentage of people carry a gene that causes them to absorb 50 percent more iron than normal (*Haemochromatosis*). This can lead to iron overload, which can lead to heart and liver damage in extreme cases. A standard blood test will not reveal this condition and you can have it even if you're iron deficient.

### **How much iron is needed?**

The Food Safety Authority of Ireland recommends that you should not consume more than *30 mg* of iron per day.

## ZINC

Zinc is an essential mineral that keeps your immune system strong. It also plays a role in fertility, reproduction, and growth. Take care to avoid a cold, although research results are mixed.

### **How much should I be getting?**

The current recommendation is *12 milligrams* a day for women and men, and also need *15 mg* and breastfeeding women need *19 mg* a day.

### **Which foods contain the most zinc?**

Shellfish are the richest source, particularly oysters. One serving of oysters contains 74 mg of zinc. Beans and nuts are other good sources. Whole grains also contain zinc. Certain chemicals in wheat make it harder for the body to absorb the zinc.

### Do I need a supplement?

Most Irish people eat meat at least three times a week, so there is no need for zinc supplements in these cases. Only vegetarians, pregnant women, and breast-feeding mothers need be concerned.

### Can I get too much zinc?

Yes. All metals can be toxic if allowed to accumulate in the body. And taking large doses (such as *50 mg*) on a daily basis can stop your body from absorbing copper, another essential nutrient that helps keep your cholesterol in check.

## Selenium

Selenium is an essential mineral that plays a part in growth and reproduction and helps keep your liver, heart, and muscles in good working order. It may protect against cancer as it is an antioxidant. It helps clear the body of free radicals and unstable oxygen molecules that can cause the DNA damage that leads to tumours.

### How much selenium is needed?

The current recommendation is that women get *55 micrograms* a day and men *70 mcg* to avoid selenium deficiency. Pregnant women need *65 mcg* daily; breastfeeding mothers need *75 mcg*.

### How can I get selenium from my diet?

If you eat a varied diet you probably get about 100 mcg of the mineral a day from food -- half from bread and cereal and half from milk, eggs, meat, and fish.

### Should I take a supplement?

A normal diet provides more than enough selenium to keep you healthy, but it still falls short of the dose researchers have shown is needed for cancer.

### Can I get too much?

Most researchers agree that selenium is safe up to *750 mcg* a day. More than that can result in skin rashes, fragile fingernails, hair loss, nausea, and diarrhea; eventually leading to liver and respiratory problems and even death.