What to know about magnesium deficiency

By Zawn Villines

Reviewed by Suzanne Falck, MD, FACP

A doctor will usually consider a diagnosis of hypomagnesemia where there are fewer than 1.8 milligrams of magnesium per deciliter of blood. Deficiencies do not always cause problems, but some early symptoms include muscle twitching, numbness, and tingling.

If left untreated, hypomagnesemia can cause chronic health problems and decrease the body's levels of calcium and potassium.

In this article, we take a close look at what factors can cause low levels of magnesium. We also explore the effects on the body and methods of treatment.

What is hypomagnesemia?

Hypomagnesemia is when a person has low levels of magnesium.

Magnesium is a mineral and electrolyte that has a number of vital roles in the body. Because the body cannot produce it, magnesium must be consumed as part of a person's diet.

According to the National Institutes of Health, an estimated 50–60 percent of the body's magnesium is stored in the bones, and less than 1 percent is found in the blood.

Detecting a deficiency can be difficult, as it is not part of routine blood work

Results of a 2012 study suggest that around 48 percent of Americans do not get enough magnesium in their diets. However, it is relatively uncommon for low magnesium intake to cause symptoms in healthy people.

Read more

What to know about magnesium deficiency

Is it possible to be overweight and healthy?

The truth behind claims you can be healthy at any size. **Read more**

9 Tips for Flatter, More Defined Abs

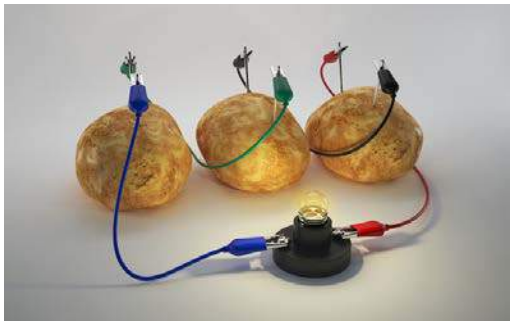
We share some simple exercises and changes in your lifestyle that -- if you give them time and keep at them -- really can whittle your middle.

When it comes to protein, how much is too much?

You've probably heard the claims by now: Here's a diet that's delicious, easy to stick with, and guaranteed to help you lose weight effortlessly. Or, perhaps it's supposed to build muscle, protect your joints or prevent Alzheimer's. Whatever the diet and whatever the claim, there's a good chance that it is, indeed, too good to be true.

Why Do Some Fruits and Vegetables Conduct Electricity?

By Joanna Fantozzi, Live Science Contributor |



Potato power
Credit: Shutterstock

At any science fair, you're almost guaranteed to see at least two go-to experiments: the clichéd papier-mâché volcano and the ever-popular pickle or potato battery. Many people may think it's amazing that a simple piece of produce can conduct electricity. As it turns out, that's not the whole story.

There are many types of electrical conductors. These include traditional electrical conductors, such as the copper and silver wires that are used to run electrical currents in homes and buildings, and ionic conductors, which can power electricity via free moving ions. Organic material, such as human tissue or the potato in your science experiment, are ionic conductors that create ionic circuits. Electrolytes — chemical compounds that create ions when they are dissolved in water — in these materials do all of the work.

"Fruits and vegetables conduct electricity in the same way a salt solution will complete an electrical circuit," Michael Hickner, an associate professor of materials science and engineering at Penn State, told Live Science. "It's due to the ions in the salt solution. They don't conduct electrons [as traditional electrical conductors do] [How Do Batteries Work?]

Why Do Some Fruits and Vegetables Conduct Electricity?

See This