



NUTRITION

✓ Evidence Based

Zinc Supplements: Benefits, Dosage, and Side Effects



Medically reviewed by [Grant Tinsley, Ph.D., CSCS,*D, CISSN](#), Nutrition —
Written by [Rachael Ajmera, MS, RD](#) — Updated on February 14, 2023

[Benefits](#) | [Types](#) | [Dosage](#) | [Safety & side effects](#) | [Bottom line](#)

Many people turn to zinc lozenges and supplements when they feel sick, and for good reason. It is one of the most abundant trace minerals in your body and plays a key role in nearly every aspect of your health.

For example, zinc is required as a cofactor for more than [300 different enzymes](#), meaning it's needed for their proper functioning.

Plus, with research showing that this mineral may enhance immune function, stabilize blood sugar levels, and support skin, eyes, and heart health, there are plenty of reasons to ensure you get your daily dose.

This article reviews the types, benefits, and dosage recommendations for zinc supplements, along with the possible risks and side effects.





d3sign/Getty Images

Potential uses and benefits


Zinc is vital for many aspects of health and has been associated with a variety of benefits.


Treats zinc deficiency

Zinc supplements are often used to help treat and prevent [zinc deficiency](#).

Though zinc deficiency is uncommon, the mineral is considered an essential nutrient, meaning that your body is unable to produce it on its own. People with restrictive diets, impaired nutrient absorption, or certain health conditions may be more susceptible.

Symptoms of a zinc deficiency include decreased immunity, hair loss, poor appetite, diarrhea, and slow wound healing.

[Studies](#)  have found that taking zinc supplements effectively increases zinc levels in the blood.

According to [one review](#) , most cases of zinc deficiency are easily corrected with supplements and dietary modifications, leading to a rapid improvement of any symptoms caused by deficiency.





For example, diarrhea may improve within just 24 hours, whereas skin lesions typically heal within 1–2 weeks after people start taking the supplements.

If you're getting enough zinc in your diet, supplements may not be necessary. If you suspect that you may have a deficiency, a doctor can test your blood levels to determine if a supplement could be beneficial.

May improve immune function

Many over-the-counter (OTC) medications and natural remedies feature zinc due to its ability to boost immune function and [fight inflammation](#). Thus, it could potentially help treat certain types of infection if used when symptoms first appear.

One [review](#) ✓ of 7 studies showed that zinc lozenges containing 80–92 mg of zinc may reduce the duration of the common cold by up to 33%.

Zinc may also act as an [antioxidant](#), reducing inflammation and protecting

against chronic conditions like heart disease, cancer, and diabetes.

According to a [review](#) of 28 studies, some evidence suggests that taking zinc could even prevent symptoms and shorten the duration of certain respiratory tract infections.

May promote blood sugar management

Zinc is well known for its role in [blood sugar management](#) and [insulin secretion](#). Insulin is the hormone responsible for transporting sugar from your bloodstream to your tissues.

Some research suggests that zinc may help keep blood sugar levels steady and improve your body's sensitivity to insulin.

One [review](#) reported that low zinc levels could be linked to impaired blood sugar levels and type 2 diabetes.

Other [research](#) shows that zinc may help reduce insulin resistance, which can improve your body's ability to use insulin efficiently to maintain normal blood sugar levels.

Helps fight acne

Zinc supplements are often used to promote skin health and treat common skin conditions like [acne](#).

A type of zinc called zinc sulfate has been proven especially useful for decreasing symptoms of [mild to moderate acne](#).

According to one [review](#), not only did people with acne tend to have lower blood levels of zinc compared with those without acne, but zinc supplements were also able to decrease the average amount of inflammatory bumps caused by the condition.

Zinc supplements are also often favored over other treatment methods, as they're inexpensive, effective, and associated with far fewer side effects.

May improve heart health



Heart disease is a serious health condition, accounting for roughly [33%](#) of deaths worldwide.

Some research shows that taking zinc may improve several risk factors for heart disease. They may even [lower triglyceride](#) and cholesterol levels.

A [review](#) of 24 studies found that zinc supplements decreased levels of total and LDL (bad) cholesterol and blood triglycerides. As such, they could potentially help prevent heart disease.

Another [analysis](#) of nine studies showed that zinc supplements could reduce systolic blood pressure levels, which is the top number of blood pressure readings.

However, research on the effects of supplements on blood pressure is limited. Further, [some studies](#) suggest that low levels of serum zinc may be associated with a higher risk of coronary heart disease, though findings remain inconclusive. Thus, more research is needed.

Slows macular degeneration

Macular degeneration is a common eye disease and one of the leading causes of vision loss around the globe.

Zinc supplements are often used to slow the progression of [age-related macular degeneration \(AMD\)](#) and help protect against vision loss and blindness.

One [2014 study](#) in 72 people with AMD showed that taking 50 mg of zinc sulfate daily for 3 months slowed the progression of the disease.

Other [reviews](#) similarly recommend zinc supplements to slow the progression of AMD, claiming that it may improve nutrient flow in the retina to protect against disease.

However, other [studies](#) suggest that zinc supplements alone may not significantly improve vision and should be paired with other treatment options to maximize results.

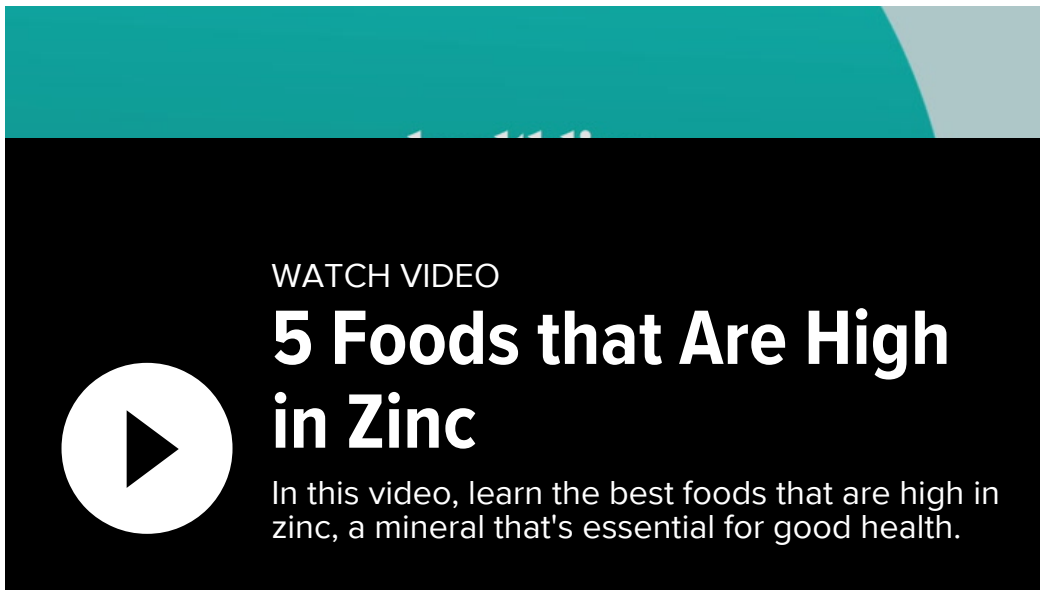
As such, more research is needed to learn more about the connection between this mineral and eye health.



SUMMARY

Zinc may reduce the duration of cold symptoms, support blood sugar management, improve severe and inflammatory acne, decrease heart disease risk, and slow the progression of macular degeneration.

5 Foods that Are High in Zinc



Types of zinc supplements

When choosing a zinc supplement, you'll likely notice that there are many different types available.

These various forms of [zinc](#) affect your health in distinct ways.

Here are a few types you might find on the market:

- **Zinc gluconate.** As one of the most common OTC forms, zinc gluconate is often used in cold remedies like lozenges and nasal sprays.
- **Zinc acetate.** Like zinc gluconate, zinc acetate is often added to cold lozenges to reduce symptoms and speed up recovery.

- **Zinc sulfate.** In addition to helping prevent zinc deficiency, zinc sulfate has been shown to reduce the severity of acne.
- **Zinc picolinate.** According to one older [study](#), your body may absorb this form better than other types of zinc, including zinc gluconate and zinc citrate.
- **Zinc orotate.** This form is bound to a compound known as orotic acid. It's one of the most common types of zinc supplements on the market.
- **Zinc citrate.** One [2014 study](#) showed that this type of supplement is as well absorbed as zinc gluconate but has a less bitter, more appealing taste.

Because it's one of the most widely available and cost-effective forms, zinc gluconate can be a good option to bump up your intake without breaking your bank.

Meanwhile, if you're able to invest a bit more, zinc picolinate may be better absorbed.

Available in capsule, tablet, and lozenge form, there are plenty of options to get your daily dose of zinc — regardless of the type you choose.

Keep in mind that nasal sprays containing zinc have been linked to [loss of smell](#) and should be avoided.

SUMMARY

There are several forms of zinc supplements that affect your health in unique ways. They're generally available in capsule, tablet, and lozenge form. Avoid zinc-containing nasal sprays, as they may affect your sense of smell.

Dosage

How much zinc you should take per day depends on your dietary intake



and the type of supplement you choose, since supplements can contain different amounts of elemental zinc.

For example, zinc sulfate consists of 23% elemental zinc, so 220 mg of zinc sulfate provides around 50 mg of zinc.

The elemental amount is usually listed on the label of your supplement, making it easy to determine how much to take to meet your daily needs.

For adults, the recommended daily dosage is typically 15–30 mg of elemental zinc.

This amount can also be obtained by enjoying a variety of foods rich in zinc as part of a healthy diet, such as meat, poultry, seafood, fortified breakfast cereals, nuts, seeds, legumes, and dairy products.

For example, a 3-ounce (85-gram) serving of beef patty contains 5.3 mg of zinc while certain types of breakfast cereal contain around 2.8 mg per serving.

Higher doses of supplemental zinc may be used to treat conditions like acne, diarrhea, and respiratory infections.

However, due to the potential side effects associated with [excess zinc consumption](#), it's best not to exceed the upper limit of [40 mg per day](#) — unless under medical guidance and supervision.



SUMMARY

Different zinc supplements contain varying concentrations of elemental zinc. The recommended dosage for daily supplements is 15–30 mg of elemental zinc.

Safety and side effects

When used as directed, zinc supplements can be a safe and effective way to increase your zinc intake and improve several aspects of your health.

However, there are also side effects to consider.

Side effects of oral zinc supplements

Zinc supplements are generally well tolerated, though they've been associated with adverse side effects like [nausea](#), vomiting, diarrhea, and stomach pain in some people.

Plus, exceeding 40 mg per day of elemental zinc can cause flu-like symptoms like fever, coughing, headache, and fatigue.

Zinc can also hinder your body's ability to [absorb copper](#), potentially leading to a deficiency in this key mineral over time.

Furthermore, zinc supplements have been shown to interfere with the [absorption of certain antibiotics](#), reducing their effectiveness if taken at the same time.

To reduce your risk of side effects, stick to the recommended dosage and avoid exceeding the tolerable upper limit of 40 mg per day, unless under medical supervision.

If you experience any negative side effects after taking zinc supplements, decrease your dosage. Consider consulting with a healthcare professional if symptoms persist.



SUMMARY

Zinc can cause negative side effects, including digestive issues and flu-like symptoms. It may also interfere with the absorption of copper and reduce the effectiveness of certain antibiotics.

The bottom line

Zinc is an essential mineral that plays a key role in multiple aspects of your health.



Supplementing with 15–30 mg of elemental zinc daily may improve immunity, blood sugar levels, and eye, heart, and skin health.

However, it's important not to exceed the upper limit of 40 mg of zinc per day, as consuming high amounts could cause digestive issues and flu-like symptoms, [decrease copper absorption](#), and reduce the effectiveness of certain antibiotics.

Just one thing

Try this today: In addition to using zinc supplements, you can also increase your intake naturally by adding more [zinc-rich foods](#) to your diet. These include nuts, seeds, legumes, meat, seafood, and dairy.

healthline

Was this helpful?  



Last medically reviewed on January 18, 2022

 [SOURCES](#)  [HISTORY](#)

Our experts continually monitor the health and wellness space, and we update our articles when new information becomes available.

● Current Version

○ Feb 14, 2023

Written By

Rachael Ajmera, MS, RD

Edited By

Daney Helgadóttir

Copy Edited By

Anne Arntson

○ Jan 18, 2022

Medically Reviewed By

Grant Tinsley, Ph.D., CSCS,*D, CISSN

[VIEW ALL HISTORY](#) +