

# Zinc and Fertility: The Most Important Mineral for Your Fertility

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<https://natural-fertility-prescription.com/zinc-and-fertility/>

Zinc and fertility go together like bees and honey. Zinc is the most important mineral and antioxidant in pregnancy and preconception. It is required for fetal growth and development of muscles and bones. It reduces the risk of stretch marks, perineal tears, cracked nipples and it is necessary for immune function and brain formation.

## 82% of Pregnant Women Worldwide Are Deficient in Zinc

While zinc is necessary for fertility, pregnancy and fetal development, sadly, the majority of pregnant women are deficient in zinc. A study found that **82% of pregnant women all around the world are deficient in zinc**<sup>[1]</sup>. This puts mothers and unborn children at risk of developing various health issues, considering low zinc levels in pregnancy have been linked to labor complications, low birth weight and premature delivery. Before we go into detail about how zinc can help improve fertility, let us look into what zinc really is.

## What Is Zinc?

Zinc is a trace element that's needed in various functions of the body, including immune function<sup>[2]</sup>, learning, fertility and others. In fact, according to one study, zinc is **required in the activity of more than 300 enzymes in the human body**<sup>[3]</sup> — that's how important zinc is!

### Is Zinc Good for Fertility?

Yes, it is! In fact, a couple of studies confirm that zinc and fertility go together. While low zinc levels will NOT necessarily make you infertile, being zinc deficient can contribute to issues in your reproductive function. Let us take a closer look at zinc and fertility in both men and women:

## Zinc and Fertility: Zinc for Men

Is zinc good for men's fertility? Studies show that zinc is a very important nutrient for male fertility. In men, zinc is involved in the following reproductive functions:

- testosterone synthesis
- prostate health and general sexual function
- helps in capacitation and acrosome reaction (fertilization)

Studies have shown that zinc has been implicated in testicular development and sperm maturation. Zinc also has antioxidant activity and helps protect sperm DNA from damage (especially in smokers). Because

zinc is necessary for the above functions, its deficiency in men has been linked to low testosterone levels and low sperm count and motility<sup>[4]</sup>. **Recommendation:** Sperm contains up to 5 mg of zinc per discharge, so it's very important for men to keep up their zinc levels by eating foods with zinc and by taking high-quality zinc supplements.

## Zinc and Fertility: Zinc Supplement for Women?

In women, zinc plays a role in sexual development, ovulation, and menstrual cycle. Studies have determined that concentrations of zinc and folate may have substantial effects on reproduction. Zinc is also required for the [production of healthy eggs](#) in women. Animal studies involving zinc and reproduction have '**consistently shown a zinc requirement for oocytes**'<sup>[5]</sup> (female egg cells) for various processes like cell division, fertilization and embryo development. Also, according to a recently published research<sup>[5]</sup> on zinc and fertility, zinc deficiency in females can cause:

- smaller eggs,
- disrupted egg cell growth,
- problems in cellular development and
- impaired ability of the egg to divide properly (which is a very important factor in fertilization)

Sadly, the impaired ability of the egg to properly divide (caused by the zinc deficiency) lasted even after more zinc was introduced later on. Deficiency during pregnancy [can lead to miscarriages](#) and retarded development due to abnormalities in the chromosomes (DNA).

## More on Zinc

### Longevity and Beauty

Zinc is an anti-aging mineral and is required for **proper tissue repair**<sup>[6]</sup> and hormonal balance. When you are deficient in zinc, your body will go get some from your own reserves. It will start with tissues that can't hold onto it very well. The first ones where the body will get the zinc from are the skin and hair. Because of this, the result is flaky skin, stretch marks and hair loss. This is why it's not surprising that many women develop stretch marks and report hair loss in pregnancy. While hair loss can be influenced by hormonal changes in the body, it is also a definite sign of zinc deficiency.

### Multitasking Mineral

Apart from its roles in fertility, cell and tissue repair and the functions mentioned above, zinc's other roles include:

- **Enzymes:** Cofactor of hundreds of enzymes, including enzymes involved in food digestion and absorption.
- **DNA:** Zinc is needed for proper DNA replication and function.
- **pH:** Regulates the pH of the cells (if cells are too acidic they are more prone to disease)
- **Vitamin A:** Essential for [vitamin A](#) and folic acid metabolism and transportation
- **Immunity:** Required for activation of T-lymphocytes (white blood cells required for cell-

mediated immunity) and making the ‘natural killer cells’ more lethal than they already are.

- **Insulin:** Controls release of insulin (hormone required for the absorption of glucose, its imbalance can lead to diabetes, [insulin resistance](#), [PCOS and infertility](#)).
- **SOD:** Makes up one of the most potent antioxidants produced by the human body – Superoxide dismutase (SOD).
- **Flexibility:** Plays an important role in the health and flexibility of the connective tissue, skin and blood vessels.

## Absorption

Zinc absorption can be impaired if you are taking antacids and proton pump inhibitors. It requires an acidic environment for optimal absorption and is, therefore, best taken on an empty stomach. As it competes for absorption with other nutrients, don't have it at the same time as your multivitamin. Zinc absorption is adversely affected by so many chemicals commonly found in natural food and it fights for absorption with so many other nutrients, not much of it ends up getting absorbed! So, how should you take zinc? Zinc should be taken on an empty stomach last thing at night.

## Deficiencies and Excesses

Since fruits and grains are not optimal sources of zinc, vegans and vegetarians can be deficient in zinc as vegetables. Phytic acid found in legumes will also block zinc and other mineral absorption. In addition, smoking, drinking coffee, tea and alcohol increases your need for zinc.

### Are You Zinc Deficient?

Signs of zinc deficiency are loss of appetite, hair loss, white bands and spots on the nails, frequent colds and infections, slow healing wounds, stretch marks, dermatitis, diminished sense of smell and taste and premenstrual pimples and many more. However, while it's important to supplement with zinc, there are also risks involved when you're consuming zinc in excess. Excessive zinc consumption of 40mg/day may compete with copper and impair immune function. According to one 2017 study, **excess zinc in the body may disrupt cell function**<sup>[7]</sup> and can predispose you to infections and inflammatory diseases. You have to consume zinc in just the right amounts.

### So, How Much Zinc Should You Have?

Recommendations for daily intake of zinc are:

- 8 mg/day for women
- 11mg/day for men
- 11 mg/day during pregnancy
- 12 mg/day during lactation

As for men with sperm abnormalities, 25 to 50 mg of zinc have been shown to increase sperm count and boost testosterone levels.

## Zinc and Fertility: Where to Get It From?

A good way of making sure you have enough zinc in your body is to include more zinc-rich foods in your diet. A few great sources of zinc are the following:

- Lean meat
- oysters
- whole grains
- nuts
- pumpkin seeds
- egg yolks

Besides food sources, you can also get this element from zinc supplements form – look for **zinc acetate or zinc picolinate or zinc citrate**, the best tolerated and bioavailable forms of zinc in a supplement. Stay clear from zinc oxide as it's the least absorbent form of zinc! And remember, it is important to constantly supplement with zinc (either by eating zinc-rich foods or by taking zinc supplements) since **the body can't store zinc**<sup>[8]</sup>. Zinc and fertility are inseparable. Make sure to get enough zinc when trying to conceive. If in doubt if you have enough Zinc, see a qualified naturopath. Are you getting enough zinc? Do you have white spots on your nails? Share your thoughts!

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