How to Increase Male Fertility with Selenium

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With male infertility on the rise – contributing to as much as 40% to 50% of infertility cases worldwide – many couples have started to wonder how to increase male fertility naturally. Not only that—according to a review from the Journal of Human Reproductive Sciences, 2% of all men also have inferior sperm parameters (like low sperm count, poor sperm motility and other abnormal sperm characteristics) that can contribute to the growing male infertility problem. And because there are natural ways to treat male factor infertility, in this article, we’ll look at Selenium, one of the most important minerals for healthy sperm. Here we’ll also share natural ways on how to make sperm stronger for pregnancy, which you’ll find helpful especially if you and your partner are trying to conceive. But before discussing Selenium for fertility, let's first have a look at male factor infertility.

What Is 'Male Factor Infertility'?

Infertile couples are couples who are unable to conceive after actively trying to conceive for a year. As for male infertility (or male factor infertility), this means that the inability of the couple to conceive is due to the male partner's fertility issues. Male infertility is usually due to poor sperm parameters. Male fertility-related factors that contribute to male factor infertility include the following:

- poor sexual function (erectile dysfunction or impotence, problems in ejaculation)
- low sperm count
- low sex drive (libido)
- poor sperm motility
- abnormal sperm morphology
- low testosterone levels
- poor lifestyle and diet choices

Although infertility is influenced by plenty of factors including a man's diet and lifestyle, existing medical conditions, genetics and others, infertility largely depends on sperm and semen parameters.

What is Selenium?

Selenium is a major micro-mineral antioxidant important for immune and thyroid function, and breast health in women. In pregnancy, selenium maintains healthy blood pressure while its deficiency has been linked to Down syndrome and SIDS (sudden infant death syndrome). Apart from all of these functions, selenium is also needed to increase male fertility.

Selenium’s Functions:

To help you understand selenium better, we have enumerated some of selenium's important functions in
the body:

**Selenium for Fertility: 3 Functions**

1. **Sperm Shape**

Selenium maintains the shape of the sperm mitochondria (cell’s energy generator).

2. **Super Antioxidant**

Selenium protects fatty acids from oxidizing. Sperm is mainly made of essential fatty acids. Essential fatty acids can easily oxidize and become rancid. For sperm, this means abnormal sperm parameters leading to infertility. Tight underwear, varicose veins of the testis, hot baths and sports like bike riding can all increase scrotal temperature leading to fatty acid oxidation and sperm defects.

3. **Egg Development**

Animal studies showed that selenium deficiency led to poor egg development and increased birth defects. What causes deficiency?

**More Selenium Functions in the Body:**

1. **Conquers Viruses**

Low selenium status can lead to increased virulence of pathogens. Selenium has been shown to reduce oxidative stress induced by the pathogens, and minimize their ability to mutate to more aggressive forms.

2. **Responsible for Thyroid Hormone Metabolism**

Selenium regulates the movement of iodine among different types of hormones produced by the thyroid gland. It also monitors the amounts of accumulated thyroxine in the liver and kidneys, inactivating any excesses.

3. **Protects Fetal Tissue**

A developing embryo could be harmed by high levels of thyroid hormone in the mother’s body. Selenium shields the fetus by neutralizing some of its strength.

4. **Maintains Healthy Insulin Levels in the Body**

Selenium plays a crucial role in reducing elevated insulin in the blood.

5. **Gene Expression and Cell Replication**

Involved in gene expression and cell replication, Selenium plays a role in apoptosis (cell self-destruction when it's faulty). Animal studies showed that rodents deficient in selenium had more tumor formations.
than those whose selenium status was normal.

Selenium Deficiency Can Lead to Infertility

Men lose selenium primarily in semen. Its deficiency has been linked to low sperm count, poor motility and odd morphology (shape). Its deficiency can not only lead to infertility in men but can also increase the risk of cardiac failure, cancer, liver disease, hair loss and skin changes.

Selenium and Fertility: What Causes Selenium Deficiency?

This element comes in many forms, some are water-soluble. In this form, a lot of selenium is lost through cooking and food storage. Poor nutritional intake of selenium is the main cause of selenium deficiency. Factors which may affect how much selenium you take in include the following:

Depleted Soil

Some soils have been identified as selenium-deficient regions like the following:

- Australian, New Zealander and Chilean soil
- Some parts of the Pacific Northwest (in the US)
- Parts of the Great Lakes region moving eastward toward the New England states (in the US)
- Some parts of the Atlantic Coast (in the US)

Where soil is depleted in selenium, the food sources grown in such soil will also be depleted in selenium.

Drug Interaction

Glucocorticoids – a group of widely used anti-inflammatories deplete the body’s selenium reserves.

How to Increase Male Fertility with Selenium?

Since selenium deficiency is caused by poor intake of selenium from food, the main solution for increasing selenium for male fertility is increasing its intake. Here are ways to increase selenium for better sperm health:

1. Supplementation

One of the male fertility supplements you should take is Selenomethionine, the organic form of selenium. Selenomethionine is a good form of selenium for supplementation.

2. Positive Nutrient Interactions

Since studies have shown vitamin E and selenium together have protective and beneficial effects of semen quality. Often successfully used to increase male fertility, you should pair your selenium
supplement with vitamin E.

3. Food Sources

What should I eat to make my sperm strong? Selenomethionine is available as a dietary supplement, but it also naturally occurs in Brazil nuts, soybeans, some legumes and cereal grains\(^2\). While you can take selenium as a dietary supplement, you can increase your intake of the above foods to increase male fertility. Because Brazil nuts are an excellent source of selenium, men should have 2-3 Brazil nuts a day to keep their sperm in good shape and increase male fertility. Onions, garlic, grains, Brazil nuts, lean meat, seafood, fruit, and vegetables also contain selenium, but to a lesser extent.

**What's the Recommended Daily Intake of Selenium?**

Here are the recommended daily values of selenium for both men and women:

- **55 µg/day** during preconception care in women, 55µg/day in men
- **60 µg/day** during pregnancy
- **70 µg/day** during lactation

**Recommended Therapeutic Dose**

For those deficient in selenium, the recommended values are different. In order to reach a therapeutic effect, men with sperm abnormalities are given **200 to 400 micrograms of selenium to improve overall sperm function**. However, men should steer clear of doses over 400 micrograms. While selenium toxicity is rare, the intake of more than 400 micrograms of Selenium should be avoided.

**Other Ways to Increase Male Fertility: 6 Ways**

So, how can I increase sperm count naturally? Apart from supplementing with selenium, taking vitamin E and eating foods naturally rich in selenium, there are other ways to increase male fertility, like the following:

1. **Maintain a Healthy Weight.**

   According to studies, obesity has a negative impact on sperm health. In one retrospective study on Chinese men, **obese participants have had poor sperm count**, quality and appearance\(^3\) compared to men with normal body mass indices.

2. **Exercise regularly.**

   Because regular exercise can help improve sperm parameters and boost testosterone levels, it can also help increase male fertility. According to one study, men who **exercised regularly had better sperm parameters**\(^4\) than men who were sedentary. However, make sure not to exercise too much, since **extra rigorous exercise may decrease testosterone levels**\(^5\), one study says.
3. Take Other Supplements.

Besides selenium, your swimmers need vitamin C, vitamin D and zinc. In men with poor sperm characteristics, the supplementation of vitamin C for 2 months improved their overall sperm parameters. According to a study, men who took vitamin C had better sperm count and sperm motility and had more normal-looking sperm[^6^] than men who did not. Vitamin D is also as necessary as vitamin C—in men, vitamin D is also needed in healthy sperm production, maintaining optimum testosterone levels and in increasing the sperm's fertilizing capacity. Zinc, on the other hand, is another very important mineral for male fertility. As Zinc encourages sperm formation (spermatogenesis), it also is an important factor in testosterone production[^7^]. But since zinc can't be stored in the body, you need to constantly supplement your body with zinc, either by supplements or by eating zinc-rich foods to increase male fertility.

4. Find Ways to Reduce Stress.

Since stress and infertility are related, stress may affect your hormonal balance, whether you're male or female. The more stressed you are, the more difficult it may be for you and your partner to conceive. To mitigate stress, you can consider doing light exercises, breathing exercises or other activities that your naturopath may recommend.

5. Consult a Natural Fertility Specialist.

For expert and personalized advice on herbal supplements, natural low sperm motility solutions or natural sperm morphology treatment, consult a qualified naturopathic physician. Through the help of a natural fertility doctor, fertility issues you may have will be addressed accordingly. How do you increase male fertility? Making sure you have an adequate intake of selenium is one of the many steps to take into consideration. Are you experiencing male infertility? What steps have you taken to address your sperm health and trying to increase male fertility? I’d love to hear your thoughts!

References


www.ncbi.nlm.nih.gov/pmc/articles/PMC5582143/


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