

Supplements for Ovarian Reserve

INTRODUCTION

Physicians are trained to practice evidence-based medicine, which means that before recommending any treatment, we rely on existing scientific data. In the case of herbal or vitamin supplementation, our guidance is based on the available evidence. Although there is no clear evidence of harm from vitamins when consumed as part of a healthy diet, well-controlled studies demonstrating their benefits—particularly for improving fertility in women and men—are few. Therefore, the true benefits of the following supplements remain uncertain, and their use cannot be definitively justified based on current evidence.

• COENZYME Q10

CoQ10 is a supplement that can support both female and male fertility.

For women: CoQ10 helps protect eggs from damage caused by stress in the cells and supports energy production in the ovaries. This can improve egg quality, increase the number of eggs retrieved during IVF, and support better embryo development. These benefits are especially important for women with lower ovarian reserve or age-related fertility decline.

For men: CoQ10 may improve sperm health by boosting energy in sperm cells and reducing damage from stress. Studies show it can increase sperm count, movement, and sometimes shape, which may improve chances of conception.

Recommended dose: 100mg twice a day

• L-ARGININE

L-arginine is an amino acid (a building block of protein) that helps the body make nitric oxide, which supports healthy blood flow. Because blood flow is so important for the ovaries, uterus, and placenta, L-arginine has been studied in fertility and pregnancy.

For women: L-arginine may improve the way the ovaries respond to stimulation, help eggs mature, and improve the uterine lining and blood flow. Some studies suggest it could increase pregnancy rates in women with a poor ovarian response during IVF, or when male factor infertility is also involved.

For men: L-arginine plays a role in sperm production and movement. Research shows it may help improve sperm quality and function, which are key for fertilization.

Recommended dose: 1000mg daily

• MYO-INOSITOL

Myo-inositol is a natural substance (similar to a vitamin) that helps regulate hormones and insulin, both of which are important for fertility.

For women (especially with PCOS): Improves ovarian function and hormone balance.

Helps restore regular ovulation and lowers androgen (male hormone) levels. In IVF/ART, it may reduce the amount of medication needed, improve egg and embryo quality, and increase pregnancy rates. Can lower the risk of ovarian hyperstimulation syndrome (OHSS) and may reduce complications like gestational diabetes during pregnancy.

For men: It may improve sperm movement and shape, especially in men with low-quality semen.

Recommended dose: 2 grams twice daily

• OMEGA-3 FATTY ACIDS

Omega-3 fatty acids (especially DHA and EPA, found in fish oil) can support fertility in both women and men. Fertility societies recommend including omega-3-rich foods in a fertility-friendly diet.

For women: Higher intake of omega-3s is linked to better egg and embryo quality, improved chances of conception, higher live birth rates, and a lower risk of miscarriage.

They may also help the uterus be more receptive to an embryo and reduce inflammation, which supports fertility.

For men: Omega-3s are associated with improved sperm count, movement, and concentration, though research is less clear on whether this leads to higher pregnancy rates with IVF or other treatments.

Recommended dose: 1000mg daily (DHA+EPA)

• VITAMIN C

Vitamin C is an antioxidant, meaning it helps protect cells from damage. Since oxidative stress can affect both eggs and sperm, Vitamin C has been studied for its role in fertility.

For women: Vitamin C intake may help shorten the time it takes to get pregnant, especially in younger women with a healthy weight. Some studies suggest antioxidants (including Vitamin C) may slightly improve pregnancy rates.

For men: Vitamin C may improve sperm count, movement, and shape by reducing damage to sperm. Some studies also suggest it may improve fertilization rates in couples undergoing IVF or other fertility treatments.

Recommended dose: 1000mg daily (not to exceed 2000mg daily)

• VITAMIN D

Vitamin D isn't just important for bones—it also plays a key role in reproductive health for both women and men.

For women: Having healthy Vitamin D levels is linked to better ovarian function, egg development, and a receptive uterine lining. Deficiency may increase the risk of conditions like PCOS, endometriosis, preeclampsia, and gestational diabetes. Women with good Vitamin D levels tend to have higher pregnancy and live birth rates, both naturally and with fertility treatments.

For men: Higher Vitamin D levels are linked with better sperm motility and overall quality, though studies are less clear on whether this directly improves live birth rates.

Recommended dose: 2000 IU daily (if no deficiency). Dosing individualized if deficiency is found.

• VITAMIN E

Vitamin E is an antioxidant that helps protect cells—including eggs and sperm—from damage caused by oxidative stress.

For women: Higher Vitamin E intake may help some women—especially those over 35—conceive faster.

For men: Vitamin E has been shown to improve sperm count and movement, especially when combined with other treatments. Some studies also report higher pregnancy rates in couples when men with sperm issues take Vitamin E.

Recommended dose: 750mg (1000 IU) daily