



## Supplements for Ovarian Reserve

## INTRODUCTION

Physicians are trained to practice evidence-based medicine. What that means is that we want well-controlled studies supporting the benefits of treatment before we recommend it. In the case of herbal/vitamin supplementation we cannot definitively justify their use for improving fertility in women and men based on existing data. However, there's no evidence that there is harm from using the following list of supplements and the true benefits remain unknown.

### ● COENZYME Q10

Coenzyme Q10 (Co Q10), which is also known as ubiquinone, is a vitamin-like substance that is present in most cells. It is an antioxidant, inhibiting oxidation in other molecules. Oxidative reactions produce free radicals which can cause cellular damage/death. It is not considered a vitamin because all normal tissues in the body make their own Co Q10 so it does not need to be supplied in the diet. It is mainly present in the mitochondria of cells and is a component of the electron transport chain that is involved in generating cellular energy in the form of ATP. The vast majority of the human body's energy is produced in this way.

The antioxidant activity of Co Q10 may help preserve the health of sperm. Some studies have shown improvements in both motility and concentration of sperm.

Co Q10 may improve the energetic state of an aging oocyte and result in more accurate chromosomal separation, increase embryo quality and improve pregnancy rates. The antioxidative properties of Co Q10 may protect oocytes from oxidative and toxic damage.

**Recommended dose:** 100 mg – 300 mg once or twice daily

### ● DHA

DHA stands for Docosahexaenoic acid, which is an omega-3 fatty acid and found in conjunction with EPA (Eicosapentaenoic acid). DHA is beneficial for neurological health and is added to prenatal vitamins for the central nervous system and optical development of a fetus. While it's not always included in prenatal supplements, it is highly recommended that both pregnant and breastfeeding women take a DHA supplement.

**Recommended dose:** 1000 mg daily

### ● DHEA

DHEA, which stands for Dehydroepiandrosterone is a hormone found within the body. DHEA has recently garnered a lot of attention in the world of fertility for helping women with Diminished Ovarian Reserve and Premature Ovarian Insufficiency as it is a precursor to hormones such as testosterone and estrogen and may help increase follicular stimulation. It is also known to sharply decline with age. DHEA has been shown in some small studies to improve IVF outcomes in women that are poor responders to IVF. Some research also points to DHEA as possibly reducing aneuploidy (chromosomal abnormalities) in embryos and thereby decreasing miscarriage rates.

**\*\*DHEA should not be used during pregnancy**

**Recommended dose:** 25 mg one to three times a day

## ● L-ARGININE

L-arginine is a naturally occurring amino acid obtained from dietary sources (dairy, fish, meat, poultry and nuts). It promotes the synthesis of Nitric Oxide (NO). NO is naturally produced by the body and is important for blood vessel dilation which increases blood flow to various organs. L-arginine has been cited to help increase both male and female fertility through increased circulation. Increased blood flow to the uterus may promote implantation and improve cervical mucus. The head of the sperm contains an exceptional amount of this nutrient, which is essential for sperm production. Supplementing with L-arginine may help to increase sperm count and quality and improve erectile function. \*\*People who have herpes (either cold sores or genital herpes) should not supplement with L-arginine because it may induce an outbreak. \*\*good supplement for vegans

**Recommended dose:** 500 mg daily

## ● OMEGA-3 FATTY ACIDS

The three most common omega-3 fatty acids used in the human body are: alpha-linolenic acid (ALA), eicosapentaenoic acid (EPA), and docosahexaenoic acid (DHA). Omega-3 fatty acids are found in fish oil and vegetable sources, including flax and hemp seeds. According to the Mayo Clinic, omega-3 fatty acids are thought to reduce inflammation in the body, improve learning ability in children, decrease triglycerides, lower blood pressure, reduce blood clotting, enhance immune function, and improve arthritis symptoms.

**Recommended dose:** Eat two servings of fish per week

## ● ROYAL JELLY

Royal Jelly is rich in amino acids, lipids, sugars, vitamins, and most importantly, proteins. It contains high levels of vitamins D and E, iron and calcium. It is suggested to support egg and sperm health. Specific benefits are unknown.

\*\*Avoid if allergic to bee stings/bee products.

**Recommended dose:** 500 mg daily

## ● VITAMIN C

Vitamin C is also an antioxidant, and studies show that vitamin C enhances sperm quality and protects sperm DNA from damage. Research suggests that DNA fragmentation/damage within sperm reduces fertilization and increases miscarriages.

**Recommended dose:** 90 mg or more daily (not to exceed 2000 mg daily)

## ● VITAMIN E

Vitamin E is a powerful antioxidant and has been shown to increase fertility when given to both men and women. It has been suggested that the antioxidant activity of vitamin E may improve sperm quality by reducing exposure to free radicals.

**Recommended dose:** 1000 mg (1500IU) daily

**vitamins are key  
in a healthy diet**



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