Understanding EGG quality and how YOU can influence the chances of becoming pregnant!

EGG QUALITY. What does it mean?

It is a potential of an egg to become a viable pregnancy after fertilization. Sadly many fertilized eggs never become a successful pregnancy, only a third actually survive to become a baby. This issue receives little attention.

Egg quality plays a critical role in how long it takes to become pregnant, whether naturally or through IVF, and the result often depends on the egg’s DNA.

The decline in fertility as we age is almost entirely a result of the decline in egg quantity and quality. One of the most important factors is for the egg to have the correct number of copies of each chromosome, chromosomal abnormalities in egg have a great impact on fertility and for many women become the greatest obstacle to becoming pregnant. A common belief is that chromosomal errors are beyond our control, but recent research shows that this in fact can be influenced by nutrients and lifestyle factors that you can control. It is worth noting that on average a quarter of eggs have chromosomal abnormalities and this is much more common than you might expect. Even young healthy women, in their thirties, with no fertility issues will have cycles with little potential to conceive. If the egg is abnormal with little potential to support pregnancy then perfect timing, ovulation tests etc. will make no difference and pregnancy will not occur. It is true that fertility declines as we get older, and the potential for egg abnormalities is far greater, however it is very important to understand that chromosomal abnormalities in eggs do not accumulate gradually over years, but a couple of months before an egg is ovulated. In simpler language ageing creates conditions that predispose eggs to mature incorrectly shortly before ovulation but does not directly diminish egg quality. What does it mean to you? By changing conditions before ovulation you can influence the quality of eggs that you ovulate and increase the odds of becoming pregnant.

**DHEA -> Dehydroepiandrosterone and how it works**

It is a molecule naturally produced in the body and correct levels are needed for the production of certain hormones critical to fertility such as estrogen and testosterone. DHEA levels decline with age, depriving the ovaries of the vital hormones that are responsible for correct egg development. Supplementation with DHEA may improve ovary function allowing more eggs to mature and improve their quality. DHEA can reduce the hormones critical to fertility such as estrogen and testosterone. DHEA levels decline with age, depriving the reproductive system fully functioning.

**Melatonin**

The levels of melatonin decline with age and as a result ovaries lose this natural protector against oxidative stress – scientists have recently discovered that taking melatonin supplement can restore antioxidant defences inside eggs and improve egg quality.

**Folic Acid (Folate)**

This crucial phytonutrient helps regulate your reproductive system work properly. Zinc helps the eggs from chromosomal damage which is known to be significant difference in the chance of success. Some studies have found that a deficiency of B12 may increase the chances of irregular ovulation, and in severe cases, stop ovulation altogether.

**Vitamin D**

Vitamin D deficiency is linked to infertility and research shows women with sufficient vitamin D levels are more likely to get pregnant, and produce high quality eggs and embryos (for those undergoing in vitro treatment). Vitamin D plays a role in hormone production that controls reproduction. Deficiency may interrupt estrogen levels reducing production of antimullerian hormone (AMH) which is involved in the growth of ovarian follicles.

**Magnesium**

Magnesium is crucial for many basic functions of the body and good health. Some of the functions include: blood pressure regulation, maintaining healthy heart rate, balancing blood sugar levels and muscles health. Magnesium deficiency (not enough) has been linked with female infertility. This is because magnesium supports blood supply to the uterus and progesterone production – a hormone essential in the menstrual cycle, sometimes referred to as ‘the hormone of pregnancy’. Magnesium also supports eggformation and when taken along with selenium helps lower the risks of miscarriage.

**Myo-Inositol**

One of the roles of myo-inositol in the development of follicles and blood sugar balance. Myo-inositol (Myo-inositol) is part of the vitamin B family and has been found in the follicular fluid of higher quality eggs. Myo-inositol is also thought to increase insulin sensitivity of the ovary, which helps improve egg quality. It is recommended that a woman who is trying to conceive should take it three months before they try to conceive while their eggs are developing. It may improve egg quality and pregnancy rate in women with failed IVF.

**CoQ10 and how it works**

CoQ10 transfers electrons inside the mitochondria creating electrical energy, which then fuels creating healthy eggs. Eggs need energy in the form of ATP to be able to mature properly. Not enough energy may result in egg abnormalities (poor quality). The energy is also needed to develop the fertilized egg into a blastocyst and for correct implantation. CoQ10 increases the production of energy (ATP) and the ATP supply needed to fuel egg development and so it suggests that it can significantly improve egg quality. Eggs can take 3-4 months to develop and CoQ10 needs several weeks to build up in tissues so for IVF treatment it is recommended to take this supplement 4-6 months in advance to make a significant difference in the chance of success.

**Zinc**

Zinc is a key factor in making many parts of the reproductive system work properly. Zinc helps the cells divide properly; keep levels of estrogen and progesterone in balance and maintain the reproductive system fully functioning.

**Betα Carotene**

This crucial phytonutrient helps regulate your hormones, it supports healthy development of an early pregnancy.

**Vitamin E**

Vitamin E is essential to improve fertility - Without vitamin E the body cannot reproduce. It is a powerful fat-soluble antioxidant that has a beneficial effect on egg quality. It reduces the free radical damage in ovarian follicles.

**Vitamin C**

Vitamin C is a water-soluble antioxidant found in ovarian follicles that may help in some age-related decline in ovary function. Research shows that it could be useful to women with unexplained infertility.

**Vitamin B6**

According to studies vitamin B6 lowers chances of miscarriage by 50% and improves fertility by 120%. Vitamin B6 therefore plays a vital role – may increase progesterone levels and lengthen the luteal phase to the optimum, reduce the production of prolactin and help with cell division.

**Vitamin B12**

Some studies have found that a deficiency of B12 may increase the chances of irregular ovulation, and in severe cases, stop ovulation altogether.

**B Vitamins**

Magnesium is crucial for many basic functions of the body and good health. Some of the functions include: blood pressure regulation, maintaining healthy heart rate, balancing blood sugar levels and muscles health. Magnesium deficiency (not enough) has been linked with female infertility. This is because magnesium supports blood supply to the uterus and progesterone production – a hormone essential in the menstrual cycle, sometimes referred to as ‘the hormone of pregnancy’. Magnesium also supports eggformation and when taken along with selenium helps lower the risks of miscarriage.

**Vitamin B1**

Vitamin B1 (Riboflavin B2)

**Vitamin B3**

Vitamin B3 (Niacin) is a water-soluble vitamin necessary for proper acetylcholine regulation and the production of harmoanl activity, the levels can be easily exhausted through alcohol, smoking and stress.

**Selenium**

Selenium is a mineral antioxidant that helps protect your body from free radicals damage. Together with vitamin E selenium is an essential nutrient for fertility that helps to achieve pregnancy. Selenium deficiency has been linked to infertility and so selenium supplementation before trying to conceive is very important. Selenium helps to protect the eggs from chromosomal damage which is known to be a cause of failed conception, miscarriages and birth defects. Selenium supports healthy cell division and can increase chances of healthy conception.

**Chromium**

To maximize your chances of conceiving it is crucial that you are obtaining the right nutrients and in the right quantities to enhance your success. Each ingredient in this supplement is at the highest effective amount to help achieve best results.

**CoQ10 length**

This can be adjusted to its optimum length in preparation for fertilization, for some it could be longer, for others, shorter, depends on where you are now.

**Mid-Cycle spotting**

This can be adjusted to its optimum length in preparation for fertilization, for some it could be longer, for others, shorter, depends on where you are now.

What to expect?

Changes you may experience during supplementation

You have decided to use this supplement in order to achieve faster, most likely because you have been unsuccessful so far - you may be prepared for changes and do not fear them when they come, this instinct is normally good if you are not prepared for a change then why take the supplement? This can be a 28-day treatment cycle and still not able to conceive. Slight changes to the phase length in other the follicular phase or luteal phase could have a significant improvement on overall fertility.

Questions? Email: info@cassanovum.com