

Our top tips to optimise your fertility:

- **Eat a wide variety of whole foods.** To ensure that you are eating a wide range of the nutrients known to be important for fertility and health, try to include plenty of different fish, vegetables, wholegrains, nuts and seeds in your diet. Avoid sugary and processed foods where you can and swap them for healthier treats like fruit.
- **Check your stress levels.** Higher stress levels can have a negative impact on both male and female fertility. If you feel that your stress levels are higher than they should be, try taking more active steps to manage them. Acupuncture, mindfulness or breathing exercises and gentle exercise can all help.
- **Keep hydrated.** Most of us need to drink at least 1.5 litres of water daily. Try to drink water throughout the day and avoid sugary soft drinks, diet drinks and juices. Drinking caffeine can contribute to sperm abnormalities, delay conception and increase risk of miscarriage. Try to limit yourself to one cup of tea or coffee per day and replace with herbal teas or water.
- **Reduce your exposure to toxins.** Both smoking and drinking alcohol increase levels of harmful free radicals and can damage fragile genetic material in eggs and sperm. Stop smoking if possible. Acupuncture and hypnotherapy may help. Both men and women should avoid drinking alcohol while trying to conceive, as alcohol can cause a decrease in sperm count and motility and can delay conception in women. A limit of 5 units per week is recommended for both men and women while trying to conceive.
- **Get regular, gentle exercise.** Taking gentle exercise at least three times per week will help support weight management and keep stress levels in check. Men should avoid intensive exercise, in particular cycling and triathlons, as these are known to raise scrotal temperatures and damage sperm. Being underweight and overweight can both have a negative impact on fertility. Aim to have a BMI of between 20 and 25.

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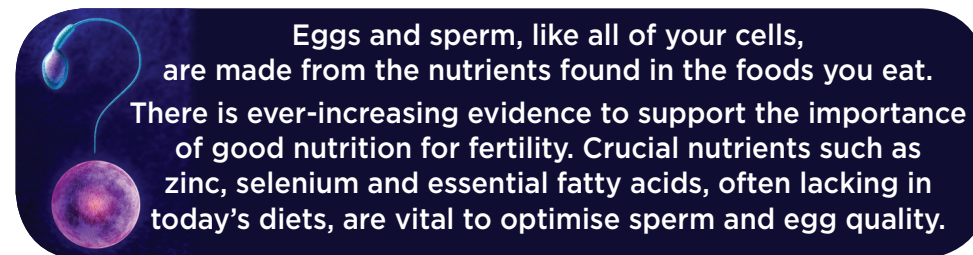
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Top Tips to Support your Fertility

When you are trying to optimize your chances of conceiving, improving your diet and lifestyle is an important step to take.



Antioxidant Vitamins C & E

Both sperm and eggs develop surrounded by fluid which needs to be high in antioxidants to protect these vulnerable cells from oxidative stress and other damaging substances. Vitamin C and vitamin E work together in this regard and are linked with improved sperm quality and decreased sperm DNA fragmentation¹. Vitamin C may also play a role in hormonal regulation of ovulation².

Vitamin C is sensitive to cooking and processing so it is best to eat at least some Vitamin C rich foods in raw form, fresh and straight after preparation to get the most benefit. Foods sources include citrus fruits, peppers, spinach, berries, parsley, broccoli, kiwi fruit, cauliflower, kale and red cabbage.

Vitamin E can be found in sunflower seeds, wholegrains, avocados, tomatoes, almonds and other nuts, spinach and other green leafy vegetables. Be aware that vitamin E has blood thinning properties and should not be taken in supplement form during IVF treatment where anti-coagulants are used.

Zinc

Zinc is essential for sperm production and low blood levels are linked to impaired motility, morphology and count³. It is a crucial mineral in women for the development of mature eggs, maintaining uterine health and regulation of hormones⁴. It is also part of one of the most important families of antioxidants, protecting developing sperm and eggs. Good food sources of zinc include oysters and other shellfish, pumpkin seeds, sesame seeds, cashew nuts, beef, lamb, venison, yoghurt, turkey and peas. Taking too much supplementary zinc can cause an immune imbalance which may not favour implantation of an embryo.



Selenium

Selenium is a component of another crucial family of antioxidant proteins, particularly important in protecting immature sperm as they develop⁵. Selenium also plays an important role in female fertility, being essential for thyroid function, hormone balance and immune function. Low levels are associated with recurrent miscarriage. The best food source are Brazil nuts, where 3-4 daily is enough. It is important not to take too much selenium as high doses can be toxic to the body. Other sources include wheat germ, mackerel, cashews, garlic, barley, wholegrain bread, oats and crab.



CoQ10

Coenzyme Q10 is a vitamin-like substance that acts as an antioxidant, helping to protect cells from damage caused by normal everyday living and exacerbated by stress, pollution and nutrient deficiencies. CoQ10 also plays an important role in energy production, vital for the journey of the sperm post-ejaculation to reach the egg. A significant body of research shows that supplementing with CoQ10 can help with sperm quality, quantity and motility⁶, and may be particularly important to support egg quality in older women⁷.

Folic Acid & B Vitamins

It is well known that folic acid can help prevent neural tube defects in the developing baby and women are advised to take folic acid supplements for at least 14 weeks prior to and 12 weeks into pregnancy. Folic acid, along with other B vitamins, is required for the formation of new DNA, essential for the development of sperm, eggs and healthy embryos. Folic acid deficiency can also increase homocysteine in the blood, which is linked to inflammation and early pregnancy loss. Some conditions and medications can increase the need for folic acid but all of the B vitamins are essential during the pre-conceptual period and should ideally be taken as a complex, rather than individually.



Vitamin D

Optimum levels of Vitamin D have been associated with improved sperm quality and quantity⁸. For women, sufficient Vitamin D is believed to help to maintain a pregnancy and is associated with better IVF outcomes⁹. It also plays a vital role in our immune system, which means adequate levels are essential in immune-related subfertility. Vitamin D is primarily produced in the skin by exposure to the sun and many people in Ireland have low levels, so supplementation is often needed. If you are supplementing Vitamin D ensure to take vitamin D3 (Cholecalciferol), ideally in liquid form. Excess vitamin D can be stored in the body, so it is recommended that you have your levels tested, as high levels can be harmful or have a negative effect on your immune system.

Iron

Both iron deficiency and iron overload, a common genetic disorder in Ireland, are important in male subfertility¹⁰. It is also essential for women to have good levels of iron while trying to conceive and during pregnancy. Symptoms of iron deficiency include fatigue, breathlessness, dizziness and unusual pallor and if you experience these or have previously had low iron levels, you should have your iron levels checked. You should only supplement iron if blood tests show that this is required. If you do need to take an iron supplement, look for iron in easily absorbable forms e.g. iron citrate or iron phosphate, particularly if you have found iron supplements to cause constipation in the past.

Omega-3 Fatty Acids

Omega-3 fats are naturally anti-inflammatory and are helpful for maintaining the immune balance required to maintain a pregnancy. They are also important for women with PCOS, helping to support insulin metabolism. The external membrane of sperm is predominantly made of omega-3 fats. Studies have shown their effect on male fertility with improved sperm count along with motility and morphology¹¹. The best source of omega-3 is oily fish such as organic salmon, mackerel, and sardines. Aim to eat these at least 3 times per week. Other lesser sources include pumpkin seeds, chia seeds, walnuts and ground linseeds. If buying a fish oil supplement, look for good levels (>500mg) of the active omega 3 constituents, EPA and DHA, rather than the total fish oil on the label.



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