Nutrition plays a very important role in your fertility, from both the male and female perspective. Nutrients that are involved in egg and sperm production can be deficient or used up in other processes such as inflammation or stress. In addition, our diets can be lacking in these nutrients in the first place, from poor choices and lack of variety, to poor quality foods due to over-farming and over-processing.

Essential nutrients

**Zinc** – essential for both egg and sperm production

**Selenium** – component of antioxidant, protects egg and sperm during development

**Anti-oxidant vitamins** – Vitamin E, vitamin C and beta-carotenes

**Omega-3 fatty acids** – balancing hormones, controlling inflammation which might prevent pregnancy, critical to sperm development

**Vitamin D** – critical to male and female fertility, also in controlling inflammation

**L-carnitine and L-arginine** – essential for energy production in sperm

**Foods to include:**

Fruit & Veg – 5 portions of veg and 2 portions of fruit per day, with a wide variety of colours

Nuts & Seeds – in snacks, muesli, salads, dips & spreads for antioxidant minerals

Oily fish – 4 portions per week of organic /wild salmon, mackerel, sardines, herring

1.5L Water per day

**To avoid**

* Excess sugar and refined foods – for balancing hormones, controlling inflammation
* Caffeine – limit to one coffee per day
* Alcohol – maximum 5 units per week
* Excess exercise – moderate exercise is beneficial but too much can result in stress and inflammation. Cycling in men may cause decreased sperm counts and/or DNA damage
* Exposure to xenoestrogens, chemicals – eat organic where possible, never heat food in plastic containers and eat a wide variety of non-processed foods to avoid over-exposure to any one source

Other considerations

**Weight** - Being overweight can have a major impact on fertility, from the production of healthy eggs and sperm, to increased inflammation and imbalanced hormones.

**Digestion** - We need good digestion to absorb all of the nutrients we take in. In addition, we need to recycle hormones on a regular basis. This requires a regular bowel movement and a good balance of beneficial bacteria. Inflammation can often stem from the digestive system and cause a reduction in antioxidants which would otherwise be needed to protect developing eggs and sperm.

**Age**- A woman’s fertility declines after 35, with significant decreases after 40 and then 42. The DNA in sperm can also show increased signs of damage with male age.

Your basic nutritional and fertility tests

**Ferritin** – a measurement of your iron stores. Iron is required for adequate blood and oxygen supply for implantation of the embryo and a healthy pregnancy

**Folic acid** – Folic acid is essential for making new DNA and thereby foetal development. Folic acid deficiency is linked with infertility and also newborn defects such as spina bifida or cleft lip/ palate

**B12** – works with folic acid in the process of making new DNA

**Vitamin D** – essential for fertility, implantation of the embryo and controlling inflammation

**AMH** – your AMH is an estimation of egg reserve, which normally declines with age. A low AMH may indicate a need for additional medical support in trying to conceive. However, some outside factors can influence AMH such as inflammation, autoimmune antibodies and low vitamin D which should also be addressed

Additional tests (optional)

Your nutritionist may recommend additional tests based on your history and consultation.

**Functional Nutritional Profile** – If your diet is poor or you show signs of deficiencies, this comprehensive panel measures minerals, vitamins and fatty acids essential to fertility. Malabsorption issues or high demands for antioxidants in inflammation or stress can cause significant depletion of these nutrients

**Thyroid tests** – your thyroid regulates your hormonal balance. Thyroid conditions are extremely common and need to be managed to optimise fertility

**Semen Analysis** - it is recommended to carry out a semen analysis at the same time as any hormonal tests. A regular semen analysis measures the number of sperm (‘count’), the shape of the sperm (‘morphology’) and their ability to swim (‘motility’). It may also indicate infection or anti-sperm antibodies that may affect fertility

**Sperm DNA fragmentation test** – In addition to a regular semen analysis, this test looks at the integrity of the DNA within the sperm. Delivering paternal DNA to the egg is the fundamental role of the sperm. DNA damage can coincide with other sperm problems as detected by a regular semen analysis but, importantly, can also be present in approximately 1/3 of men with a normal semen analysis. This can be a major cause of ‘unexplained infertility’

After your nutrition consultation….

**Female Client**

Make an appointment for an ultrasound scan and appointment with Consultant Gynaecologist Dr. Pat Tunney at Orwell Medical clinic. Appointment should be timed for mid-cycle. Stay off any supplements for three days prior to your appointment. You do not need to be fasting for your blood tests. Results will be returned to Glenville Nutrition within 5-7 working days of the tests.

**Male Client**

The semen analysis is carried out by the Sims clinic in Clonskeagh. Fill out the male part only of the online form for the Sims His&Hers test - <http://www.sims.ie/our-treatment-programmes/his-hers-fertility-test.1231.html>. In the Comments box, please fill in “Glenville Nutrition patient for semen analysis only”. The clinic team will give you a call to arrange an appointment time which will suit you. Please pay the clinic directly and request an email copy of your results. Please send these on to your nutritionist when received.