Female Fertility Report: A Practitioner's Guide

Infertility affects 20-30% of women of reproductive age globally[1]. While common diagnoses like **PCOS, uterine fibroids, and endometriosis** are well-established, a growing body of evidence points to the crucial role of modifiable factors such as **diet, body weight, oxidative stress, psychological and emotional stress, and inflammation**.

Many women struggling with fertility fail to meet optimal nutrient needs, specifically **folate, calcium, iodine, iron, selenium, vitamin D, and vitamin B12**. Research confirms that **genetic variations significantly impact individual nutrient requirements,** highlighting the need for personalised dietary and supplemental strategies.[2]

Dietary choices profoundly influence fertility outcomes. Diets rich in **sugar, processed red meat, refined carbohydrates, saturated fatty acids, and artificial sweeteners** have been shown to negatively impact fertility. Conversely, a diet abundant in **omega-3 fatty acids**, **monounsaturated fatty acids, antioxidants, fruits, and vegetables** can reduce oxidative stress and improve reproductive success. Notably, clinical research demonstrates that adherence to a **Mediterranean diet can increase the chance of pregnancy by IVF by 40%.**[3]

Specific nutrient considerations are also paramount:

- For patients with **MTHFR variants**, **methylfolate or folinic acid** is demonstrably preferred over synthetic folic acid.
- Studies link lower zinc levels to a **66% increased risk of IVF failure.** [4]
- **Ferritin levels below 30 µg/L** are associated with unexplained infertility, and **iron supplementation** has been shown to decrease the risk of ovulatory infertility, a critical point given that approximately **40% of women enter pregnancy with insufficient iron reserves.** [5]
- In **PCOS patients, calcium and vitamin D supplementation** can significantly improve fertility outcomes. [6]

Key Genetic Markers Analysed

Our **Women's Fertility Panel** supports a truly personalised and evidence-based approach to female infertility, analysing **34 genes** that influence the most significant factors affecting female fertility. This includes **ovarian function, hormone balance, oxidative stress protection, and overall reproductive health.**

Report Highlights:

Ovarian Reserve and Function
Assisted Reproductive Technology (ART) Responsiveness
Estrogen Detoxification Pathways
PCOS Predisposition and Management
Oxidative Stress Protection
Thyroid Function (TSH, T3, T4)
Sleep Quality
Stress Management

Comprehensive Assessment of Key Nutrients:

- **Nutrients:** Folate, B12, B1, A, D, E, Calcium, Iron, Ferritin, Zinc, Selenium, Choline, Prebiotic Fiber, Omega-3 Fatty Acids, Glutathione, Fasting Insulin.

Addressing Environmental Exposures

The rapid acceleration of environmental toxin exposure over the past five decades is hypothesised to be a leading cause of infertility. **PCBs, phthalates, and BPA plastic** have been correlated with extended time to conception, poorer IVF fertilisation rates, ovarian cysts, uterine polyps, and disruptions in hormone metabolism and transport, contributing to conditions like hypothyroidism. Furthermore, studies confirm that promoting an **organic diet can significantly reduce urinary glyphosate levels**, potentially improving reproductive health. [7]

- **Environmental Factors (impact assessed):** PCBs, Phthalates, BPA, Pesticides, Glyphosate

Insights from this panel can identify underlying genetic predispositions, specific nutrient needs, and environmental vulnerabilities unique to each patient, allowing tailored and targeted interventions that may support improved fertility and overall health.

Take the Next Step in Personalized Health

Contact us today to learn more.

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