



Preconception Blood Tests and Optimal Values

ELITE HEALTH FUSION

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I'm Tamara of Elite Health Fusion

I help women and couples prepare their bodies for pregnancy through nutrition, lifestyle changes, and evidence-based supplement strategies.

if you'd like personalised support with your fertility journey, book a 1:1 session with me (scan the QR code) today.

Together, we'll create a plan tailored to your needs so you feel confident and ready for your next chapter



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Introduction

Whether you're planning to start trying in 6–12 months or you're already on your TTC journey, understanding what's happening inside your body is one of the smartest things you can do to prepare.

This resource outlines some of the core blood tests I recommend all women request from their GP in their preconception phase. These tests help uncover imbalances or deficiencies that may not show up as obvious symptoms—but can still impact fertility, hormone health, egg quality, and early pregnancy outcomes.

Important to note:

Your GP might say your results are “fine” – but fine doesn’t always mean optimal, especially when it comes to fertility.

Inside my Fit & Fertile program, we aim for functional and fertility-focused ranges – not just what’s considered “normal” for the general population.

Use this guide to advocate for yourself, ask better questions, and take a proactive role in your fertility journey.



Blood Tests To Consider Asking Your GP For:

Category		Optimal Range	Why does it matter?
Hormonal Health	Follicle-Stimulating Hormone (FSH)	3–9 IU/L on Day 3 of the menstrual cycle.	Reflects ovarian reserve, ovulation status, and hormone balance. Abnormal levels may indicate PCOS, diminished ovarian reserve, or luteal phase defects.
	Luteinising Hormone (LH)	2–10 IU/L on Day 3; a surge >20 IU/L indicates impending ovulation.	LH triggers ovulation. An elevated LH:FSH ratio may suggest polycystic ovary syndrome (PCOS)
	Estradiol (E2)	70–500 pmol/L on Day 3 of the cycle.	Estradiol reflects ovarian follicle activity. Levels that are too high or too low can indicate issues with ovarian function.
	Progesterone	30–90 nmol/L mid-luteal (approx day 21 in a 28-day cycle) OR testing should occur 7 days post-ovulation for accuracy.	Progesterone confirms ovulation and supports the uterine lining for implantation.



Category		Optimal Range	Why does it matter?
Thyroid Function	Thyroid-Stimulating Hormone (TSH)	0.47- 1.48 mIU/L.	TSH regulates thyroid hormone production. Levels outside this range can increase impaired ovulation and miscarriage risk.
	Free T4 (Thyroxine)	14-16 pmol/L	Free T4 is the active form of thyroxine. Abnormal levels can indicate thyroid dysfunction, affecting fertility.
	Free T3 (Triiodothyronine)	4.0 - 6.0 pmol/L.	Free T3 is the active thyroid hormone. Imbalances can disrupt menstrual cycles and ovulation.
	Reverse T3	230-540 pmol/L	Reflects the body's stress load and can slow metabolism, impacting fertility.
	Thyroid Antibodies (TPOAb & TgAb) ** SUPER important to request**	TPOAb: < 35 IU/ML TgAb: < 20IU/mL However, ideally negative.	These can indicate autoimmune thyroid conditions, such as Hashimoto's or Graves' disease. This can increase the risk of miscarriage, interfere with ovulation, and impair implantation even if thyroid hormone levels look normal.



Category		Optimal Range	Why does it matter?
Metabolic Health	Fasting Glucose	3.9-5.55 mmol/L	Maintaining normal glucose levels is crucial for hormonal balance and ovulation.
	HbA1c	< 5.1%	HbA1c reflects average blood glucose levels over the past 2-3 months. Higher levels can impair fertility and increase miscarriage risk.
	Fasting Insulin	< 3-6 pmol/L is optimal Up to 10 pmol/L is accepted but values above warrant further investigation.	Elevated insulin can indicate insulin resistance, which is associated with ovulatory dysfunction and PCOS.
Inflammation	C-Reactive Protein (CRP)	< 1.0 mg/L	CRP is a marker of systemic inflammation. Elevated levels can interfere with implantation and early pregnancy development.

Category		Optimal Range	Why does it matter?
Nutrient Status	Iron	9-17.9 umol/L	
	Transferrin	2.0-3.0g/L	
	Total iron Binding Capacity (TIBC)	44.8-62	
	Transferrin Saturation	20-35%	
	Ferritin	Female:100-150 ng/ml Male: 100-236 ng/ml	Adequate iron stores are essential for ovulation and preventing anemia during pregnancy.
	Serum B12	Minimum 600 nmol/L	Vital for DNA synthesis and neurological function. Deficiency can lead to ovulatory disorders.
	RBC Folate	> 1000 nmol/L	Folate is crucial for DNA synthesis and preventing neural tube defects in early pregnancy.
	Vitamin D	> 100 nmol/L	Vitamin D supports immune function and hormone regulation. Deficiency is linked to infertility and miscarriage.
	Zinc	11-18 µmol/L	Zinc plays a role in cell division and ovulation. Adequate levels are necessary for reproductive health.



Category		Optimal Range	Why does it matter?
Liver Functioning Tests (LFTs)	(Total) Bilirubin	1.7-20.5 µmol/L	Helps assess the liver's ability to process waste; impaired function can affect hormone clearance and inflammation.
	Alkaline Phosphatase (ALP)	70-100 U/L	Reflects liver and bone health; imbalances may signal liver stress affecting hormonal balance.
	Gamma GT (GGT)	10-30 U/L	Indicates liver detox capacity and oxidative stress, which can impact hormone metabolism
	ALT	10-30 U/L	Sensitive marker of liver cell health; elevated levels suggest liver inflammation affecting estrogen clearance.
	AST	10-30 U/L	Another key liver enzyme; high levels can signal liver or metabolic stress, influencing reproductive hormone regulation



Getting clear on your blood work is just the beginning.

If you want help interpreting your results through a fertility lens – or knowing what to do if something's out of range – that's exactly what we work through inside **Fit & Fertile**.

You deserve to feel confident, informed, and supported every step of the way.

Let's make sure your body is ready to grow the healthiest future baby possible – starting from the inside out.

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