



MAXIMIZING YOUR FERTILITY

for a Healthy Pregnancy: Natural Conception,
IVF and Beyond



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Congratulations on downloading this ebook.

You've made a great decision and a huge step forward towards understanding how to maximise your fertility. Since you're reading this, chances are you're concerned about your own ability to create a baby, or maybe fertility issues affect someone close to you.

Problems with fertility affect around one in seven couples in the UK, and they're on the rise. They can be an immense cause of frustration, heartache, stress and relationship issues.

But by understanding some of the many and varied reasons why your body is reluctant to start a pregnancy, you can be empowered to make incredibly beneficial changes to improve your chances of conception.

If you embark on an IVF journey, we're here to help, too. By using science-based knowledge about the types of nutrients known to improve IVF outcome, combined with information about imbalances in the body that can reduce the success of IVF, we'll work with you to maximise your chances.

In this ebook, you'll first learn why sometimes it can be hard to make babies. Then, you'll discover some natural solutions for maximising your chances of conception.

Read on to start this exciting journey right now and discover more about how to naturally support fertility for both Mum and Dad-to-be.



-Jo and Ryre x

Why did we make this eBook?

A few years ago, I went on my own IVF journey and was shocked to discover just how little information is out there about nutrition and lifestyle guidance that can improve fertility outcomes. IVF is emotional and expensive, so why aren't we empowering people with the tools and knowledge to create the best possible outcomes?

That is why Ryre and I decided to create this comprehensive guide to fertility. So whether you're trying to conceive naturally, or are going through IVF, the tools included here will give you a solid foundation to start from.



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Having two children of my own and witnessing this unfold before my very eyes I can tell you now that this stuff works! Now I want to help other people achieve their goals of starting a family.

It can be as simple as working on a few nutrient deficiencies between you and your partner that will have an impact on egg and sperm health, or more complex conditions and using functional testing to explore the gut and vaginal microbiome. Whatever the case, I work alongside couples and individuals getting to the root cause of their imbalances and reducing all the overwhelm which comes with this.

Why Does Infertility Occur?

Infertility is defined as an inability to conceive following at least one year of unprotected sex. Infertility as a term sounds very final, but it only means you haven't had a successful conception – *yet*.

For a woman to fall pregnant, she must first ovulate, in other words, release an egg, and it must be healthy. Her male partner must be capable of producing plenty of mobile and healthy sperm to fertilise the egg. Finally, the woman's womb must be able to house the egg as it develops through to full term.

Millions of sperm are released with each ejaculation but of these, only a few will make it anywhere near an egg. To stand any chance of fertilisation, as many sperm as possible need to be produced, and they must be resilient and mobile enough to swim and find an egg.

You might be wondering why problems conceiving are becoming more prevalent. There are many factors involved, including later life first pregnancies, the nosediving of male sperm counts, an epidemic of nutrient deficiencies in the face of plentiful food, and a sea of oestrogens in the environment. All these create a perfect storm for reducing fertility levels.

As you can see there are many factors involved and therefore it is not always as easy as it seems to fall pregnant.

Worldwide, sperm counts have fallen by a frightening 50% over the last 40 years. With fewer sperm to go around, they're less likely to be able to find an egg.

Alongside falling sperm counts, many men have sperm that can't swim well, meaning it's harder for them to move around. This adds in further difficulties in the race to locate an egg. In fact, male fertility issues are believed to be a factor in almost half of all couples who have trouble conceiving.

Therefore, throughout this book, we'll be concentrating on fathers as much as mother.



You Need Hormones to Make Babies

Most issues relating to poor fertility relate to hormone imbalances.

So to understand why you're having difficulty in conceiving or maintaining a pregnancy, it's helpful to become familiar with the male and female reproductive hormones.

We often like to refer to hormones as talented musicians of an orchestra.

All our hormones are like specific instruments, designed to work together in harmony in a well coordinated symphony.

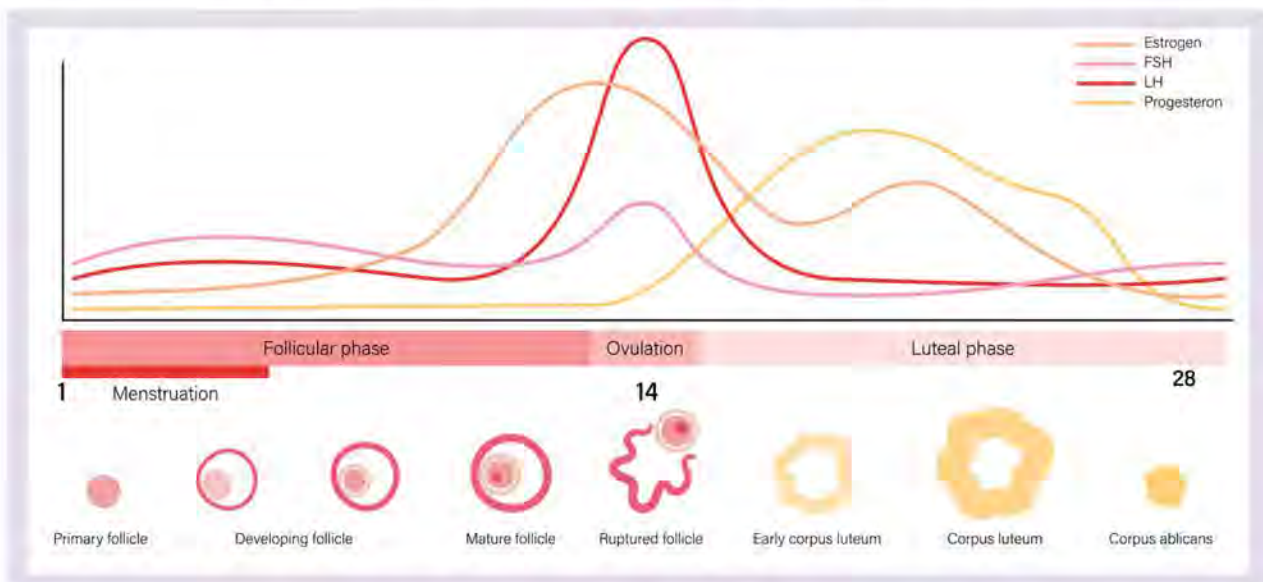
When one of these hormones is off the whole balance shifts.



Women's Hormones

Women's hormones naturally fluctuate across the menstrual cycle, with your hormonal pattern being unique to you.

Hormones are your body's messenger substances – they allow parts of your body to talk to other parts. The two major female hormones are oestrogen and progesterone. During the first few weeks of pregnancy, both these hormones are produced from the corpus luteum – the empty shell left after the egg has been released. After a few weeks, production is taken over by the placenta.



Oestrogen levels rise during the first half of your menstrual cycle, known as the follicular phase, and peak at ovulation. This hormone helps to develop the egg and thins your cervical mucus, making it easier for sperm to reach an egg.

Progesterone is produced during the second half of your menstrual cycle, known as the luteal phase. This hormone prepares the womb lining for pregnancy, so it can welcome a fertilised egg, and prevents any muscular contractions of the uterus that might lead to the egg being lost or rejected. Progesterone levels rise steadily throughout pregnancy, but if they fall or remain low, pregnancy can't continue and the foetus will miscarry.

We mentioned earlier an egg needs to be released in order to be fertilised. Although normally an egg is released each time a woman has a cycle (around once per month), sometimes this doesn't happen.

Although you'll go on to have a period during your cycle, it might be delayed or heavier than usual.

This is called an anovulatory cycle, and they're more common in the years leading up to the menopause. If you don't ovulate, conception can't occur.

Anovulatory cycles can be connected with some medical conditions, drugs and lifestyle habits such as obesity or underweight, stress and excessive exercise, and they tend to get more common as you get older.



Oestrogen Dominance

So, by this you can see you need sufficient oestrogen to conceive. However, problems can also occur if oestrogen is too high, and this tends to be more common than having low oestrogen.

Oestrogen and progesterone have a complex relationship, and they should be in balance with each other. If oestrogen is high, progesterone will fall and if its levels end up too low relative to oestrogen, a pregnancy won't continue because you need progesterone to help the egg implant into your womb lining and stay there.

You might be wondering how you would know you have excess oestrogen and too little progesterone. Your body will give you clues in the form of menstrual irregularities, particularly heavy or irregular periods and PMS. Common female conditions like fibroids, endometriosis polycystic ovarian syndrome, and tender breasts are connected with oestrogen dominance.

If you are having anovulatory cycles as mentioned earlier, progesterone will inevitably be lower than oestrogen as it won't be produced in the second half of your cycle. The trouble is, high oestrogen can actually cause those anovulatory cycles.



Remember...

We can recommend functional tests to assess your personal hormonal picture, so we can see exactly the levels of the various hormones throughout your cycle.

Male Hormones

In the case of men, the major reproductive hormone is testosterone. Testosterone is needed for many functions all over the body, but in terms of making babies it's important for sex drive, semen production and maintaining an erection. So, many cases of infertility in males can be linked to low testosterone.

However, you might be surprised to learn men produce significant amounts of oestrogen too – around the same amount as is made by a woman at the start of her cycle. Oestrogen is needed by men for a healthy sex drive, to produce sperm and to maintain an erection. But testosterone and oestrogen should be in balance.

Men's oestrogen is produced in the testes, but it can be made out of testosterone, too. If this conversion happens excessively, oestrogen levels will climb too high relative to testosterone, and this leads to lowered libido, erectile dysfunction and slow sperm production. This is partly because when oestrogen is too high, it can actually block cell's receptors to testosterone, so it won't have as much of an effect.

Telltale signs of high oestrogen in men include man boobs, fat around the belly, fluid retention, fatigue and loss of muscle mass.

So as you can see, in the case of hormones, balance is the key for both men and women. Many factors can potentially lie behind unbalanced hormones, and we'll look at some of these in this book. Only by understanding the root causes of your hormone imbalance can appropriate steps be taken to put them right.

Helping to Make Babies

If you are one of the thousands of couples who've been unsuccessfully trying for a baby for at least two years, you might decide to embark on IVF.

Short for in-vitro fertilisation, the process starts by taking hormones to normalise your menstrual cycle, followed by drugs to stimulate your ovaries to release lots of eggs. Then eggs are extracted from the mother's or donor's ovaries and fertilised outside her body in a special laboratory before being replaced into the uterus. Progesterone will then be given to ensure the pregnancy continues by keeping the womb healthy for the developing foetus.

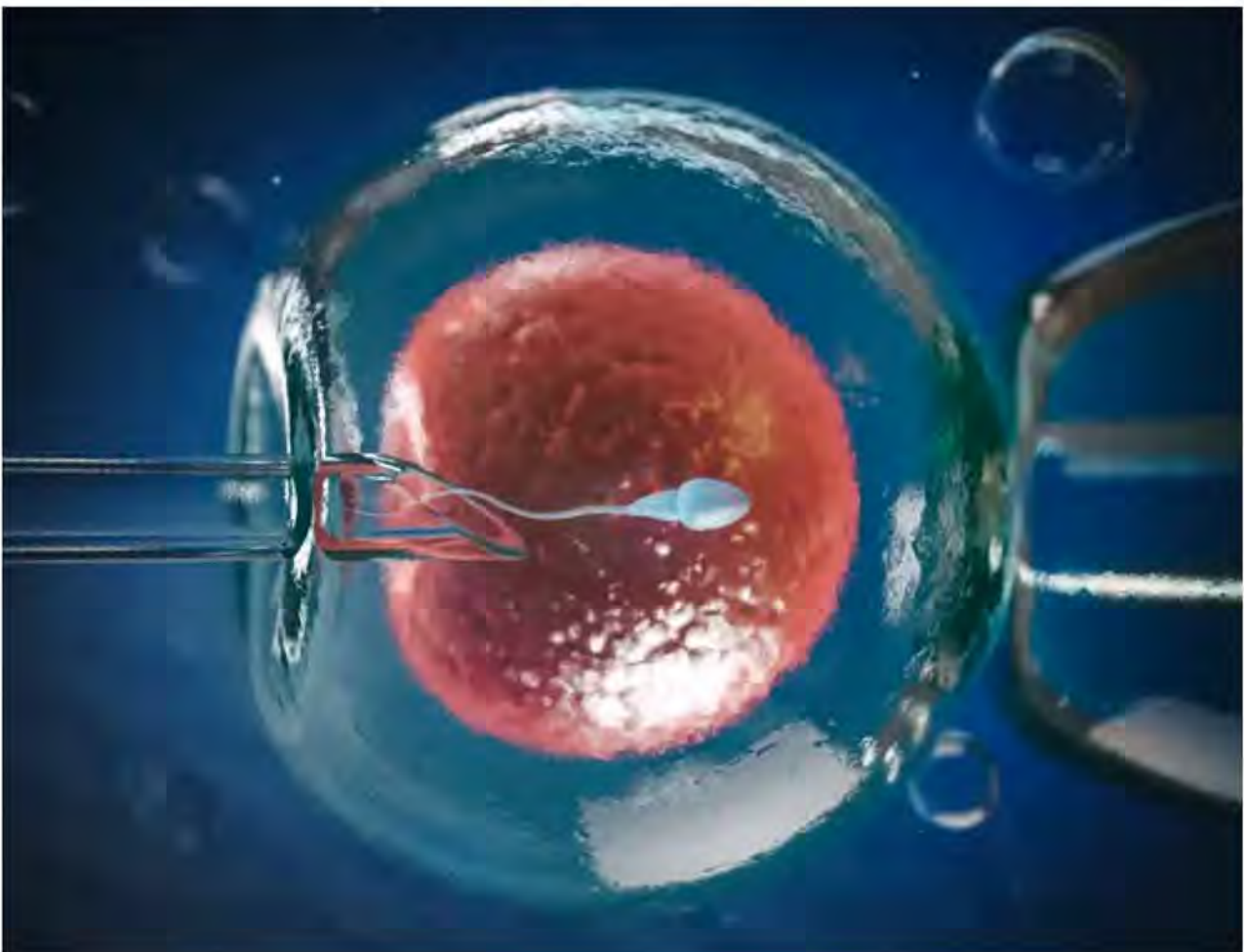
Often thought of as a last resort, IVF is an expensive and stressful process, and even in women under 35 years old, is only successful one-third of the time. This figure decreases to just 5% in 43- and 44-year-olds. The maximum age for IVF treatment on the NHS is currently 43 years. Often, couples need more than one IVF cycle before a successful pregnancy occurs.



But by preparing your body for IVF by maximising your health and correcting imbalances using some of the suggestions in this book, you can make sure you have the very best chance of success through IVF.

It makes sense that optimising the whole-body health of both partners prior to conception will improve the quality of both the egg and the sperm, as well as improving IVF outcomes.

First, we'll discover some of the many nutrients important for conception and maintaining a successful pregnancy. Even slight deficiencies in essential nutrients mean both male and female reproductive systems can't work as effectively as they're designed to.



Nutrients Needed to Make Babies



Zinc

Low levels of zinc are linked to male infertility. This mineral is needed for sperm production and ensures they're mobile enough to swim to their target. Semen is a very rich source of zinc, and without enough, testosterone levels fall.

In women, zinc is needed to keep ovaries healthy and hormones balanced. Boost your zinc levels by eating pumpkin and hemp seeds, chickpeas, lentils, cashews, red meat and cooked prawns.

Co-Enzyme Q10

This nutrient is needed to produce energy in your cells. Our bodies make co-enzyme Q10, but once we reach our twenties, production starts to decrease. As an antioxidant, it helps protect cells from the degenerative changes occurring with age. It has been found that women who took supplements of co-enzyme Q10 had eggs that aged more slowly than those who didn't take the supplements.

Sperm production is also a highly energy-dependent process. Co-enzyme Q10 supplementation has been found to increase both sperm count and motility.

We can advise if a supplement would be useful for you, as it isn't widespread in food.



Folate

Folate (the term used for the natural form of folic acid) is important to regulate cell division, so it's especially important during early pregnancy to make sure the foetus develops properly.

Low folate early on in pregnancy can lead to neural tube defects such as spina bifida, and women with insufficient levels of folate are more likely to miscarry. This is why the UK government recommends taking a folic acid supplement before and during pregnancy.

However, not all supplements are created equally – we can advise which are most suitable for you, and those your body will be able to absorb and utilise most easily. It's a good idea for a practitioner to assess whether any other nutrients would be best taken alongside folate to avoid any imbalances.

Folate is found in leafy green vegetables, beans, asparagus, sunflower seeds, broccoli, bananas and citrus fruits.



Vitamin B12

This nutrient is important for cell division and development of the foetus after conception. Studies have found low levels of B12 are linked with problems conceiving. It's best to take a vitamin B12 supplement if you are taking folate because the two nutrients are closely linked.

B12 is rich in fish, poultry and eggs. It's absent in a vegan diet, so in this case a supplement is advised.



Vitamin B6

This B-vitamin has long proved useful for supporting women with PMS, so it's not surprising it plays a role in fertility. It's crucial for balancing sex hormones, including those responsible for ovulation, and it plays a role in cell multiplication too. In one study, B6 supplements were found to increase progesterone levels, useful in the second half of the menstrual cycle. In men, vitamin B6 has been found to improve semen quality.

Vitamin B6 is found in chicken, fish, legumes, nuts, seeds, bananas, turkey and leafy greens.

It's worth mentioning here that B-vitamins, along with other nutrients such as zinc and magnesium, play an important role in a process called methylation.

It's a complicated cellular reaction helping to turn genes on and off, and it's essential for good health. Optimal methylation supports fertility, so problems with methylating can lead to lower chances of conception and poorer pregnancy outcomes.

If you're lacking in any of the nutrients needed to keep the wheels of methylation turning, or if your genetic inheritance means you have problems methylating, you may benefit from a supplement – we can advise if this applies to you.

Vitamin D

Sufficient vitamin D is needed for the embryo to implant successfully into the uterine lining.

Many women who seek IVF treatment are low in vitamin D. In men, research has found a link between insufficient vitamin D and low testosterone, poor semen quality and less mobile sperm.

Humans obtain most of their vitamin D from sunshine, meaning there's an epidemic of vitamin D deficiency in the UK, especially in the winter. This is why it's best to take a supplement of this nutrient, and this is recommended by the NHS.





Vitamin C

Studies have shown supplementing vitamin C can increase male sperm count, help sperm become more mobile, and prevent them from clumping together. In women, it plays a role in healthy ovulation.

Vitamin C is rich in fresh fruit and vegetables, particularly kiwis, peppers and strawberries, preferably raw or lightly cooked. This is because cooking at a high heat and boiling vegetables in water destroys vitamin C, as does storing fruit and vegetables for long periods.

Did you know Vitamin C cannot be made in our bodies?

Therefore we need to obtain it from our diet! This can be another simple yet effective solution on your fertility journey.

Vitamin E

Because it acts as a protective antioxidant, vitamin E can keep the lining of the uterus healthy, so it acts as a good host for the embryo. It also helps protect reproductive tissues and sperm from damage.

Vitamin E is rich in sunflower seeds, nuts, salmon and avocado.



Iron

Although it's well-known pregnant women are at risk of iron-deficiency anaemia, meaning iron supplements are recommended during pregnancy, what's not so understood is iron deficiency can increase the risk of having anovulatory cycles. If you've ever suffered from heavy periods, or you have any symptoms of low iron like tiredness, pale skin, hair loss, shortness of breath or constipation, you might want to have your levels checked.

Iron is rich in red meat, eggs, beans, spinach, pumpkin seeds, quinoa, broccoli and turkey.

To correct a deficiency, an iron supplement is recommended, but a natural form is best because many inorganic types of iron supplements can cause constipation. We can recommend a suitable supplement for you.

Omega 3

This is a type of essential fat, and it's in chronic short supply in modern diets. This is because it spoils quickly, especially if heated, so it's removed from processed foods. However, your body can't produce omega 3 from other types of dietary fat, so it's an essential nutrient.

As far as fertility is concerned, omega 3 fats help balance hormones, reduce inflammation and improve the ability of the egg to implant into the uterus. Research found 30- to 44-year-old women taking omega 3 supplements were almost twice as likely to conceive than women who didn't take a supplement.

Omega 3 is mainly found in oily fish like salmon, mackerel, trout and sardines.

But because of possible contamination with toxins such as metals including mercury, the UK Government recommends limiting consumption of fatty fish to two portions per week when pregnant. Omega 3 is also found in seeds and nuts like flax seeds, chia seeds, walnuts and pumpkin seeds.

However, the body needs to convert the oil found in seeds and nuts to another form before it can be used. Many factors can interfere with this conversion, including deficiencies in other nutrients, as well as genetics.



It's worth noting there are two types of omega 3 fat in fish, called EPA and DHA. They're both extremely beneficial, but DHA appears to be especially important for optimal sperm quality and development of the uterus throughout pregnancy, as well as being crucial for baby's brain development.

Your body can make some DHA from both EPA and seed oil omega 3, but the ability to do this declines with age. So if you've left it later to start a family, you might especially benefit from taking a supplement containing DHA.

Your practitioner will be able to advise on a suitable fish oil supplement that has been adequately screened for any pollutants and contains a suitable ratio of DHA to EPA. If you're vegan, supplements of DHA from an algae source are available.



We love using the analogy SMASH

Salmon

Mackerel

Anchovies

Sardines

Herring

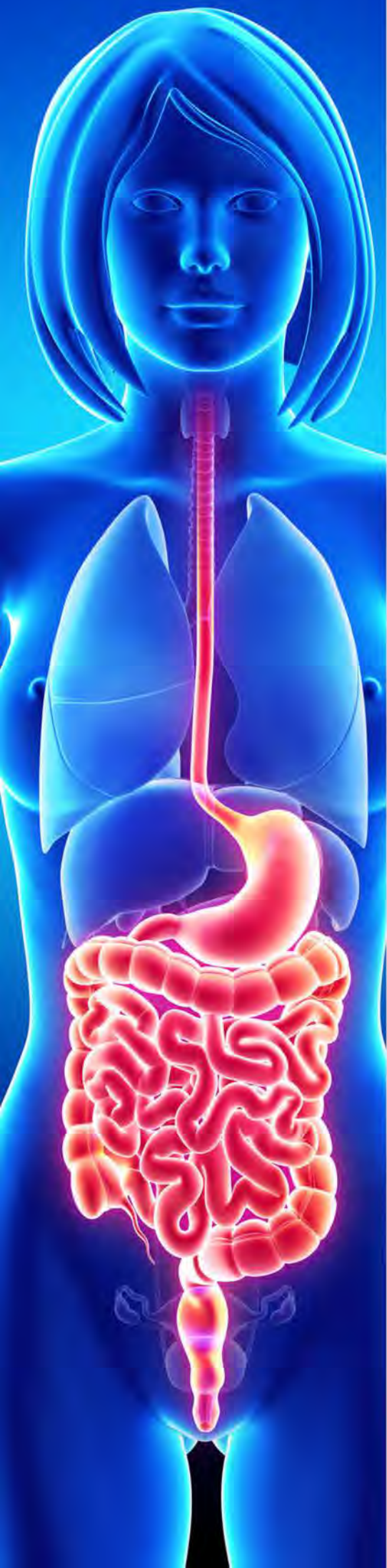
N-Acetyl Cysteine (NAC)

This is a type of amino acid your body would ordinarily obtain by breaking down protein foods. It's proved useful as a supplement in cases of infertility because of its ability to lower any inflammation in the reproductive system which is affecting fertility. It's also a powerful antioxidant, and can help to balance female hormones, as well as improving ovulation quality.

Foods containing NAC or the amino acid it's made from, called cysteine, include eggs, poultry, legumes, broccoli, garlic and onions. Unfortunately many modern foods are depleted in nutrients, because they've been grown in nutrient-depleted soils, or they've been transported or stored for long periods.

On the other hand, depending on your circumstances you may have an enhanced need for a particular nutrient – for example, if you don't have great gut health, you might not be absorbing nutrients from your food too well. To correct any deficiencies we can recommend a suitable programme of nutritional supplements to enhance your diet.

We've already briefly mentioned the effect poor gut health can have on your ability to absorb nutrients. We'll now go on to look at this in a bit more detail and discover some other ways your gut health can impact your fertility.



Gut Health and Fertility

Your gut is home to millions of microbes, collectively forming your microbiome. They have such a huge effect on health many practitioners now think of the microbiome as another organ. There are literally hundreds of strains of bacteria, fungi and viruses that could live in your gut, with many more yet to be discovered. They can broadly be categorised into those which are useful to your health and those which are generally harmful.

The incredible aspect about your microbiome is it's as unique to you as your fingerprint because it's shaped by your mother's microbiome, your diet, and your lifestyle. If unfriendly bacteria dominate your microbiome, this situation is called dysbiosis. You'll likely experience digestive symptoms if this is the case, but the effects of dysbiosis are much more far-reaching, as you'll discover in a moment.

As well as keeping your gut lining healthy so you're able to efficiently absorb nutrients, your gut microbes have other important roles in relation to your fertility.

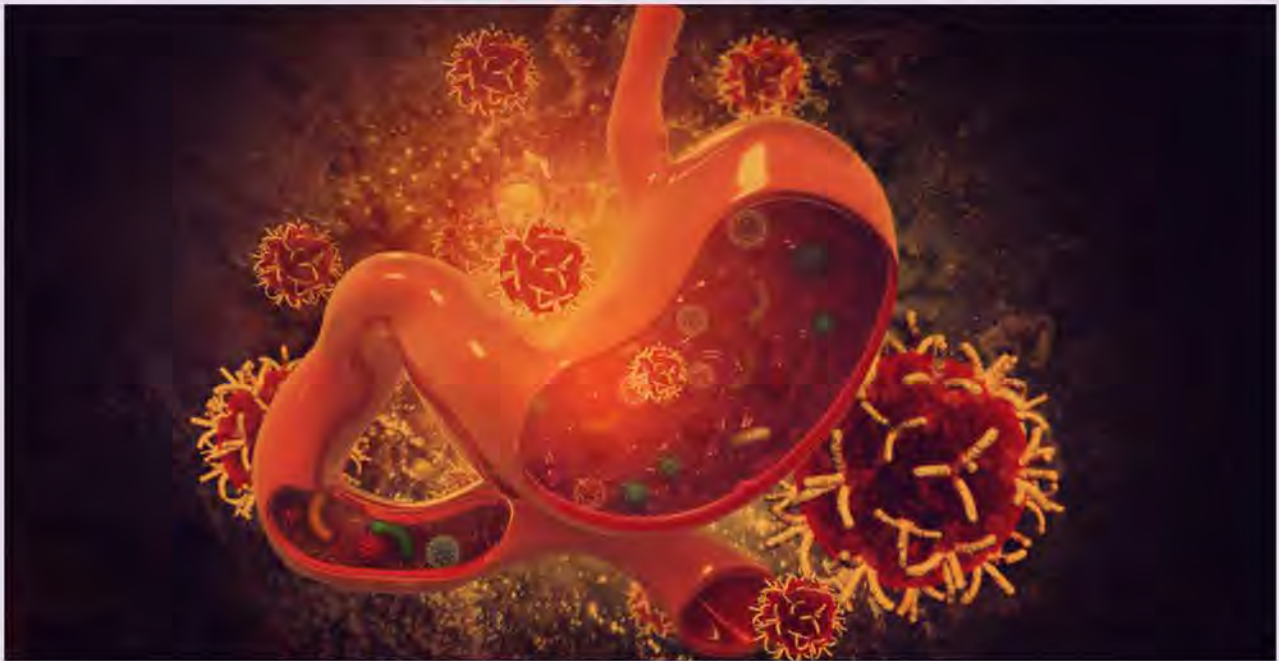
Your gut is the primary home of your immune system, so good gut health is crucial for properly functioning immunity. If you think about it, your immune system must be fine-tuned to allow a baby to develop in your womb, otherwise your body would identify the developing foetus as an invader and reject it.

When your immune system detects a potential invader, it initiates a chain of reactions to neutralise and expel it. This is a very necessary function and is designed to protect you. Levels of inflammation will sharply rise while the invader is dealt with.

However, this should naturally be short-lived, and subside once the threat is over. If your immune system keeps being provoked, for example by constant infections, environmental toxins, or problematic foods, or it perceives there is some sort of ongoing threat, the inflammation it produces will rumble on damage your body's cells in the process. This is known as chronic inflammation, and as well as being at the root of every chronic disease in existence, it plays a major role in infertility.

Sometimes, the immune system can even turn on the body itself, causing many familiar autoimmune diseases such as lupus, rheumatoid arthritis, multiple sclerosis and even hasimotos. Many cases of miscarriage are believed to have their roots in this type of issue with the immune system, while in some men, the immune system mistakenly attacks their sperm.

Your gut microbes play a major role in instructing your immune system how to function, but they also directly control inflammation themselves. They do this by releasing messenger substances either dampening down inflammation or boosting it. The specific strains of bacteria that are dominant in your gut release either these inflammatory or anti-inflammatory substances, depending on whether they are friendly or unfriendly bacteria.



Finally, your gut microbes have the job of converting hormones, especially oestrogen, into their various forms ready for detoxification. Out-of-balance gut microbes mean oestrogen levels can rise as they hang around in your body longer than intended.

Add to this if your gut transit time is long, in other words you suffer from constipation, oestrogen which is no longer needed and destined to be excreted tends to be recycled back into your bloodstream, again boosting levels. So, a healthy gut is incredibly important for hormone balance.

You can see from the above how important it is to encourage the correct types of bacteria in your gut. In fact, functional medicine practitioners can seem to be a little bit obsessed with your gut health, but it's with good reason!

How to Support a Healthy Microbiome

Reduce your Sugar Intake



Avoid sugar because unfriendly bacteria thrive on it. You might think quitting sugar is really hard, but you'll be surprised how quickly your taste buds recalibrate. Plus, once your microbiome becomes less unbalanced, those bad bugs will no longer send a message to your brain begging for sugar!

Increase your Plant Foods

Feast instead on a wide variety of plant foods. Not only are plants packed with those nutrients crucial for fertility, but they contain natural fibre alongside compounds called polyphenols, types of antioxidants. These are both used by your friendly bacteria as food sources and will help them to multiply and keep bad bugs in check.

One study found infertile men were twice as likely to eat fewer than five servings per day of plant foods. Plant foods contain plenty of antioxidants, too, which have the job of protecting your body's cells, including eggs and sperm, from damage. Another study found consuming plenty of antioxidants not only increased sperm count but also their swimming speed.



Fermented Foods are your Friends

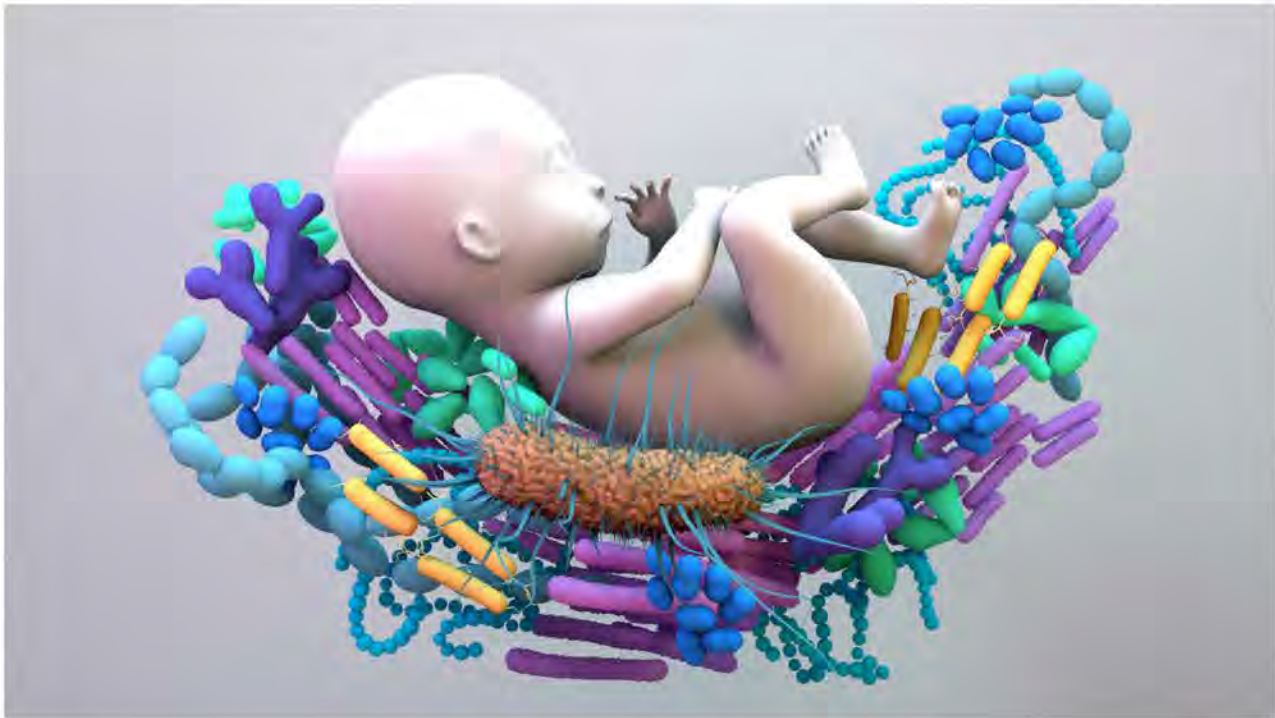


Include plenty of fermented foods in your diet. These contain a host of natural bacteria which create a favourable environment in your gut for good bugs to thrive. All the following count as fermented foods: kefir, kombucha, live natural yoghurt, sauerkraut, tempeh, kimchi and miso.



Although your gut microbiome can be thought of as the master microbiome, and in fact it's the one science so far knows the most about, you have other microbiomes in several other areas of your body, including your skin, lungs, oral cavity, endometrium and your vagina.

Your vaginal microbiome, much like your gut microbiome, is in constant dialogue with your immune system. Dysbiosis of this microbiome is connected with infertility, miscarriage, lower success through IVF, and vaginal health issues like itching and vaginosis.



Remember when we said you inherited the basics of your microbiome from your mother before birth? Well, your child will inherit their microbiome from your vagina, so for both your sakes it pays to ensure it's as healthy as possible.

Your vaginal microbiome can be affected by drugs, infections, use of certain soaps, hormone levels and smoking. But fortunately you can positively impact it too, using similar dietary measures recommended to improve your gut microbiome. Testing the health of your vaginal microbiome is a great start to assessing whether dysbiosis may be an issue for you.

Digestion begins in the mouth, so our oral microbiome plays a role here too. Oral microbiome dysbiosis has also been pregnancy complications, so we always recommend regular trips to the dentist throughout pregnancy, and if you want to test your oral microbiome we can help you with that too.

We'll now go on to consider some other factors linked with poor fertility in both men and women. The first of these is body weight.

Maintain a Healthy Weight

It's no news good optimal health is linked with a healthy weight, but it's particularly important for maximising your chances of having a baby. Latest statistics show over one-quarter of the UK population is obese, with a further 37% classed as overweight but not obese.

That leaves a meagre one-third of the population a healthy weight.

Being overweight is linked to lack of ovulation, infertility, miscarriage and complications in pregnancy. Overweight men were found to be 11% more likely to have low sperm counts, a figure rising to 42% in obese men.

Being overweight is connected with a condition of low-grade inflammation in the body, resulting in poor quality eggs. This inflammation is related to insulin resistance, which occurs when your body's cells stop responding to insulin.

Unfortunately, women may also be refused IVF treatment due to their BMI so this is something that we can support using nutritional and lifestyle medicine, supporting you by balancing your blood sugar levels without crash dieting which plays havoc on hormonal health and IVF outcomes.



Insulin's job is to allow the sugar in your blood to enter your body's cells. This process serves two purposes – your cells can then access the energy they need, and blood glucose is brought down to a safe level after food is eaten. If blood sugar remains high, it can damage cells, especially those lining your blood vessels. Insulin resistance occurs following constant peaks of blood sugar causing repeated releases of insulin. It's almost as if after a while, cells start to ignore the insulin, a little like you would ignore an advertiser that constantly bombards you with emails.

The problem is, because your cells aren't then receiving the energy they need, your body tells you to eat more, and craves sugary quick fix snacks. These just make the problem worsen in the long run. You'll tend to put on weight because your body will lay down whatever fat it can, thinking food is in short supply.

Insulin resistance leads to excess inflammation, while inflammation leads to insulin resistance in a vicious cycle. Women with insulin resistance are more likely to have problems with ovulation, lower egg quality, hormone imbalances and find it harder to conceive. In men, high insulin levels are linked with reduced sperm quality. Excess insulin encourages testosterone to be converted to oestrogen, leading to lower testosterone levels.

The key to overcoming insulin resistance is to first balance out the peaks and troughs in blood sugar.

Tips to Balance Blood Sugar



Focus on Whole foods

Eating whole foods with their fibre intact will naturally slow the rate their sugar is released into your blood. As you've seen, both these suggestions are great for your gut microbiome, too.



Remove Soft Drinks

Soft drinks often contain a sweetener called high-fructose corn syrup (HFCS). This has been seen to interfere with insulin signalling. Enjoy kombucha instead, a refreshing, slightly sparkling gut-friendly drink.



Good Quality Protein

Emphasise good quality protein sources like white meat, fish, pulses and lentils. Protein releases its energy far more slowly than carbohydrates, so it's gentler on blood sugar levels.



Reduce Caffeine

Reduce caffeine and alcohol because both peak blood sugar. If you start to balance your blood sugar, you will start to avoid the fatigue that comes with the peaks and troughs off the blood sugar rollercoaster, further reducing a craving for caffeine!



Get a Balanced Intake of Nutrients

Nutrients involved in blood sugar control include chromium, magnesium, zinc, vitamin D and omega 3 fats.

A Word about Belly Fat

You may be familiar with a certain type of fat which sits around your belly. Unseen, this fat coats your internal organs, too, and can even collect in people who appear to be slim. Known as visceral fat, it's different to the fat sitting under your skin. Not simply an energy store, it's metabolically active, releasing lots of inflammatory chemicals. Therefore, having deposits of this type of fat is particularly connected with the problems surrounding inflammation mentioned earlier.

Visceral fat seems to be especially prone to triggering insulin resistance and can create hormone imbalances. The trouble is, laying down this type of fat is encouraged by hormonal imbalances in another vicious cycle.

Although if you lose excess fat anywhere in your body, you'll decrease visceral fat, too, it can be annoyingly stubborn. Here are some tips to specifically bust belly fat:

- High-intensity interval training exercises have been seen to reduce visceral fat.
- Manage your stress because high levels of stress hormones encourage visceral fat to be deposited.
- Avoid drinks high in HFCS. As well as combatting insulin resistance, this can reduce visceral fat, too.
- Nurture a healthy gut microbiome, because certain unhealthy bacteria can predispose you to lay down belly fat.

Now we'll have a look at how your environment can impact your fertility.

Banish Those Toxins

There are a staggering amount of substances in food, water and air in modern life capable of causing harm to your body. These are collectively known as toxins, and they can seriously affect fertility.

Processed foods contain man-made chemicals like preservatives, colourings and flavourings along with modified fats and sugars, and unless they're organically produced, they'll contain traces of pesticides and herbicides too.

Then there are medicines given to farm animals, including antibiotics, and water-borne toxic metals and other contaminants making their way into fish. Add to this airborne toxins from industrial pollution you can't avoid inhaling, toxins in drinking water, and chemicals in personal care products absorbed through your skin.

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Toxins have a massive impact on your hormone balance.

One of the major issues is the vast amount of compounds present in the environment today which mimic oestrogen. These environmental oestrogens all contribute to creating overly high oestrogen levels relative to progesterone and testosterone in women and men. Examples of these oestrogenic compounds include BPA and phthalates, found in many plastics, including those used to store food, and PCBs, used in furniture manufacturing. There are also parabens, used as preservatives in foodstuffs and personal care products, and chemicals added to pesticides.

You've already seen how excess oestrogen can seriously affect both male and female fertility, so it's no wonder the world is facing an infertility epidemic.

It can feel extremely overwhelming when we start looking into the the toxins we are exposed to on a daily basis so working with a nutritional therapist can help you prioritise which toxins should be considered and when.

Although it's impossible to avoid your exposure to all these substances completely, you can greatly help by cleaning up your lifestyle with the following steps:

Eat Organic Where Possible

Yes, it's more expensive, so if you can't afford to completely go organic, keep in mind the worst offenders such as strawberries, lemons, bagged salad, grapes, peaches, nectarines and spinach.



Don't store or heat food in plastic

Oestrogenic particles from plastic can easily migrate into food or water, especially if it's an oily food like salad dressing or cheese. Use glass to store food instead and use a reusable glass bottle for water.

Invest in a Water Filter

Filter your water whenever possible. Many chemicals and plastics end up in our water, even after treatment so this is an extra precaution to help reduce toxin exposure.



Go Natural for Personal Care

Switch to chemical-free personal care, household cleaning, laundry and skin products. Remember what's put on your skin can easily reach your bloodstream.

A Helping Hand for Your Liver

This cocktail of toxins needs to be made safe and expelled from your body. This means your liver faces a mammoth task doing this every second of every day. It has hundreds of other jobs to do, so if it's overloaded with its trash-clearing role, it won't be able to perform its other tasks as efficiently.

One of your liver's most important jobs is to balance hormones. It's here hormones are transformed into forms your body can use, and cleared away when they're no longer needed.

It's no surprise, then, that an overloaded liver often leads to hormone imbalance, so to maximise your fertility you need to look after your liver.

Support your liver by:

- Avoiding processed foods and takeaways, as these are loaded with additives. A stir fry is as quick a supper as popping a ready meal into the microwave.
- Enjoying warm water and a squeeze of lemon sipped first thing in the morning. This can kick-start your liver for the day.
- Avoiding sweetened fizzy drinks containing HFCS. This sweetener has been linked with the accumulation of fat in the liver.
- Feasting on brassica vegetables. These are naturally supportive to the liver because they contain sulphur. Enjoy cabbage, broccoli, cauliflower, chard and kale. Use garlic and onions liberally, as they are also rich in sulphur.
- Switching from regular tea to green tea. It can help support liver health, particularly the detoxification of excess oestrogen.
- Including turmeric in your cooking. This spice is a real bonus as far as overall health is concerned, and it's great at supporting liver function.

Other Measures to Support Fertility

Stop Smoking

If you need any more motivation to quit, it's well-established smoking significantly impacts both male and female fertility, researchers believe by up to 60%!

Studies have found smoking damages a woman's ovaries, meaning they age up to five years faster than a non-smoker's, and it also affects follicle development, ovulation and embryo health. Not only this, but the effect is generational – the future fertility of the foetus can be affected by maternal smoking once the child reaches adulthood. Smoking in men negatively affects sperm quantity and quality.



Manage Stress

The negative effects of ongoing stress are many and varied. In relation to fertility, stress robs your body of nutrients including B vitamins, vitamin C and magnesium, it upsets the gut microbiome, and causes inflammation – the list goes on.

When your brain perceives you're in a stressful situation, various hormones are released to protect you. This is great and very helpful if you are in a short-term dangerous situation and need to escape from it rapidly. However, it isn't so great if stress is ongoing, like money worries or job stresses.

Perhaps the most significant effect however is that chronic stress steals away progesterone, throwing hormones out of balance. Stress affects male hormones, too, because men don't produce as much testosterone under chronic stress. Nature in her wisdom reduces the likelihood of conception during stressful events and into a hostile environment. The problem is, not being able to conceive is a stressful experience in itself.

Miscarriages are traumatic and a major cause of stress. Sadly, feeling stressed is a significant cause of miscarriage, with one study finding stress increased the risk of miscarriage by up to 60%. This is not surprising when you remember the effect stress has on reducing progesterone, with good levels of this hormone needed for a pregnancy to continue.

Although there's probably not a great deal you can do to deal with the stressful situation itself, there are steps you can take to change the way your body perceives and relates to the ongoing situation.

Here are a few great suggestions for reframing your body's response to stress:

- Deep breathing – this literally signals to your body that you are relaxed because this is how you naturally breathe when you are deeply at ease.
- Yoga
- Meditation
- Tai Chi
- Massage
- Major on stress-busting nutrients including magnesium, B vitamins and vitamin C.
- Green tea contains a substance called theanine, which helps the body deal with stress.



Prioritise Your Sleep

Lack of sleep is a significant stressor. Women who have too little quality sleep find it harder to get pregnant. Meanwhile, men produce most of their testosterone while they're asleep.

Research has found male shift workers sleeping irregular hours had lower sperm counts than those who worked regular hours.

As well as the amount of sleep, getting good quality sleep is important.

Here are some tips for a better night's sleep:

- Set an intention to establish regular bedtimes and waking up times (even at weekends!)
- Don't drink caffeine after midday – it takes an average of six hours to clear just 50% of caffeine from your system – and in some people, this is even slower. So, you could still have a significant amount of this potent stimulant hanging around by bedtime.
- Ditch screens for a couple of hours before bed. Screens emit light at the blue end of the spectrum. This suppresses the production of melatonin, the hormone that allows you to drop off to sleep. If you must check your phone, use a blue screen blocker in the evening.



Test Your Thyroid

Your thyroid gland releases hormones affecting cells all around your body. Issues with thyroid function are thought to be a factor in many cases of infertility because a struggling thyroid can create ovulation issues.

Thyroid hormones signal to the ovaries and womb lining, and so play a critical role in fertility. The majority of women suffering with thyroid issues also suffer from menstrual irregularities, especially a short luteal phase (the second half of the menstrual cycle), usually associated with low progesterone. Thyroid hormones are needed to release progesterone from the ovaries.

Common symptoms of low thyroid include feeling the cold, weight gain, dry skin and hair, constipation, aching muscles and low mood. You may not be aware you have a thyroid problem, as sometimes the symptoms are subtle and easily mistaken for other conditions. You may have even had a GP's thyroid function test and nothing adverse showed up. But you may still have an issue with your thyroid that can be affecting your fertility. Conventional thyroid tests use a very broad range, plus they don't reveal whether you're having problems converting and using thyroid hormones, or if your immune system is mistakenly producing antibodies to your thyroid gland.

We can recommend a suitable thyroid test if you'd like to test your levels.





Natural Support Through IVF

If you've unsuccessfully been trying for a baby for some time, you may have decided to try IVF. We can help you here, too, by ensuring your body is in the very best possible shape to play host to the developing embryo, and therefore maximising your chances of success.

Remember, though, imbalances in your body can take some time to correct, so the earlier you start to prepare your body for IVF the better. Preparation is key.

Looking at the very latest evidence-based research, we know certain nutrients have been found to increase the likelihood of IVF success. Let's have a look at some of these now, as well as the most important lifestyle adjustments you can make to prepare.

Selenium

Selenium is a potent antioxidant and has been seen to improve the outcome of IVF. Women who have too few antioxidants produce poorer quality eggs. In research, women who had previously failed to conceive had successful pregnancies after taking a supplement of selenium. This mineral is generally low in foods because it's in short supply in UK soils. Other useful antioxidants include vitamin E, crucial for protecting the health of the womb lining, and zinc.

Vitamin B12

Scientists found women undergoing IVF who were low in vitamin B12 were more likely to have fewer eggs retrieved during the process. Their eggs and resulting embryos were of lower quality, too.

Vitamin D

Research has revealed women with healthy levels of vitamin D are more likely to have a positive outcome from IVF. It seems to be necessary to allow the embryo to implant into the womb lining.

Ditch Alcohol and Caffeine

If you want to be at your most fertile, there's no room for alcohol, which as you've seen, can be devastating to fertility. In couples who both drank alcohol, IVF effectiveness was reduced by 21%, while alcohol consumption reduced the number of eggs that could be retrieved by an average of 13%. Men don't get off lightly, either. Fathers drinking just one alcoholic drink per day doubled the risk of a miscarriage in their partners.

Studies have shown the effects of alcohol consumption on fertility can persist for up to a year after quitting, so sooner is better when giving up.

Enjoy a Mediterranean Diet

Eating a Mediterranean diet means consuming abundant colourful fruit and vegetables, oily fish, seeds, fresh nuts, beans, legumes and olive oil. At the same time, you'll be eating less sugar, refined carbohydrates, processed oils and convenience food. Processed foods, as well as often being loaded with sugar, are devoid of nutrients, stripped of fibre and contain a host of chemical additives all needing to be processed by your long-suffering liver. Not only this, but during processing certain substances can be formed by sugars and proteins combining and these have been found to cause inflammation in the uterus lining, preventing an embryo from implanting there.

The Mediterranean diet is so great for optimal health because it contains such a wide variety of beneficial plant substances known as phytonutrients. They act as antioxidants and feed the good bugs in your gut. This way of eating also contains good levels of essential omega 3 fats and beneficial fibre.

Research has found women who ate a Mediterranean diet had more success through IVF, and this way of eating has been seen to boost male sperm count and significantly decrease the incidence of sperm abnormalities.



Balance Your Blood Sugar

You've already read about the devastating effect of disordered blood sugar on hormone levels, and the damaging effects of insulin resistance. One study measured a marker of too-high blood sugar levels over time, by looking at a substance called HbA1c. The researchers found in first-time mothers, the odds of falling pregnant decreased in line with increasing blood sugar.

Move!

Physical activity boosts blood flow to the pelvic area. This is important for ensuring the organs in this area are receiving sufficient oxygen and energy. Try bridges, squats and pelvic tilts. Habitually sitting for long periods can reduce blood flow to your pelvis, so get up, walk around and perform a few squats every half hour.



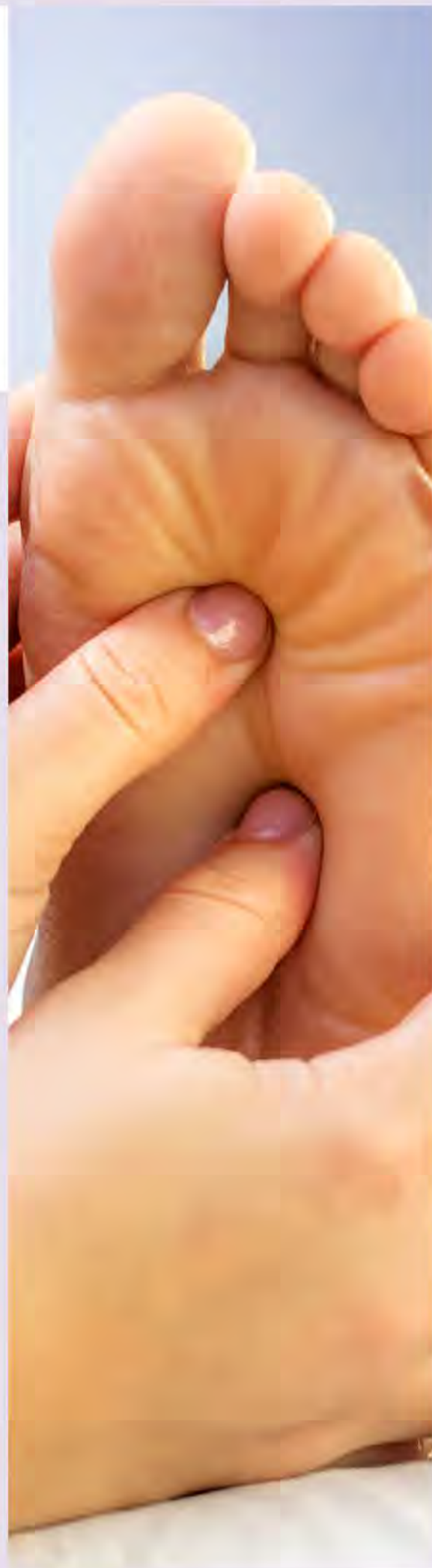
We can advise you about the best exercise to undertake while you're actually going through IVF.

Other useful tips for preparing your body for IVF include drinking plenty of water. Not only does staying hydrated help to flush toxins out of your body, but it's essential for maintaining healthy cervical mucus which is hospitable to sperm, along with a uterine lining welcoming to a fertilised egg. Men need to be sufficiently hydrated to produce mobile sperm.

It's a good idea to reduce sources of toxins in your home well in advance of any IVF treatment. A review of scientific studies found regular acupuncture treatments significantly increased the success of women undertaking IVF.

Acupuncture is a great stress reliever, too. The best results were seen when acupuncture was started at least three months before the commencement of IVF.

Finally, reflexology may be helpful to balance your cycle prior to your IVF journey.





Recipes to Support You During Conception, Pregnancy and Beyond

Targeted nutrition can really help to address many of the barriers that can get in the way of a successful pregnancy. Plus, making changes to your diet and lifestyle can only benefit your future self and family.

Finding these specific recipes can be hard, so here are a few to get your started that you can incorporate into your diet for breakfast, lunch, dinner and even dessert!

We hope that you enjoy them and if you make them at home, take a picture and share it with us on social media by tagging [@EmbracingNutrition](#) on Instagram or [@EmbracingNutritionUK](#) on Facebook.



Chocolate Chia Porridge

Ingredients

- 2 cups almond milk
- 1 tablespoon cacao powder
- 1 tablespoon almond/cashew nut butter
- 1 tablespoon chia seeds
- 1 teaspoon flaxseeds
- ½ cup of blueberries (optional)
- ½ tsp cinnamon powder
- 1 chopped date.



Cook Time
10 Minutes

Method

1. Place all of the ingredients in a glass jar, seal tightly and give it a good shake.
2. Let it sit in the fridge overnight.
3. If the mix is too thick by morning add more almond milk depending on the desired thickness of your favourite porridge consistency.

Extra Tips

- Add a tablespoon of Greek Yoghurt for a creamy protein hit.
- Serve with a sprinkle of chopped almonds or pumpkin seeds for an extra fatty acid crunch.
- Add 1 Teaspoon cacao nibs for extra antioxidants & magnesium.





Veggie Packed Frittata

Ingredients

- Butter, 1 tablespoon
- Mushrooms, Fresh, ½ cup
- Cherry Tomatoes, ½ cup
- Broccoli, 1 cup chopped
- Egg, 8 large



Cook Time
15 Minutes

Method

1. Preheat the oven to 180 degrees.
2. Crack the eggs into a bowl and whisk.
3. Steam the broccoli for around 3 - 4 minutes.
4. Place butter in an ovenproof frying pan over a medium heat on the stove top, then add in the chopped mushrooms and cherry tomatoes, fry until the mushrooms are golden brown, then remove from the pan.
5. Place the whisked eggs into the frying pan you've just used, add a little more butter if needed, then sprinkle over the tomatoes, mushrooms, steamed broccoli. Let this cook on a low to medium heat for 5 or so minutes, then move to the oven under the grill for a further 5 - 8 minutes or until the egg is cooked through.

Extra Tips

- Serve with a simple side salad of seasonal green leaves and some avocado.

Walnut Hummus

Ingredients

- 1 x 400g can chickpeas, drained
- 1 garlic clove
- 1 handful walnuts
- ½ tsp harissa paste
- ¼ tsp turmeric
- Juice of ½ lemon
- 1 tablespoon apple cider vinegar
- seasoning
- 150-200ml extra virgin olive oil
- 1 tablespoon tahini



Prepare Time

10 Minutes

Method

1. Place the chickpeas, garlic and walnuts in a small blender and blend until broken down.
2. Add the remaining ingredients and blend until nearly smooth.
3. For a little looser consistency add a tablespoon or more of water then blend again.
4. Serve with freshly chopped crudité's.

Extra Tips

- Serve as a snack with some flaxseed crackers/oatcakes or add to main meals such a salad or roast vegetables.



Antioxidant Packed Prawn Curry



Prepare Time
10 Minutes



Cook Time
50 Minutes

Ingredients

- 450g large prawns, peeled.
- 1 onion, finely chopped.
- 2 cloves garlic, minced.
- 1 red bell pepper, chopped.
- 1 courgette, chopped.
- 1 handful cherry tomatoes
- 1 broccoli or cauliflower, broken into florets.
- 1 can coconut milk
- 2 tablespoons curry powder
- 1 teaspoon cumin
- 1 teaspoon coriander
- 1/2 teaspoon turmeric
- Salt and pepper to taste
- Coconut oil for cooking
- Cashew nuts



Method

1. Add chopped vegetables (pepper, onion, courgette, and broccoli/cauliflower) to a large roasting pan.
2. Add 1 large tablespoon of coconut oil into the pan and stir in the garlic, onion and grated ginger.
3. Roast in the oven for 30 mins @ 200 C.
4. During this time, blend 1 can coconut milk with the curry powder, cumin, coriander, turmeric, salt, and pepper.
5. Remove vegetables from the oven, add in the coconut curry blend, stir well to coat the vegetables.
6. Return to the oven and allow the mixture to cook for about 10-15 minutes, or until the vegetables are tender.
7. In a pan, sauté prawns with cherry tomatoes in butter for about 5-7 minutes until the prawns turn pink.
8. Remove roasting pan from oven and add in the prawns and tomato mix.
9. Taste and adjust the seasoning if necessary. If you like it spicier, you can add some chili powder or chili flakes.
10. Serve the prawn and vegetable curry hot over cooked brown rice or quinoa.
11. Garnish with roasted cashew nuts.
12. Enjoy your nourishing prawn and vegetable curry!

Nourishing Butternut Soup



Prepare Time

10 Minutes



Cook Time

50 Minutes

Ingredients

- 1 medium-sized butternut squash
- 1 tablespoon coconut oil
- 1 red onion, chopped.
- 2 cloves garlic, chopped.
- 1 medium carrot peeled and chopped.
- 1 cup cooked chickpeas
- 4 cups vegetable broth (or bone broth for extra gut healing benefits)
- ½ teaspoon ground cinnamon
- ½ teaspoon turmeric
- ¼ teaspoon ground nutmeg
- Salt and pepper, to taste





Method

1. Preheat your oven to 200°C.
2. Peel and cut the butternut squash into small chunks. You can save the seeds for toasting as a garnish if you like.
3. Place the squash chunks into roasting pan, add 1 tablespoon coconut oil, and season with turmeric, cinnamon, nutmeg salt and pepper.
4. Add 1 cup chickpeas to the roasting pan.
5. Roast the squash and chickpeas in the oven for about 45 minutes.
6. While the squash is roasting, add the chopped onion, garlic, and carrot to a pan and sauté for about 5-7 minutes, or until the vegetables start to soften.
7. Once the butternut squash is done roasting, remove it from the oven and let it cool for a few minutes. Then add it to the pot with the sautéed vegetables.
8. Pour in the vegetable/bone broth.
9. Bring the mixture to a boil, then reduce the heat to low and let it simmer for about 15-20 minutes, or until all the vegetables are very tender.
10. Use an immersion blender to carefully puree the soup directly in the pot until it's smooth and creamy. If you don't have an immersion blender, you can carefully transfer the mixture to a blender in batches and blend until smooth.

Extra Tips

- Serve the butternut squash soup hot, garnished with your choice of toasted pumpkin seeds, a drizzle of plain yogurt, or a sprinkle of fresh herbs.



Omega Rich Salmon Salad + Anti-inflammatory Dressing

Ingredients for the Salad

- Mixed leaves
- Sun-dried Tomatoes, ½ cup
- ½ Avocado
- ½ cup cooked lentils
- Walnuts, handful
- Pumpkin seeds, 2 tablespoons
- Smoked Salmon 1 pack.



Prepare Time
5 Minutes

Method for the Salad

1. Place walnuts in a roasting pan and grill for 3-5 minutes until golden brown.
2. Assemble the salad by adding all ingredients in a bowl.
3. Top with the salmon, dress with anti-inflammatory salad dressing.



Ingredients for the Salad

- 3 tablespoons extra virgin olive oil
- 1 tablespoon Apple cider vinegar (Raw and organic with the mother)
- 2 teaspoons agave syrup/ raw honey
- 2 teaspoons turmeric powder
- 1 teaspoon smooth Dijon Mustard
- Large pinch of Himalayan salt
- Black pepper to taste

Method for the Salad

1. Mix all ingredients together.
2. If you want a creamier consistency, you can add the ingredients to a blender.

Extra Tips

- I usually prepare this mixture in the salad bowl before adding salad ingredients for ease.
- Tasty Additions include toasted Pine nuts or pumpkin seeds to give your dressing some extra crunch
- Turmeric is an incredible anti-inflammatory.
- Curcumin, the main active ingredient in turmeric is what brings out the powerful anti-inflammatory effects due to the strong antioxidant components. To increase absorption, eat turmeric with healthy fats such as olive oil in the dressing, avocado, eggs, or mixed with coconut oil to roast vegetables. Add a shake of pepper to increase absorption.

Natural Solutions to Support Fertility and Your IVF Journey

Trying to conceive can often seem like a lonely journey, and IVF a stressful one, particularly if it doesn't succeed first time around. But now you have read about how important it is to nourish your body with the best foods and to correct your body's imbalances, you can see there is so much you can do to maximise your chances of becoming pregnant, and of IVF being successful.

Functional medicine believes everyone is unique, with a different health history, genetic inheritance and lifestyle, and this means your health is unique, too. The only way to achieve optimum health for you and your future baby is by recognising these individual differences. Every part of you is interconnected, too, with any issues with fertility having their origin in imbalances in one or more of your body systems.

But you needn't go it alone. We will take time to build up your personal picture to answer the question of why conception and pregnancy aren't happening. We'll back this up with functional tests to measure exactly what is occurring inside your body, be they hormone imbalances, nutrient deficiencies, gut, vaginal or oral dysbiosis, ill-health or toxin overload.

When this detailed knowledge about you and the root causes of your health issues are understood you will receive personalised - never 'one-size-fits-all' - dietary and supplement recommendations along with positive lifestyle choices to maximise your health. These will include foods to enjoy, nutritional supplements, herbs and lifestyle hacks. The aim will be to support your body through conception, pregnancy, birth and beyond, or through your IVF journey if this is your path.

Let us help you create a healthy baby. Contact us today to find out more.



Visit

www.embracingnutrition.co.uk

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Jo Gamble

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- Toxicity
- & more!



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- Endometriosis
- Hormonal Imbalance
- Women's Health in areas of stress resilience; burnout/ adrenal fatigue; cognitive health; depression and anxiety.

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