



Boosting Your Natural Fertility

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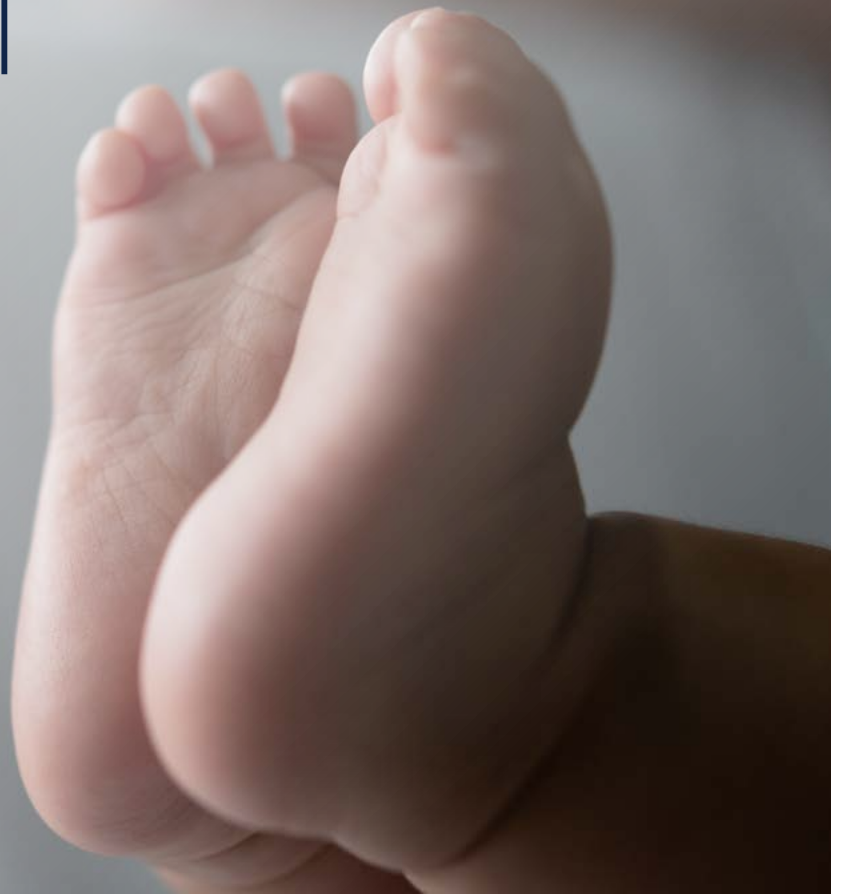


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Fertility 101



The likelihood of conception is highest in the first few months of having unprotected sex, which is why many people seem to fall pregnant quickly. In fact, around 80% of couples conceive in the first six months of attempting pregnancy and the probability of pregnancy is greatest in the first three months.



It's well known that fertility declines with maternal age across all countries and cultures – no matter how healthy you are there comes a point where ovarian reserve (quantity and quality of eggs) declines and it becomes less likely you will have a viable and ongoing pregnancy.

Your fertility peaks in your 20s compared to in your 40s, where fertility can be decreased by half. In men, semen parameters also decline after the age of 35, however, male fertility isn't appreciably affected before the age of 45.

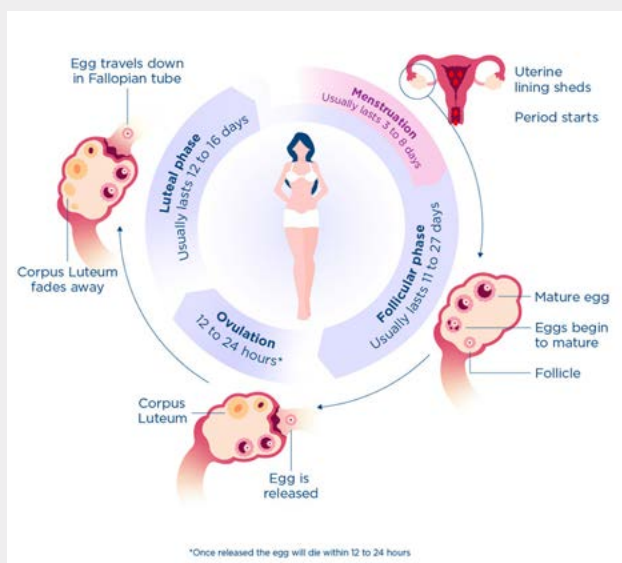
We advise all patients that if you are under 35 and have been trying unsuccessfully for a year to seek medical advice, and if you're over 35 to seek medical advice if you have not been successful after 6 months.

Menstrual Cycles Explained

Your menstrual cycle begins on the first day of your period and ends on the first day of your next period.

The menstrual cycle is made up of four phases - menstruation, the follicular phase, ovulation, and the luteal phase. Your reproductive system is regulated by two hormones: the follicle-stimulating hormone (FSH) and the luteinizing hormone (LH).

FSH stimulates the follicles while LH triggers ovulation. These two hormones travel down to the ovaries where levels of oestrogen and progesterone are regulated. The hormone oestrogen rises 4-5 days before ovulation. Progesterone level goes up after ovulation, preparing the body for implantation.



Follicular Phase

The follicular phase starts your menstrual cycle. This phase starts on the first day of your period and lasts until the day of ovulation and can range from 7-14 days.

Your brain releases GnRH which triggers your pituitary gland to

release FSH which stimulates the growth of many eggs. The FSH travels in your bloodstream to the ovaries and a dominant follicle is developed into a mature egg.

The dominant follicle then starts producing oestrogen which rises 4-5 days before ovulation and reaches its peak approximately one day before ovulation.

Ovulation

The oestrogen peak is the signal that tells the brain an egg is mature. The brain then releases the luteinising hormone (LH), which helps with final maturation of egg and triggers the ovarian follicle to release the egg into the fallopian tube. This process is ovulation. Ovulation often happens 12-24 hours after the LH surge.

Working Out Your Peak Fertility

The use of fertility-awareness methods, such as ovulation detection kits and cervical mucus monitoring, has been shown to increase the probability of conceiving in each menstrual cycle.

For most women with regular cycles, conception is possible in the 6 days up to ovulation, but most studies show that the highest chance is in the two days prior to ovulation. However, timing when ovulation is occurring can be tricky. There are four main methods each with their own pros and cons:

- **Calendar**
- **Cervical mucus monitoring**
- **Basal body temperature tracking**
- **Ovulation predictor kits (OPKs)**

Calendar method



The calendar method is based on the length of the menstrual cycle. It works by considering that the average luteal phase (between ovulation and menstruation) is 14 days, so for a 28-day cycle, ovulation is on day 14. For women with a 30-day cycle, it is day 16, and so on.

However, only 14% of people with a 28 day cycle will ovulate on day 14. The luteal phase varies by length in any cycle, so it's best to supplement with other methods such as cervical mucus monitoring and taking your basal body temperature.

Cervical mucus monitoring

A simple test of ovulation is to track changes in your vaginal secretions. The volume of cervical secretion increases in the 5-6 days preceding ovulation and reaches its peak 2-3 days before ovulation.

The probability of conception is highest when the mucus is slippery and clear. A study of 1681 cycles found that pregnancy rates were highest (approximately 38%) when intercourse happened on peak mucus day and was much lower (15-20%) on the day before or after the peak.

This is a cheap and easy way to track changes in your cycle and evidence shows that if you chart your mucus every day for 3-6 months and understand your basic infertile pattern (BIP), 85% of people will fall pregnant with 'perfect use' and optimal timing of intercourse with this method.

Basal Body Temperature



Basal body temperature is the body's temperature at rest. Reproductive hormones have a measurable impact on the body's temperature and after ovulation, there is a rise in the hormone progesterone.

This rise in progesterone causes a very slight (0.3° -0.6°C) increase in temperature.

To monitor BBT, it is recommended to use a special basal thermometer that measures tenths of a degree. BBT should be taken immediately after waking up and before sitting upright. BBT should be charted daily on a paper or electronic chart with a line connecting the temperatures.

Unfortunately, on its own BBT tracking it is not a reliable ovulation monitoring method mainly as it's not easy to do reliably over time, and also because it changes after ovulation has already happened. On top of this, interrupted sleep, fever, medical conditions, stress, and alcohol can potentially hide the BBT increase that is a sign of ovulation.

So, our conclusion is while there is not harm in doing this, it's probably not really going to help you determine when you ovulate.

Ovulation Predictor Kits (OPKs)

One increasingly popular method is the use of ovulation predictor kits (OPKs).

There are two different types of home ovulation prediction tests/kits that can be purchased over the counter.

OPKs either identify luteinizing hormone (LH) or LH and the oestrogen metabolite, estrone-3-glucuronide (E3G) in urine.

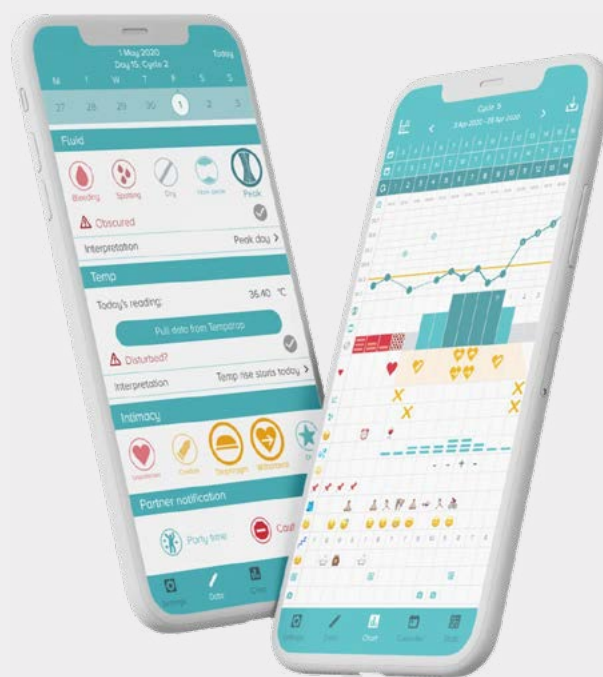
Many studies have shown that these are good for detecting the mid-cycle LH surge.

However, ovulation can occur anytime two days after that so are of limited use for detecting the peak window.

One study of almost 1000 women showed a maximum efficiency of 21% and false positives were shown in 7% of cycles in another large-scale test.

Used in addition to another method they can be helpful, but on their own, they are of limited use so they shouldn't be relied of as the sole method of detecting ovulation.

Smart Phone Apps



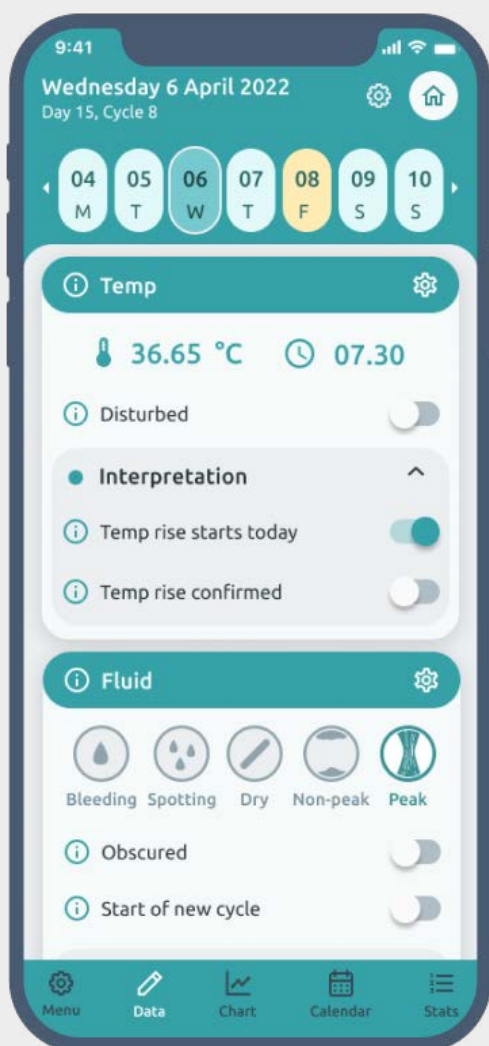
Apps have revolutionised fertility tracking and can be empowering and allow women to get to know their body and fertility cycles more intimately.

A word of caution is that they suffer from the same challenges as 'old school' calendar method above, namely that if cycles aren't always regular, the algorithm will give a poor result.

Some newer smartphone apps don't just track the menstrual cycle to work out the most fertile days, but also allow the user to add data such as basal body temperature and the results of an OPK to be added.

These should give better results IF their algorithm includes this information for its predictions (many don't!). They also collect and share data to 3rd parties which isn't ideal.

However, there is an app that has been created by natural fertility educators in the UK called 'Read Your Body'. In our view this is the most reliable app on the market right now and does not collect or share any of your data.



As with all tracking methods, if you have not become pregnant after a year or are over 35 and have been trying for 6 months, we recommend you see a fertility doctor. If you are having irregular or no periods, see a doctor sooner as it's better to find out earlier whether you have an infertility diagnosis.

Stopping Contraception

When you decide to begin your journey to parenthood the first and most obvious step is to stop using contraception. Depending on what type of contraception you've been using there are certain things to take into consideration.

If you've been using a barrier method such as condoms, cervical cups, or a non-hormonal copper IUD then you can begin trying right away.

If you are using hormonal contraception (the pill, Depo Provera injection, or an IUD) you should be aware that it takes time for ovulation to return to normal, and it may take a bit longer to become pregnant.

If you are over the age of 35 we recommend that you seek the advice of a fertility doctor rather than wait for your periods to return to normal.

Optimal frequency of intercourse

A widely held misconception is that frequent ejaculations decrease male fertility.

In fact it's best to ejaculate every day or every other day as it has been found that abstinence intervals

greater than 5 days may adversely affect sperm counts. A retrospective study that analysed almost 10,000 semen specimens observed that in men with normal semen quality, sperm concentrations and motility remained normal, even with daily ejaculation.

Even more surprisingly, in men with low sperm count, sperm concentration and motility may be highest with daily ejaculation.

Abstinence intervals generally also do not appear to affect sperm morphology (shape) however, after longer abstinence intervals of 10 days or more, semen parameters begin to deteriorate.

Positions and practices



First let's dispel some myths. We can categorically say that sexual position doesn't matter so you don't have to lie down or have your legs in the air!

Sperm deposited at the cervix can make their way to the fallopian tubes in as little as 2 minutes. Orgasm is known to promote the transport of sperm but is not a requirement and has no effect on fertility.

Interestingly, it has been found that sperm make their way via the fallopian tube corresponding to the dominant mature follicle - not the other one. (Another myth is that certain positions affect the gender of the baby – that isn't true either!)

A word of warning on lubricants

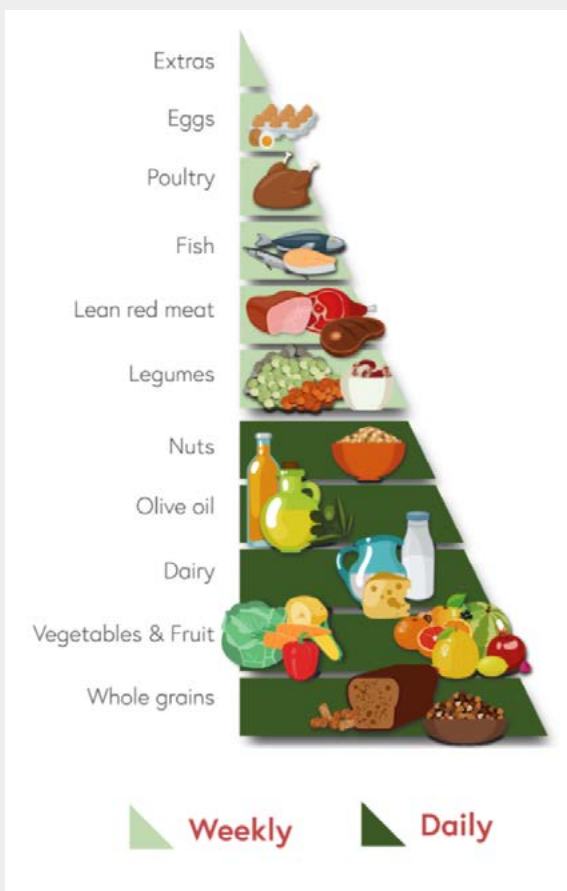
Some personal water-based lubricants may decrease fertility as they slow down sperm motility by 60% - 100% so check the label and make sure it is described as 'fertility friendly'.



Your Diet and Fertility



Most studies agree that the ‘mod Med’ diet is helpful in supporting fertility. Fertility rates are lower for women who are very overweight or very underweight so maintaining a healthy BMI is important. However, there is no perfect “fertility diet” that needs to be followed.

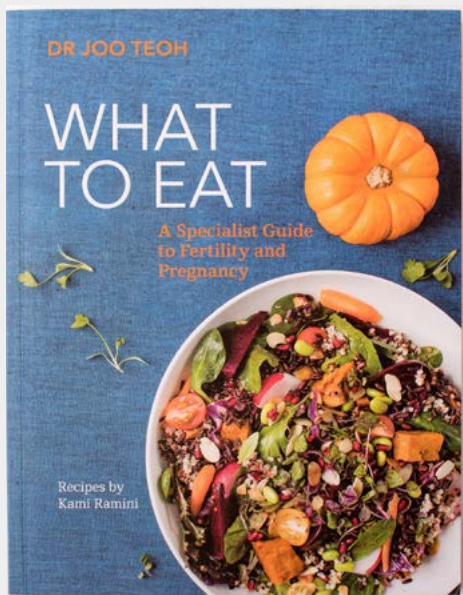


You should be aware that seafood which contains mercury can lead to infertility if consumed in very high amounts, but most studies concur that a “mod Med” (modified Mediterranean) diet is helpful in supporting fertility as it is:

- **Abundant in plant foods including fruits, vegetables, legumes, nuts, and seeds**
- **High in monounsaturated fat such as olive oil**
- **Low in saturated and trans fats**
- **Has small amounts of poultry and very little red meat**
- **Includes fish and especially oily fish**
- **Has small amounts of dairy – principally natural yoghurt and small amounts of cheese**
- **Low in sugar with sweetness coming mainly from fresh fruit and dried fruit**
- **Has small amounts of poultry and very little red meat**

Ultra-processed foods and beverages are best avoided.

An excellent resource for more detail and some great recipes, is the book **“What to Eat by”** by Dr Joo Teoh, as specialist in Fertility, Obstetrics, and Gynaecology. You can purchase a copy from the Flinders Fertility reception too!



The Importance of Dietary Folate and Iodine

Folate and Iodine are crucial for a healthy pregnancy and it's important to ensure sufficient uptake prior to conception as well as during pregnancy.

Folate, aka Vitamin B9, occurs naturally in foods and is necessary for healthy growth and development. It is particularly important to the healthy development of babies in early pregnancy to reduce the risk of neural tube defects such as spina bifida and anencephaly.



The most folate-rich foods are legumes (beans, peas and lentils) and leafy green and other vegetables.

	µg/Cup	% Daily Value
Edamame	482	121%
Borlotti Beans	366	92%
Lentils	358	90%
Chickpeas	282	71%
Asparagus	268	67%
Cooked Spinach	263	65%
Cooked Broccoli	168	42%
Cooked Beetroot	136	34%
Avocado	163 in each	41%
Mango	71	18%

Folic Acid and Folate Supplements

While there are many great dietary sources of folate, it is so important for the development of your baby’s brain and spinal cord that all professional medical bodies recommend to take folate supplements at least one month prior to conception and ideally for at least the first three months of pregnancy in addition to a healthy diet.

This can be in the either a folic acid supplement (which is the man-made equivalent of folate) or methylfolate, (aka MTHF) which are both more easily absorbed in the body.

For most women, 500µg (micrograms) daily is recommended and the majority of over-the-counter pregnancy formulations in Australia are formulated with this amount (though always check the label just in case).

If you have the MFTHR gene mutation, have type 1 or 2 diabetes, or have a high BMI, it’s very likely that you will need a higher dose of up to 5,000µg (ie 5mg) which your doctor can prescribe for you. Some studies have identified that certain ethnicities may have a need for higher folate supplementation too - so if you are of Pasifika or Latin American descent you should consult a doctor about what dosage is appropriate.

The Importance of Iodine

Iodine is an essential chemical component of thyroid hormones which regulate ovulation, as well as metabolism and weight management - all important factors in improving your chances of getting pregnant naturally.

In Australia it is recommended that pregnant women get 220µg of iodine per day and take a supplement of 150 µg.

Most foods are relatively low in iodine however seafood is a good source of iodine, as well as eggs and some dairy products. Since 2009 iodised salt has been used in all commercial breads (except organic) to help improve dietary iodine intake.

Once pregnant, iodine is particularly important for a developing fetus as the thyroid hormone is also involved with brain development. A deficiency in iodine during pregnancy can cause learning difficulties and stunted growth and affect the intelligence of the baby.

Sources of dietary iodine

- **Sardines:** 75.8 µg
- **Bread made with wholemeal flour:** 69.7 µg
- **Poached egg:** 57 µg
- **Red Snapper:** 56 µg
- **Natural Yogurt:** 25 µg



Prenatal Supplements



While it's best to get your vitamins, minerals, and antioxidants from your food rather than supplements, we know that this isn't always easy so there are many prenatal vitamin formulations on the market and depending on your overall health you may require some additional supplements.

[Check out this article on vitamins that support fertility and speak to your GP or fertility doctor for advice.](#)

Lifestyle changes to Improve Fertility



Caffeine

Most studies show that moderate caffeine consumption (i.e. 1–2 cups of coffee per day or its equivalent) before or during pregnancy has no apparent adverse effects on fertility or pregnancy outcomes.

However, high levels of caffeine consumption (considered as more than 5 cups 2–3 cups per day) may increase the risk of miscarriage. Caffeine consumption seems to have no effect on semen parameters in men.

Smoking

Women who smoke are significantly more likely to be infertile than non-smoking women.

It almost goes without saying that smoking has adverse effects on fertility and an analysis of over 10,000 women found they were significantly more likely to be infertile than non-smoking women.

There are several reasons suggested for this, one being that smoking increases the rate of follicular decline, and indeed, menopause occurs on average 1–4 years earlier in smokers than the average. Most importantly, it has been shown that smoking is also associated with an increased risk of miscarriage.

For men, it isn't quite as clear cut, but smoking has been shown to decrease sperm density and increase abnormalities in sperm morphology.

Although data can't conclusively demonstrate that smoking decreases male fertility, we know that it causes DNA fragmentation which can cause problems with embryo development.

Alcohol

Unsurprisingly, studies show that alcohol consumption has a detrimental effect on conception and strong evidence that drinking during pregnancy causes fetal alcohol syndrome.

For men, heavy consumption of alcohol has been shown to lower sperm counts, decrease sperm motility, and affect sperm morphology and serum testosterone levels. Partners of men who drink heavily take longer to get pregnant than those who drink less.

Consumption of alcohol is best avoided if you are trying to conceive, and during pregnancy you should cease altogether as there is no known safe amount of alcohol during pregnancy.



Cannabis

Men who smoke cannabis have been reported to have 29% lower sperm counts.



Men who smoke cannabis have been reported to have 29% lower sperm counts than those who have never smoked it, and it also seems to be dose dependent i.e. the more consumed the higher the risk.

The reason that cannabis seems to have such a big effect on fertility is that it does not just have a chemical that inhibits sperm motility, but it also interferes with the chemical reaction required for sperm to penetrate the outer 'shell' of the egg.

One study found that the prevalence of infertility was increased in ovulatory women who reported using cannabis so we recommend that women who are pregnant or may become pregnant should discontinue cannabis use because of the adverse effects of smoking and potential concerns for impaired fetal neurodevelopment.

Methamphetamines

In men, methamphetamine use interferes with fertility in many ways. Prolonged meth abuse reduces sperm count, and damages the sperm which remain.

Sperm motility (ability to swim) is reduced, and there is significant DNA damage to the sperm that do retain motility. Meth also reduces blood testosterone levels, as well as inhibits the balance of hormones that maintain healthy reproductive function. All of the effects which have been studied were dose-dependent meaning that the more meth used, the stronger the effects.

Meth use in pregnancy

Use by women during pregnancy is causes harm to the fetus and the mother alike.

Factors that pose a threat to both can include higher chances of hypertension, placenta previa, placental abruption, amniotic infection, and intrauterine fetal death.

There are a variety of birth defects that can result from meth use. The most common issues are premature birth, small for gestational age (SGA), and low birth weight. Additionally, cognitive deficits and mental health disorders are common in infants born to mothers who used meth during pregnancy.

Anabolic Steroids

Anabolic steroids are natural or synthetic versions of testosterone and that if abused can cause short and long term effects on sperm production and testicular function.

A study that observed anabolic steroid use showed that intake of synthetic testosterone, like anabolic steroids, inhibits the secretion of both two key fertility hormones - FSH and LH - so the body is unable to properly produce sperm.

As a result, men taking anabolic steroids saw quality parameters, such as sperm count and concentration, fall dramatically.

In most cases, these negative effects on sperm production were temporary, and could be reversed if the individual stopped taking anabolic steroids. Sperm quality parameters could be expected to normalize after 4 to 12 months of ending steroid use.

However, in some cases, patients experienced up to 5 years of azoospermia, a medical condition where a male is unable to produce any sperm so anabolic steroids should be avoided if you are seeking to start a family.

Exposure to Environmental Toxins

Reproductive-aged men and women should as much as possible, limit exposure to endocrine-disrupting chemicals in food, air, water, and personal care products, and to air pollution.

A growing body of evidence suggests that exposure to synthetic and naturally occurring environmental chemicals in food, water, air, and consumer products may contribute to reduced fertility in men and women. Of particular concern are endocrine-disrupting chemicals, a class of compounds that alter the hormones resulting in adverse health.

In a systematic review of 28 articles on persistent organic pollutants (POPs –chemicals that are stored in our bodies), there was a high level of evidence on the adverse effects of female exposure to polychlorinated biphenyls (PCBs) on time to pregnancy.

Air Pollution

The potential adverse effect of air pollution on fertility is another area of growing concern with higher exposure to ambient air pollution linked to lower fertility rates in Europe, the United States and China.

Previous studies have shown that couples who live closer to major roadways have a higher risk of infertility and longer time to pregnancy than couples who live farther away.

Numerous studies have also linked increased air pollution exposure to impaired semen parameters including higher sperm DNA fragmentation and aneuploidy, lower sperm morphology and motility, and altered reproductive hormone levels.

While it can be hard to avoid all toxins, awareness is key and there are steps you can take to avoid the most damaging.

[Read our article here on avoiding toxins](#) and [download our eBook here on How to Detox your Home](#) which explains how to make your own safe household cleaners.



Alternative therapies that may support conception



We often get asked whether alternative therapies like acupuncture, massage, hypnotherapy, meditation, yoga or other stress-reduction strategies can help with fertility or conception.

While there is still quite limited scientific or medical evidence that proves the beneficial impact of complementary and alternative medicines and therapies on fertility, we do know that some patients report seeing results.

There is a wealth of high-quality research proving that unhealthy levels of stress can impair a wide range of natural body functions. Removing the stress can often have a beneficial effect on symptoms and we support a holistic approach that looks at the 'whole you'.

We don't know if it is the treatments themselves, or just the increased feelings of wellbeing...

but if you try something and it seems to be working for you, then keep doing it!

Practice good sleep habits

One of the biggest culprits to interrupt our sleep is stress. Many of us don't realise that when we are sleep-deprived we feel irritable, stressed, and sad throughout the day.

Learning good sleep habits can significantly improve your sleep quality and thus your mood.

No matter what stage you are at in life, staying healthy can help you feel stronger emotionally and physically, and have you ready to handle any situation that arises in the future.

Acupuncture

Acupuncture is the therapy that we most frequently get asked about. Acupuncture treatment involves the insertion of fine, sterile, single-use, disposable needles into specific sites (acupuncture points) along the body's energy pathways (called 'meridians') to clear energy blockages and encourage the normal flow of energy, or Qi, through the body.



Along with listening to your concerns, acupuncturists will ask general questions about your health and palpate, or feel, your body to check for pain or inflammation. An appointment usually lasts around one hour, and the needles are inserted for 30 minutes. In most fertility cases, the needles are focused on the legs, lower back, or lower abdomen.

Treatment aims to improve blood flow to the ovaries and endometrium. This may encourage the ovaries to function and may also help to increase the thickness of the endometrium - the uterine lining.

Acupuncture is reported by patients to be helpful in:

- **Increasing a sense of well being, stress reduction and relaxation**
- **Reducing uterine cramping/pain**

There is currently no quality evidence that supports acupuncture quickening the time to pregnancy, but it may improve your emotional well-being by reducing stress levels. The most important thing when undertaking acupuncture is that you feel comfortable and supported and that the treatment is right for you.

Massage

Massages can help improve circulation, relax the nervous system, relieve stress, and promote overall health and wellbeing. From the perspective of stress reduction, they certainly may be beneficial throughout the process of attempting to conceive. But from a medical perspective, there is no concrete evidence that they have any positive impact on a person's fertility.



But if you enjoy them there's certainly no harm in continuing!

Essential Oils

Who doesn't love the beautiful natural fragrance of essential oils?! They have been used for centuries as a way to lift mood and promote a feeling of wellbeing. You should be aware however, that not all oils are safe if you are trying to conceive as some chemical compounds that they contain can interfere with hormone levels.

Luckily, some of these common oils have been the subject of several studies and while we can't for certain say they are 100% safe for everyone, they are probably not going to cause any harm (and they all smell divine!):

- **Chamomile**
- **Cypress**
- **Eucalyptus**
- **Frankincense**
- **Geranium**
- **Lavender**
- **Lemon**
- **Orange**
- **Neroli**
- **Peppermint**
- **Spearmint**
- **Tangerine**
- **Ylang ylang**



Here are a few guidelines to keep in mind if you do use oils:

- **NEVER ingest essential oils**
- **Make sure you use only high-quality essential oils that are pure and do not contain added synthetic chemicals to dilute them**
- **Consider buying only Australian grown and made products**
- **Dilute all essential oils in a carrier oil (such as sweet almond oil) before using them on your skin**
- **Limit the use of a diffuser or vaporiser to 10 to 15 minutes per hour**

Once you become pregnant, don't use them on your skin, use fewer drops than normal in the diffuser, and avoid using completely during the first trimester.

For more details on which oils to avoid during preconception and pregnancy see our web article [Are Essential Oils Safe When TTC?](#) or go to the '[Fertility News](#)' section on our website.

Hypnotherapy

Clinical Hypnotherapy uses advanced methods of hypnosis and other techniques to treat a variety of medical and psychological problems including stress.

Stress can activate the body's fight or flight response, triggering a physical response in the body that is not conducive to falling pregnant. Hypnotherapy may reduce stress and facilitate positive thoughts, which could increase the chance of conceiving naturally and/or increasing the success of medical assistance such as IVF.

Meditation

Meditation promotes relaxation by training the mind to feel calm. While there's no scientific or medical evidence of a direct link between meditating and increased fertility, many people find it helps them to relax.

These days, there are lots of free apps available that can help you start meditating in as little as five minutes a day, such as Calm or Headspace.

Yoga

Yoga is a relaxing activity, helping to release mental stress and physical tension. It is also a great way to ease the body

into exercise and regular movement.

Numerous studies suggest that gentle, low impact yoga can improve the pregnancy rates in couples undergoing IVF and other fertility treatments, due to the boost to both men's and women's physiological and psychological states.

In conclusion, although there is no direct correlation between yoga and increased fertility, its benefits on stress reduction and introducing exercise and movement could have a positive overall impact on the mental and physical health of men and women undergoing fertility treatment, and that certainly cannot be a bad thing.

Want to find out more about lifestyle choices that can improve fertility?

Check out our website:
[Flindersfertility.com.au](https://www.flindersfertility.com.au)

Book A Fertility Chat

We'd love to talk with you about your fertility goals. [Click here](#) or call **08 8155 5333** to book a free, no obligation chat with one of our friendly fertility advisors.

Summary

- Time to conception increases with age. For women over 35, consultation with a reproductive specialist should be considered after 6 months of unsuccessful efforts to conceive.
- Intercourse every 1 to 2 days during the fertile window can help maximize the chance of pregnancy
- For couples who are unable to have regular frequent intercourse, fertility awareness methods may help time frequent intercourse to the fertile window and decrease time to pregnancy.
- Smoking and recreational drugs should be discouraged in men and women attempting pregnancy. Alcohol and caffeine use should be limited to minimal to moderate use while trying to conceive.
- A healthy lifestyle and diet is important in both men and women attempting to achieve pregnancy to boost general health.
- Women wishing to become pregnant should take a daily folate supplement (500µg) and 150µg of Iodine
- Reproductive-aged men and women should try to limit their exposure to endocrine- disrupting chemicals in food, air, water, and personal care products, and to air pollution.
- Many complementary therapies can improve your general wellbeing and health and reduce stress levels – which are all important when you are trying to conceive.
- The positive effects of alternative therapies such as acupuncture, meditation, yoga, massage, and hypnotherapy on women's psychosocial health outcomes (i.e. positive management of anxiety, stress and increased general wellbeing) can help immensely.

