

Understanding Fertility and Infertility



Everything you need to know about
fertility and infertility – from symptoms to
solutions

Marilyn Glenville PhD

Understanding Fertility and Infertility E-book

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Understanding Fertility and Infertility

By

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In this e-book you will discover all you need to know about fertility and what you can do to help increase your chances of conceiving, naturally.

We trust you will find the information you read here both helpful and practical on a day-to-day basis.

This e-book has been designed to give you as much useful information as possible in order for you to be able to help yourself and make a difference to your health and the way that you feel.

At the end of this e-book there are some links to other resources that you might find helpful at this time.

Happy reading.

Free health tips

If you would like to receive my exclusive Health Tips by email, drop me a line at health@marilynglenville.com. Just mention 'Free Health Tips' in the subject line and you will be added to my special list to receive regular health tips and other useful information.

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Disclaimer

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Fertility

Over the past twenty years, fertility problems have increased dramatically. At least 25 percent of couples planning a baby will have trouble conceiving, and more and more couples are turning to fertility treatments to help them have a family. On average, young couples can expect to wait an average of three years before conceiving, and, as a result, very few doctors will consider a diagnosis of infertility until after at least a year has passed. With a growing number of women waiting until their careers are established before they try to conceive, conception can be more difficult.

What is the cause?

From a medical point of view, infertility is believed to be caused by the following factors, and in these proportions.

Problem	Percentage of cases
Ovulatory failure (including Polycystic Ovary Syndrome)	20%
Tubal damage	15%
Endometriosis	5%
Male problems	26%
Unexplained	30%

If the mathematics don't add up, it's because many couples experience more than one problem when trying to conceive: for example, you may suffer from endometriosis, but your partner may also have a low sperm count.

Interestingly, the most common cause of infertility is 'unexplained', which means that following thorough investigations, doctors can find no specific or identifiable medical problem at the root. But this is where a natural approach can come into play. If a couple fails to become pregnant, there is obviously something causing the problem. It's no good labelling infertility 'unexplained'. The answer is to look deeper – at lifestyle factors, nutritional deficiencies and even emotional elements. As the old saying goes, you can't find something that you aren't looking for.

Fertility is multi-factorial – in other words, there are many things that can affect your ability to conceive, and they are not all medical! To find the cause of fertility problems, it is important to look at every aspect of your health, your emotions and your lifestyle. If you want to investigate the subject even further, please see my book *Getting Pregnant Faster*.

Are You Infertile?

Infertility generally means an inability to conceive, but there are many reasons why you are not able to become pregnant, and many of these may be temporary. A diagnosis of infertility does not necessarily mean that you will always be infertile. It simply means that there is a problem that needs to be addressed. In the case of unexplained infertility, the more correct phrase should be 'subfertile', because if given the right advice to boost your fertility, chances are you can become pregnant.

If you are quite young (between 20 and 30 years), with no known problems, you can expect to wait about 12 months for a pregnancy. If nothing happens during that time, approach your doctor for tests.

However, if you are over 35 and six months of trying has not produced the desired result, see your doctor. Biologically it is harder for women over 35 to conceive, and you may need intervention earlier than someone who is younger.

What can cause Your Infertility?

Your doctor will arrange a series of tests to establish what -- if any -- problems exist. Remember, unless you have been trying to become pregnant for at least a year, your doctor will not consider you to have a fertility problem.

Although this book focuses on women's health issues, there can be no doubt that it takes two to make a baby. For that reason, factors affecting male fertility and their subsequent treatment will be addressed in this e-book. Some 40 per cent of fertility problems are associated with men, yet the focus, particularly in the early stages of investigation, tends to be on the female partner. Testing for problems should always be undertaken in both partners at the same time. If you are not conceiving, it is extremely important that both you and your partner are examined, and that you put into place the recommendations suggested later on in this e-book.

Tests for Women

Blood tests

A blood test is normally the first step in assessing female fertility problems, and it is mainly undertaken to see whether or not you are ovulating. Tests normally take place on day 21 of your cycle, and they will measure your progesterone level. If the test shows that you are ovulating normally, your doctor will likely suggest that you carry on trying for another few months. If you are not ovulating, you will probably be referred to a gynaecologist, who will take things further.

Infections and fertility

Many people are unaware of the fact that some infections can prevent conception. For this reason, it's essential that both you and your partner are screened for infection. Your tests should screen for cytomegalovirus (CMV), mycoplasmas/ureaplasmas, chlamydia, anaerobic bacteria, group B haemolytic streptococci, gardnerella vaginalis, klebsiella, toxoplasmosis and candida. You will also need to ensure that you are immune to rubella (German measles), which can affect the health of your baby once you do become pregnant.

In some cases, your doctor will organise screening, although you may need to visit a GU (genitourinary) clinic at your local hospital. If you have a positive result for any infection, you will need to ensure that it is treated properly and that you are retested and given the all-clear before attempting to conceive again.

Further tests

If a blood test shows that you are ovulating normally, but you fail to conceive, further tests will be necessary, and you will be referred to a gynaecologist. He or she will check to see that your fallopian tubes aren't blocked, and to check for anything else that may be preventing conception, including endometriosis (see Endometriosis e-book) or fibroids (see Fibroid e-book).

Some of the most common tests are listed below:

Laparoscopy

This diagnostic procedure involves inserting a laparoscope (a narrow instrument with a telescopic lens) through a small incision below the navel and into the abdomen. It allows your specialist to examine your uterus, fallopian tubes, ovaries and other abdominal organs to ascertain any problems that may be preventing conception.

Hysterosalpingogram (HSG)

This is an X-ray procedure in which a special opaque dye is injected through the cervix to see the inside of the uterus and to assess whether or not the fallopian tubes are 'patent', or open, and to what degree. The test is always undertaken in the first half of your menstrual cycle, so that you know you cannot be pregnant.

Hystero-contrast Sonography (HyCoSy)

This examination is similar to the HSG but ultrasound instead of X-rays are used to assess your fallopian tubes. It is also a valuable tool for examining the uterine cavity for fibroids or other problems.

Hysteroscopy

In this procedure, a hysteroscope (a lighted scope) is inserted through the cervix in order to view the inside of the womb to pick up any abnormalities.

In most countries, fertility testing offered by health services involves a series of tests undertaken across several months. In other words, each test is often done during a different cycle. You may have a blood test one month, a laparoscopy in the second month and further tests later on. Though widely used, this approach does not provide you with information about how your body actually works over one complete cycle.

Monitored cycle

If you have not had any fertility examinations (except for maybe a 'Day 21' blood test for progesterone), this is one of the best first step tests you can take. Monitoring your cycle is an excellent investigative tool and a useful aid to treatment. It means that by the end of one cycle you know your fertility status

and, with the help of the clinic, what your plan of action should be. Monitored cycles are organised by my clinics (see www.marilynglenville.com) and combine a number of the most important fertility tests all in one cycle

Monitored cycle using ultrasound and blood tests

Between days one and three at the beginning of the cycle, a blood test is taken to measure oestradiol, which is produced by the ovary, and luteinising hormone (LH) and follicle-stimulating hormone (FSH), which are produced by the pituitary gland. Your egg reserve will also be checked. This blood test also checks hormone output from the thyroid gland, and prolactin levels both of which are essential for normal reproductive function.

Then, three scans are performed during the cycle to show the thickness of the womb lining, as well as the size and growth of, and the blood flow to the developing follicle (egg) in the ovary. One scan is undertaken following ovulation to assess the functioning of the corpus luteum, which pumps out the hormone progesterone, which is required to maintain a pregnancy. This scan will also determine whether the womb lining is thick enough for a fertilised embryo to be implanted and sustained.

Monitored cycle using saliva

A total of twelve saliva samples are collected at home at specific times across one cycle, and sent to the lab for analysis. This simple test will chart the level of the hormones oestrogen, progesterone and testosterone across the month, to work out a pattern that may reveal:

- Early ovulation
- Anovulation (no ovulation)
- Problems with the phasing of the cycles, such as a short luteal phase (second half of the cycle)
- Problems with maintaining progesterone levels

This test can be done even if you have irregular cycles. This test can be organised by post so do contact me (health@marilynglenville.com).

Rosalind

Twenty-nine-year-old Rosalind was concerned because she had just started using a home testing kit for ovulation and realised that over the last three months she had not been ovulating at all. She wanted to start a family

and obviously this was of concern. Her hair mineral analysis showed that she was low in zinc. Her diet was pretty good, but she had an overwhelming weakness for chocolate. I also suggested some herbs (including agnus castus) to help balance her hormones. Over the next two cycles she ovulated each time. She then reduced the dose of the herbs over the next cycle, making sure she was still ovulating.

Which monitored cycle?

The monitored cycle using ultrasound and blood tests gives extra information, in that the development and thickness of the womb lining can be assessed at the same time as looking at hormone balance. It gives your doctor an idea whether or not your womb lining is actually thick enough for an egg to implant.

However, the saliva monitored cycle is very convenient as a first step because you don't need to go into a clinic during the cycle. Samples can be taken at home (see The Next Step section) and then sent to a laboratory for analysis.

Tests for Men

Semen analysis

Semen analysis is the most basic male fertility test and it can be easily undertaken at home, or in a clinic setting. Your partner will be asked to provide a semen sample by masturbating directly into a sterile container. He will be asked to abstain from sex for a minimum of 48 hours before giving a sample, but no longer than seven days. Some clinics prefer that the sample is taken on-site, while others will allow your partner to produce the sample at home and to bring it directly to the lab (usually within an hour of it having been taken).

The semen sample will be examined and the following things will be measured:

- The number of sperm per millimetre (the sperm count)
- The percentage of sperm moving (the number of motile sperm)
- The quality of that movement (progression, which is graded from 1 to 4; 1 is the highest score and 4 is the lowest)
- The percentage of abnormal sperm
- The volume of semen

According to the World Health Organisation, which sets recommendations for semen analysis, there should be more than 15 million sperm, of which at least 4 per cent should be normal and at least 40 per cent should be actively moving.

If there is a problem with your partner's sperm, then he should be referred to a urologist who can assess the reason. The normal course of action involves testing for infection, as well as checking hormone levels. A physical examination will pick up any obvious blockages. For example, he may have a varicocele (an enlarged vein around the testes), which could be inhibiting sperm production and perhaps motility. There is some evidence that a varicocele can overheat the testes, causing problems with fertility; however, many men have completely harmless varicoceles that have not affected their fertility. Unfortunately doctors cannot predict which men with varicoceles will benefit from having them treated, and if you are having trouble conceiving, it is probably wise to have them treated. This normally involves tying off the affected veins.

A urologist may organise hormone tests for your partner, and these

could include FSH, LH, prolactin, testosterone and thyroid hormones. If FSH levels are high, it may indicate that there is a problem with sperm production in the testes. Some medications, such as clomiphene citrate and tamoxifen have been used to treat male infertility, but they are controversial and we do not know how beneficial they are.

Anti-sperm antibody test

Some men produce antibodies that cause their sperm to clump together (agglutinate), lose motility (mobility) or prevent fertilisation. Antibodies are often produced in response to an infection causing a man's immune system to recognise his own sperm as a foreign body that needs to be destroyed.

The most common test for antibodies is the MAR (mixed antiglobulin reaction) test, which usually comprises part of a normal semen analysis. If antibodies are present, the sperm will appear in clumps instead of moving freely.

Treatment for anti-sperm antibodies may include steroids, which can have many side effects, including weight gain, stomach bleeding and depression. IVF (see below) treatment may still be possible if the sperm is capable of penetrating the egg. If not, ICSI (intracytoplasmic sperm injection) may be appropriate (see below).

What treatment can you be offered by your doctor?

Your doctor may suggest one of a variety of different treatments, but the first course of action is likely to be drug-based.

Drugs

If tests show that you are not ovulating, but your Fallopian tubes and your partner's sperm are normal, drugs for inducing ovulation will normally be the first line of treatment. There are many drugs now available, and they are aimed at stimulating ovulation, correcting hormonal imbalance and ensuring that an egg is released each cycle. These drugs do not make you more fertile in the long-term; they simply work during the month in which they are taken

Clomiphene citrate

This drug stimulates ovulation if you are not ovulating and it is also used if you have infrequent periods and long cycles. It is taken for five days early on in the cycle. It should not be used for more than six cycles, as there is an increased risk of ovarian cancer when it is taken for more than 12 cycles. (1) Side-effects can include bowel upsets, bloating, headaches, dizziness, breast discomfort, blurred vision, hot flushes and depression.

Other Drugs

Other drugs can be used, such as human chorionic gonadotrophin (HCG), which helps the dominant follicle to release its egg. Human menopausal gonadotrophin (HMG), which is a combination of FSH and LH, is given by injection and is used when clomiphene has not been very successful. The side effects from these are similar and can include mood swings, depression and breast tenderness

Progesterone

If tests show that your progesterone levels are not being maintained in the second half of the cycle then it is possible to conceive and then have a period without knowing you are pregnant, because the progesterone levels were not high enough to hold the pregnancy. Some doctors who suspect this is happening, give progesterone support in the second half of the cycle while you are trying to get pregnant. Around the time when the period should arrive, you do a pregnancy test, if pregnant then you stay on the progesterone and if not then you stop it.

Some women may suspect this drop in progesterone is happening because they get breakthrough bleeding or spotting a few days before the

period actually happens.

Assisted Conception

These procedures can increase the number of eggs released during your cycle: intrauterine insemination (IUI) two or three eggs are normally released; in in-vitro fertilisation (IVF) between two and eight eggs can be released. They also reduce the distance that the sperm has to travel to reach your eggs by inserting the sperm in a closer position. Fertilisation can take place inside or outside the body, depending on which procedure is used.

Intrauterine insemination (IUI)

IUI is a procedure that puts your partner's sperm directly into your womb using a fine catheter. The sperm is inserted at a much higher point than it would be during intercourse, which should improve the chances of fertilisation.

Stimulatory drugs (such as clomiphene) are usually taken to encourage two or three eggs to mature and to increase the chance of the technique working. If you have been given a diagnosis of unexplained infertility, you are under the age of 35 and there seems to be no medical or physical reason why you and your partner are not conceiving IUI should be the first assisted conception treatment offered. The success rate is around 15 per cent.

IVF (In-vitro Fertilisation)

IVF is a technique for fertilising your eggs with your partner's sperm outside your body – hence the use of the phrase 'test tube babies'. The fertilised egg is then implanted back into your womb. In order to prepare your body for this procedure, drugs are used to put your body into a temporary menopause. This stops your own hormones interfering with the IVF treatment. Other drugs are then used to stimulate several follicles (eggs) to develop. Between 34 and 38 hours later the eggs are collected through your vagina using an aspiration needle that is guided by ultrasound. You may be sedated for this procedure or have a general anaesthetic. Some women may find this process painful, while others will not.

Your partner provides a fresh semen sample and up to 100,000 sperm are mixed with each egg. The aim is to collect about 20 eggs. Those that are fertilised and start to divide well will be chosen to go back inside the womb. Success rates in the UK are about 25 per cent.

Frozen Embryos

Fertilised embryos from IVF treatment can be frozen if they are of good quality. Under the HFEA Act of 1990 these embryos can only be kept in storage for 5 years. It's worth noting, however, that frozen embryos do not always thaw well, and many will have to be discarded.

Intracytoplasmic Sperm Injection (ICSI)

ICSI is performed if your partner's sperm count is so low that IVF is not possible, if he is unable to ejaculate or if he has an obstruction that prevents sperm being released. This technique involves injecting a single sperm directly into the egg in order to fertilise it. The embryo is then implanted in the womb. The procedure involves much the same drugs as IVF.

Risks of Infertility Treatment

Infertility treatments are not without their risks, and these should be considered carefully before going ahead with any form of treatment. Many of these treatments require a large number of different drugs to control or change your cycles. It's worth considering the effects of these drugs when assessing the risks of each specific treatment.

Although it may be difficult to accept, it is important to consider the fact that we may not be able to conceive for a reason. Everyone and anything in the natural world is governed by a mechanism designed to protect the population – in other words, to ensure that the fittest survive. Today we have the technology to over-ride this natural order and many experts are concerned that there may be cases where this is inappropriate. Certainly the technology is there, but there may be consequences that will affect your baby's health, and these must be thought through carefully. Anyone considering assisted conception treatment must carefully assess what these risks may be, and how they will affect your life and that of any baby you may conceive.

In IVF treatment, a number of sperm are mixed with the egg. It is believed that the egg has an ability to 'favour' healthy sperm over those that may be defective, which is yet another safeguard measure nature has to offer. However, in ICSI, the egg is not given the opportunity to 'choose' appropriate sperm because only one sperm is used and then directly inserted. For this reason, and because of the fact that immature sperm or even sperm cells are used instead of healthy active sperm, there have been concerns that ICSI could result in babies being born with problems. However, research shows that children conceived by IVF or ICSI are at significantly increased risk for birth defects, and there is no risk difference between children conceived by IVF or ICSI. (2)

When we use assisted conception techniques such IVF, the body is put under great pressure to mature a large number of eggs in one cycle when normally only one or two would ever be released at the same time. Not surprisingly, there is concern about the long-term effects of taking these drugs. Furthermore, some research suggests an increased risk of ovarian cancer. The scientific results are not conclusive and more long-term research needs to be undertaken; however, some studies show that there is an increased risk of ovarian cancer for women who have undergone fertility treatment. (3)

In the light of this confusion, it is better to err on the side of caution and

to follow the advice below to maximise the chances of conceiving on your own. If you do decide to opt for assisted conception procedures, these suggestions will help increase the chance of the treatment working more quickly, thereby reducing the number attempts that will be necessary.

My book, *Getting Pregnant Faster* has more detailed information on the different techniques available.

Before You Start Fertility Treatment

Embarking on IVF treatment is a big step, both financially and emotionally, so it needs to be thought through carefully. Many couples are unaware of the implications. For example, it can take years to conceive and it can involve a great deal of regular treatment and attendance at clinics. If you work, it can be difficult to fit it all in. Quite apart from that, it's important to consider the physical effects of the drugs on your body and the emotional roller-coaster on which you may find yourself. Remember that the average success rate for assisted conception procedures is only around 25 per cent. That means that 75 per cent of treatment cycles will fail, and it can be emotionally devastating when that occurs. Consider also the financial cost. At present it can cost up to £8,000 per treatment cycle. It's not unusual to need several to become pregnant. You'll need to be prepared for that.

It is not easy to get fertility treatment on the NHS or other health services and sometimes only drug treatments are available. In the UK all clinics offering assisted conception have to be licensed by the HFEA, Human Fertilisation and Embryology Authority. The HFEA produces 'league tables' showing how successful the clinics are, and these are essential reading for all couples deciding where to go for treatment.

What natural treatments could be effective?

The natural approach to fertility is and has been enormously successful, largely because fertility is multi-factorial, meaning that there are many, many elements that can be at the root of your fertility problems. A study conducted by the University of Surrey showed that couples with a previous history of infertility who made changes in their lifestyle, diet and took nutritional supplements had an 80 per cent success rate. (4) *Given* that the success rate for assisted conception is around 25 per cent, it's worth considering these options.

Natural treatment plans are, by their nature, extensive and really do need to be adjusted to suit your individual requirements. I will, however, go through the most important points below. Remember that it takes at least three months for immature eggs (oocytes) to mature enough to be released during ovulation. It also takes at least three months for sperm cells to mature, ready to be ejaculated. This means that when you are trying to improve your fertility, you need to have at least a three month period before conceiving. This is called 'pre-conception' and it's as important to take care during this period as it is during a pregnancy itself.

If you are going for IVF treatment or another assisted conception procedure, you should follow the recommendations listed below in order to increase the chances that the procedure will work.

Diet

Although it goes without saying that a healthy diet is crucial to a successful pregnancy and a healthy baby, many people are unaware of the fact that diet can help to correct hormone imbalances that may affect a couple's ability to conceive. The following should be included:

- Plenty of fruit and vegetables
- Complex carbohydrates – wholegrains like brown rice, oats and wholemeal bread
- Organic foods where possible
- Oily foods such as fish, nuts, seeds and oils
- Reduced intake of saturated fats from dairy products
- Increased intake of fibre
- Avoid additives, preservatives and chemicals, such as artificial sweeteners
- Avoid sugar, both on its own and hidden in food

Alcohol

Alcohol will affect both you and your partner. In fact, drinking any alcohol at all can reduce your fertility by half – and the more you drink, the less likely you are to conceive. (5) One study showed that women who drank less than 5 units of alcohol a week (equal to five glasses of wine) were twice as likely to get pregnant within six-months compared with those who drank more. (6)

Research has also shown that drinking alcohol causes a decrease in sperm count, an increase in abnormal sperm and a lower proportion of motile sperm. (7) Alcohol also inhibits the body's absorption of nutrients such as zinc, which is one of the most important minerals for male fertility.

As difficult as it may seem, you should eliminate alcohol from your diets for at least three months in order to give yourself the best possible chance of conceiving.

Caffeine

There is plenty of evidence to show that caffeine, particularly in the form of coffee, decreases fertility. Drinking 500mg caffeine a day (about 4 cups of coffee) can delay conception by longer than nine months. (8) One study showed that problems with sperm: sperm count, motility and abnormalities, increase with the number of cups of coffee consumed each day. (9) Once again, it's important to eliminate all caffeine-containing food and drinks for at least three months before trying to conceive. That includes colas, chocolate, black teas and coffee, among other things.

Xenoestrogens

Xenoestrogens are essentially environmental oestrogens, coming from pesticides and the plastic industry. When you are trying to conceive, one of the most important things you need to do is to balance your hormones. It is extremely important to avoid anything that might cause an imbalance, and one of the main culprits is the xenoestrogens. One of the best ways to eliminate an excess intake of xenoestrogens is to buy organic for the pre-conceptual period.

Smoking

Smoking has definitely been linked with infertility in women. (10) It can even bring on an early menopause, which is a particularly important consideration for older women who may be trying to beat the clock. (11) And smoking is linked to 5,000 miscarriages per year. Smoking can decrease sperm count in men, making the sperm more sluggish, and it can increase the number of abnormal sperm. (12)

Supplements

There is now a great deal of scientific knowledge about the use of nutritional supplements and their beneficial effects on both male and female fertility. As you will see, these supplements can be very effective in re-balancing your hormones, as well as improving you and your partner's overall health, which are so vital for successful conception.

Supplements are necessary because even the best diet in the world will not contain all the nutrients you need to give you the best chance of conceiving.

Folic Acid

It is well known that folic acid can prevent spina bifida in your baby, and it is essential that you get plenty both before and during pregnancy. And that's not all: folic acid is undoubtedly important, but it is just part of the very important B-complex family of vitamins that are necessary to produce the genetic material s DNA and RNA. Together with vitamin B12, folic acid works to ensure that your baby's genetic codes are intact. Remember: it's not enough to take folic acid alone when you are trying to become pregnant. All of the B vitamins are essential during the pre-conceptual period. Research has shown that giving B6 to women who have trouble conceiving increases fertility (13) and vitamin B12 has been found to improve low sperm counts. (14)

Zinc

Zinc is the most widely studied nutrient in terms of fertility for both men and women. It is an essential component of genetic material and a zinc deficiency can cause chromosome changes in either you or our partner, leading to reduced fertility and an increased risk of miscarriage. Zinc is necessary for your body to 'attract and hold' (utilise efficiently) the reproductive hormones, oestrogen and progesterone. (15)

And it's equally important for your partner: zinc is found in high concentrations in the sperm. Zinc is needed to make the outer layer and tail of the sperm and is, therefore, essential for the health of your partner's sperm and, subsequently, your baby. Zinc is found in high concentrations in the sperm and is needed to make the outer layer and tail of the sperm and is, therefore, essential for the health of sperm. To show you how powerful these nutrients,

are men, who were subfertile, were given a combination of zinc and folic acid and it showed a 74% increase in total sperm count. (16)

Selenium

Selenium is an antioxidant that helps to protect your body from highly reactive chemical fragments called free radicals. For this reason, selenium can prevent chromosome breakage, which is known to be a cause of birth defects and miscarriages. Good levels of selenium are also essential to maximise sperm formation. Selenium supplementation given to men increase the sperm count, number of motile sperm and the number of normal sperm (17)

Omega 3 Fatty Acids

These essential fats have a profound effect on every system of the body, including the reproductive system and they are crucial for healthy hormone functioning. For men essential fatty acid supplementation is crucial because the semen is rich in prostaglandins which are produced from these fats. Men given Omega 3 fish oil supplements have a significant increase in sperm counts compared to men taking a placebo. (18)

Vitamin E

Vitamin E is another powerful antioxidant and has the possibility to help with older women where the number of eggs produced in a cycle may be less. (19) When men were given both vitamins E and C after one failed ICSI treatment, there was a significant improvement in pregnancy rate (48.2% versus 6.9% with the placebos) after just two months of treatment. (20)

Vitamin C

Vitamin C is also an antioxidant, and studies show that vitamin C enhances sperm quality, protecting sperm and the DNA within it from damage. (21) Some research has indicated that certain types of DNA damage in the sperm can make it difficult to conceive in the first place, or it can cause an increased risk of miscarriage if conception does take place. If DNA is damaged, there may be a chromosomal problem in the baby, should the pregnancy proceed. Whether or not DNA damage does have these effects has not been conclusively proven, but it's worth taking vitamin C and the other

antioxidants as a precautionary measure. Vitamin C also appears to keep the sperm from clumping, making them more motile.

One study has shown that women taking the drug clomiphene to stimulate ovulation will have a better chance of ovulating if vitamin C is taken alongside the drug. (22) Clomiphene does not always work in every woman, but the chances are always increased when vitamin C is supplemented.

L-Arginine

This is an amino acid found in many foods and the head of the sperm contains an exceptional amount of this nutrient, which is essential for sperm production. Supplementing with L-arginine can help to increase both the sperm count and quality. (23)

Note: People who have herpes attacks (either cold sores or genital herpes) should not supplement arginine because it stimulates the virus.

L-Carnitine

This amino acid is essential for normal functioning of sperm cells. According to research, it appears that the higher the levels of L-Carnitine in the sperm cells, the better the sperm count and motility. (24)

Herbs

Herbal treatment is aimed at restoring hormone imbalances, and encouraging ovulation if it is not occurring. It will also give you the best possible chance of maintaining a pregnancy, should you conceive.

Agnus Castus (*Vitex or Chaste tree berry*)

This is the herb of choice for helping to restore hormone imbalance and increasing fertility. In one study 48 women diagnosed with infertility took agnus castus daily for three months (25), 7 of them became pregnant during that time and 25 of them regained normal progesterone levels.

Agnus castus is particularly helpful for those women who have a luteal phase defect (shorted second half to the cycle) or those with high prolactin

levels, because it stimulates the proper functioning of the pituitary gland. which controls the hormones.

Agnus castus works to restore hormonal balance and can be used where there are hormone deficits as well as excesses it:

- Regulates periods
- Restarts periods which have stopped
- Helps with heavy bleeding
- Increases the ratio of progesterone to oestrogen by balancing excess oestrogen.

The Treatment Plan

The aim is to follow the recommendations for three months to optimise fertility. This means:

1. Eating a healthy diet
2. Taking the correct nutritional supplements (see below)
3. Adopting a healthy lifestyle
4. Being screened for infections
5. Avoiding environmental hazards
6. Timing your fertility investigations

I suggest that you follow this three month plan and do not try to conceive within that time. Why? Because when you follow the plan, your fertility will begin to increase. Everything needs to be working at optimum level before you conceive, both to prevent a miscarriage, and to give you the best possible chance of having a healthy baby.

If you have been trying to conceive for six months

If you are under the age of 35 and have been trying unsuccessfully to conceive for six months, follow the dietary and supplement suggestions given below for three months. At the end of this period, begin trying to conceive again. Give yourself six months before embarking on any fertility treatments or investigation by your doctor or a gynaecologist.

If you have been trying for six months and are *over* 35, follow the recommendations but visit your doctor and ask for tests to begin during that first three month period. If you are given a diagnosis of unexplained infertility, then try for six months on your own before going for medical treatment.

If you have been trying to conceive for 12 months or more

If you are under the age of 35, follow the suggestions below for three months. Then try on your own for six months before embarking on fertility tests.

If you have been trying for six months and are *over* 35, follow the recommendations but visit your doctor and ask for tests to begin during that first three month period. If you are given a diagnosis of unexplained infertility, then try for six months on your own before going for medical treatment.

The Integrated Approach

If you are already taking clomiphene or drugs to help you conceive, it is well worth taking three months off the drug treatment (you need to tell your doctor you are doing this) in order to optimise your fertility naturally. Then you can ask for a re-test of the investigations that determined you needed the drugs. If the situation is the same, resume the drug treatment but continue to take the vitamins and minerals. If things have improved, try for about six months, without any drugs, to become pregnant. Continue to take the supplements over this time.

If you have already been told that IVF (or ICSI) is your best option, you should still take the time to follow the three month plan first. Those three months are crucial, no matter what age you are. Both you and your partner need to be in optimum health before you go for the IVF treatment, to give it the best chance of working. You want to produce good-quality eggs that will be fertilised easily with good-quality sperm, and your body must be as healthy as possible to increase the possibility that those fertilised eggs will implant and stay in place. Continue to take the vitamins and minerals throughout assisted conception.

Note:

Don't take any herbs while you are using drug treatments or going through assisted conception (such as IVF) unless prescribed by a qualified practitioner.

Your Supplement Plan

The supplement programme below should be taken for at least three months in order to achieve best results

Your supplement plan

A specific multivitamin and mineral designed for fertility

Folic acid 400µg

Vitamin E 160mg

Zinc 30mg

Selenium 100µg

Vitamin C with bioflavonoids as magnesium ascorbate (1000mg per day)

Omega 3 fish oils (770mg EPA and 510mg DHA per day)

With all of the above for your partner plus:

L-arginine 300mg

L-carnitine 100mg

L-taurine 100mg

To avoid having to purchase single supplements for all of the above, and to make the process easier, I have formulated two supplements which contain the most important nutrients for fertility. They are called *Fertility Support for Women* and *Fertility Support for Men* (see www.naturalhealthpractice.com).

Your supplement programmes would look like this:

You	Your partner
Fertility Support for Women (1 capsule, twice a day)	Fertility Support for Men (1 capsule, three times a day)
Omega 3 Support (1 capsule, twice a day)	Omega 3 Support (1 capsule twice a day)
Vitamin C Support (1 capsule twice a day)	Vitamin C Support (1 capsule, twice a day)

In Summary

- Always investigate the cause of fertility problems before taking any drugs
- Ensure that you and your partner are screened for infection, if you are unable to conceive begin the dietary recommendations in this book.
- Avoid caffeine, which decreases fertility in men and women
- Avoid smoking, which has been linked with both infertility and premature menopause in women, and with sperm problems in men
- Avoid xenoestrogens
- Both you and your partner should avoid alcohol during the pre-conceptual period
- If you are under 35, follow the treatment programme for three months (the preconceptual period), then try on your own to conceive naturally for six months before going for fertility investigations. Continue with the supplement programme over that time
- If you are over 35, follow the programme for three months (the preconceptual period) *while* seeking tests from your doctor. If you are given a diagnosis of unexplained infertility, try on your own for the next six months. If you are told you need treatment (either drugs or IVF), finish the three month preconceptual plan and stay on the supplements, but embark on the treatment at the same time.

Susan

Susan and her partner were 30 and 31 respectively, and they'd been trying to have a baby for four years before coming to see me. They had been diagnosed with 'unexplained fertility' and had had four unsuccessful attempts at IUI. Susan had many problems with her periods: she had a regular cycle, but bled heavily with spotting and headaches before her period. At ovulation, her abdomen swelled up and she felt nauseous.

I asked them to arrange screening for infections and the tests came back positive to one infection, which was easily cleared up by antibiotics. Susan was deficient in a number of nutrients, including zinc, selenium, calcium and magnesium, and her partner had low zinc and high aluminium levels. I therefore recommended that he cut out tinned soft drinks and switch to an aluminium-free deodorant. Because I was concerned that the imbalance causing the problems with Susan's cycle could also be a factor in her inability to conceive, I also used a combination of balancing herbs, such as agnus castus, to alleviate Susan's spotting and heavy bleeding. Susan and her

partner followed the three month programme and waited until their mineral levels were back to normal. Nine months from their first appointment day, they conceived.

Your Next Steps

1. Take the Instant Online Health Test - The Health Detective to find out what vitamin and minerals you may be deficient in. You will receive a specific supplement programme with recommendations on how to bring yourself back to peak health. Click the link below for more information:

www.naturalhealthpractice.com/Health_Detective_P650C340.cfm

2. In case you don't want to take the above online health test we have formulated **Supplement Programmes specific to this health issue.** Click the link below for more information:

www.naturalhealthpractice.com/Supplement_Programmes_List_W178.cfm

3. You may require a more specific **Laboratory Health Test (Tests by Post).** Please click the link below for more information:

www.naturalhealthpractice.com/Laboratory_Health_Tests_C338.cfm

4. You may also be interested in one of **Dr Marilyn Glenville's Books.** Please click the link below for more information:

www.naturalhealthpractice.com/Books_C336.cfm

Direct order phone number & Email address:

Calling from the UK: 01892 507098

Calling from outside the UK: (+44) 1892 507098

Email: help@naturalhealthpractice.com

The Natural Health Practice Website:

www.naturalhealthpractice.com

Other E-books in this Series

- Understanding Amenorrhoea (No Periods)
- Understanding Breast Problems
- Understanding Cervical Abnormalities and Smear Tests
- Understanding Cystitis
- Understanding Endometriosis
- Understanding Fertility and Infertility
- Understanding Fibroids
- Understanding Health During Pregnancy
- Understanding Heavy Periods
- Understanding Hysterectomy
- Understanding Irregular Periods
- Understanding the Menopause
- Understanding Miscarriage
- Understanding Osteoporosis
- Understanding Ovarian Cysts
- Understanding Painful Periods
- Understanding Polycystic Ovary Syndrome (PCOS)
- Understanding Pre-Menstrual Syndrome (PMS)
- Understanding Prolapse
- Understanding Thrush
- Understanding Vaginal Infections
- Understanding Weight Control
- Fat Around the Middle (E-book)
- The 7 most common mistakes people make about their health and what you can do to avoid them
- The Foundation of Health
- Using Natural Medicine

For more information on the e-books listed above please click on the link below:

www.naturalhealthpractice.com/Ebooks_C337.cfm

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