Conception eBook
You may be thinking of starting a family or perhaps even adding to it. This eBook is designed to provide you with a practical guide to conceiving.

We have covered everything, from ensuring that your body and diet are in the best possible condition when you start trying to conceive, through to separating the myths from the facts when it comes to fertility.

Leading fertility clinic Concept have shared their expertise and advice to help you in achieving your goal of conception.

This eBook will guide you through working out when you are at your most fertile, how to chart your cycle, and exercise and healthy eating guidelines. We’ve also provided useful advice for if you find yourself struggling to conceive and some of the options available to you if that is the case.

Finally, we have the steps you can take to confirm if you are pregnant and when the best times to test are.

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The information presented is not intended to replace medical advice, if you have any concern for your infant’s or child’s health see a qualified health care professional.
A simple guide to Ovulation

Knowing when you ovulate is crucial, as it is a key factor in helping you conceive. In order to get pregnant you should have sex during the period spanning one to two days before ovulation, to about 24 hours after ovulation. The reason is that sperm can live up to 3 days but your egg survives for just 12–24 hours after ovulation.

Here are the answers to the most frequently asked questions about ovulation:

**What is ovulation?**

Ovulation is the fertile time of your menstrual cycle. It’s when a mature egg (sometimes there’s more than one) is released from your ovary, swept down the fallopian tube, and is available to be fertilised by a sperm.

**When does ovulation occur during the menstrual cycle?**

Time of ovulation varies from woman to woman, and from month to month. If you have a 28 to 32 day menstrual cycle, ovulation can occur between days 11 through to 21.

**What is ovulation pain?**

Some women experience ovulation pain near their ovaries every month or just occasionally. Around one in five women experience a noticeable pain every month at the time of ovulation.

Ovulation pain is an internal pain which typically occurs on either the left or the right side of the lower abdomen, inside the hip bone. The aching ovulation pain can last for an hour or two, or in some cases, for up to two days. Other women report that they regularly experience one short, sharp and intense pain midway through their cycle that lasts for just a few seconds.

**What is an ovulation test?**

Ovulation tests from the chemist are a great way to pinpoint the days in your cycle when you’re ovulating. These tests can be a really good option as they are generally pretty accurate.

**What happens after I ovulate?**

Two things can happen after ovulation: either the egg is fertilised and you’re in the very early stages of pregnancy, or conception didn’t take place this cycle and the unfertilised egg will be absorbed into the uterine lining and shed in your next menstrual period.
Charting periods

Understanding the importance of ovulation is vital to the next step in trying to conceive. This involves tracking your cycle. The most common and basic method of detecting ovulation is to use a monthly calendar. Mark the first day of your menstrual period and again, when bleeding stops.

By doing this for a couple of months it will help you to understand your own menstrual cycle. Although the average length of a menstrual cycle is 28 days, this can vary between individual women. Some have shorter or longer cycles. It is important to look for physical changes which indicate ovulation has occurred, rather than rely solely on calendar dates.

Ways to chart your cycle:

- **Take your temperature.** To chart your basal body temperature, use an accurate thermometer to take your temperature each morning before you get out of bed and record it manually. There are a number of thermometers on the market specifically designed to measure your basal body temperature. The main feature of these thermometers is their ability to give accurate and detailed results.

- **Monitor your mucus.** Typically after your period, you will usually have a few days without mucus. These are called “dry days.” When an egg starts to ripen, more mucus is produced. It will appear at the opening of the vagina and will generally be yellow or white and cloudy. It feels sticky or tacky. You will have the most mucus just before ovulation. It will be clear in appearance and feel slippery, similar to raw egg white. These are the “slippery days,” and it is the peak of your fertility. Typically after about four slippery days, you will have have less mucus and it becomes cloudy in appearance again. If you have not conceived you will usually become dry again before the appearance of your next period.

- **Listen to your body.** Some women experience mild cramping or discomfort in the region of their ovaries when they are about to ovulate. Others will feel vaguely nauseous, have back ache or headache. Some may even have a very slight blood stained vaginal discharge.

- **Watch for an increase in your libido.** Science has proven that women genuinely seem prettier and more attractive to their partners when they are about to ovulate. Even their body language can change in the most subtle of ways.

- **Use a test kit.** Using an ovulation testing kit which comes in one of two forms – saliva testing or urine based. Saliva testing can be useful as it predicts a surge in oestrogen just before ovulation occurs. Urine test kits work by identifying a rise in luteinising hormone which occurs one or two days before ovulation happens. Both testing kit varieties are available from pharmacies and are a straightforward way to help couples identify when conception would be most likely.
Our easy-to-use ovulation calculator will help you predict your prime time for conceiving a baby. Learn about the different phases of your ovulation cycle, how your temperature can alert you to ovulation time, and many other interesting and useful facts and figures. The calculator is a great tool – especially when used while watching for your signs of ovulation.

**Advantages of using an ovulation calculator**

- Planning for sex to coincide with ovulation. This maximises the chances of conceiving when a couple chooses to.

- As a means of contraception and reducing the likelihood of conceiving. For religious, cultural or family planning reasons, using a calculator can be a non-invasive method of “natural” family planning.

- For couples who spend time apart and are not always in close enough proximity to support spontaneous sex, the chances of conceiving are reduced. Using an ovulation calculator gives some framework to plan around dates and most fertile days.

- Useful in terms of predicting when the next menstrual period is due. For recreational reasons, working, going away and general comfort, being able to do this is often useful.

- For couples who want to have more onus of control over their fertility, make decisions around planning which suits them and maintain some privacy, ovulation calculators are another option.

**Huggies Ovulation Calculator**

Note to use this calculator, you will need the latest version of Flash installed on your computer. The calculator provides an estimate based on the information you provide and may not be accurate. Please seek advice from a medical professional if you are trying to conceive.
Conception diet guidelines

It is important to get your body into optimum shape especially when it comes to trying to conceive. Studies have shown that making sure you are following a healthy eating plan – before you conceive – can have an impact on the wellbeing of your baby in the long term.

A good pre-conception care diet is one that is high in vitamin C, zinc and folic acid (particularly for women); for example, red capsicum, coloured berries and guava are all very rich in vitamin C; nuts and seeds are high in zinc; and grains are good sources of folic acid (although supplementation is commonly recommended for B9).

So what do you need to do to prepare your body for conception?

1. Cutting back the caffeine: less than 300mg a day which is about 3 cups of coffee, but many medical experts recommend skipping it completely.

2. Go wholemeal: skip the whites and have wholemeal breads, pasta and brown rice.

3. Eat your greens: yes broccoli, kale, spinach leaves and bok choy must form a regular part of your meal planning. This is filled with folic acid which is crucial for your bub and a healthy pregnancy. Start adding it to the menu now. If you aren’t already, talk to your doctor about taking a folic acid supplement if necessary.

4. Include lean meat, beans and pulses in your diet – this will help both your iron levels and your ability to ovulate by loading your body up on protein and iron.

5. Cut back on salt because this can affect your blood pressure and fluid retention.

6. Check you are up to date on your immunisations to protect your body during pregnancy.
Getting fit and healthy for pregnancy

For many couples, trying to conceive can sometimes be stressful. One of the many benefits of a regular exercise programme is that it helps to reduce that, or at least make it more manageable.

Your pre-conception training programme should incorporate a mix of activities to maximise your overall strength.

So what types of exercise are good for your body during this time?

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<thead>
<tr>
<th>Exercise</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>Yoga</td>
<td>A great way to build up your balance, strength and muscle tone. If you aren’t a regular participant, it is a good idea to start with a beginner class and build up gently. In addition, if you participate in Bikram yoga in a heated room, you may want to check with your doctor about continuing with that. It is a strenuous exercise that may not necessarily be helpful when trying to conceive.</td>
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<tr>
<td>Running or walking</td>
<td>If you were a regular runner before you started trying to conceive there is no reason not to continue. It’s a great form of exercise. That said, keep your runs at a moderate rather than high intensity. If you haven’t run before, then it is best to check with your doctor before starting. Start with a low intensity programme like the couch to 5 programme. If you’re a walker, then carry on! This is a form of exercise you can continue doing safely while trying to conceive and beyond.</td>
</tr>
<tr>
<td>Swimming</td>
<td>Probably the perfect form of exercise when trying to conceive in many ways. It’s no impact and can be carried on right throughout pregnancy as well. This is good for your muscle tone and overall fitness.</td>
</tr>
<tr>
<td>Pilates</td>
<td>This form of exercise targets your strength, balance and posture, all of which are important for pregnancy. It’s a low to no impact workout which is safe to do while trying to conceive.</td>
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Infertility and common tests

Most of us assume we’ll be able to conceive naturally and have children when we plan to and when we want them. But it’s not always as straightforward as this. In truth, around one in every six couples will experience some degree of infertility, which is about 15% of the population.

Infertility is a more common issue than we give sufficient credit for. In Australia at the present time, we know that females account for around 40% of the cause for infertility problems and males another 40%. Infertility affecting both the male and female constitutes another 10% and the remaining 10% doesn’t have a clear reason at all. For many of these couples, IVF is the only way possible they will be able to conceive their baby.

Fertility clinic Concept has provided some facts about the key tests that may be needed if conception isn’t occurring. These usually occur after basal body temperature tracking has been taking place. Your doctor is the best person to decide which tests should be performed and in what sequence they should be done.

It should be stressed however that every couple may not need every one of the tests as so much depends on the individual couple’s problem.

1. Semen analysis and sperm count

This is the first and most basic male fertility test carried out on the male partner. The man is asked to produce a specimen of semen by masturbating into laboratory jars. It is desirable that one specimen be produced after 3 days abstinence from sexual activities. The specimen should be protected from extremes of temperature and examined within 3 hours.

The sample produced is examined for the number of sperm present (a sperm count), the ability of the sperm to move (motility), the shape and appearance of the sperm (morphology), the total volume of the ejaculate, and the vitality of the sperm.

It is important to realise the limitations of semen analysis. Men with quite low counts can father children and men with normal values may have sperm which are unable to fertilise oocytes. The semen analysis must be considered a general guide only.

Moreover, a man’s semen analysis may vary from week to week and further tests may be performed to obtain a better prognosis.

At this time, the sperm may also be examined to see if there are any sperm antibodies coating the sperm as these may prevent the sperm from penetrating the uterus to allow conception to occur. Sperm antibodies are proteins produced by the body’s immune system. The presence of antibodies is also diagnosed by a blood test in both men and women.
2. Hormone Assay

The ability to measure levels of progesterone, oestrogen, prolactin, testosterone, F.S.H. and L.H. is a very valuable tool for investigation of infertility problems in both male and female.

Normal hormone levels, when performed on a daily level, can indicate the most likely time of ovulation in the female. They do NOT, however, indicate the normality of the egg (oocyte), and they do NOT confirm egg expulsion from the ovary.

The levels of hormones are measured by sophisticated laboratory equipment and these tests can be performed on one blood sample. The tests are to determine that all the levels are within normal limits and are in balance. They are also used to determine if ovulation is occurring. Sometimes several blood tests may be required.

3. Hysterosalpingogram

This X-Ray examination is used to check both tubal patency and the internal structure of the uterus. It’s a relatively simple test which may involve some discomfort for the patient, and needs to be carried out by a specialist. In order to show up the soft tissue a radio-opaque dye is injected through the cervix. Some patients may feel a sensation of discomfort and cramping when this procedure is carried out.

A series of X-Ray pictures is then taken for later examination. Normally the dye will fill the uterine cavity and spill into both the fallopian tubes, then out at the ends where it will collect in the peritoneal cavity.

If the dye fails to pass in to the tube it may indicate a blockage or temporary spasm. The test enables the doctor to pinpoint the site of a tubal obstruction (if any) and also allows him/her to see any uterine defects that may be present.

4. Laparoscopy

A laparoscopy is one of the more complex tests carried out in infertility investigation. The purpose of the test is to allow the specialist to look at the ovaries, fallopian tubes and uterus. In order to carry out a laparoscopy, the woman has to be hospitalised (usually for the day only), as the procedure is done under a general anaesthetic. The laparoscope is a thin telescope-like instrument which is passed through a small incision in the abdominal wall near the navel.

The abdomen first has to be distended by blowing in carbon dioxide to ensure a certain amount of space exists between the organs. The laparoscope is then passed into the incision. It is possible to examine the size, shape and contours of the organs contained in the pelvic cavity. In this way any adhesions, scarring, endometriosis or fibroids can be detected. The patency of the tubes is tested by the injection of a dye through the cervix to see if any passes out through the tubes. The laparoscopy may avoid the need for major abdominal surgery. The after-effects of the procedure are minimal and the scar which remains is small and almost undetectable.

Dilatation and curettage or hysteroscopy may be performed at the same time as a laparoscopy, for diagnostic purposes.
5. Endometrial Biopsy, dilatation and curettage (D & C)

This test involves the microscopic examination of a scraping from the endometrium - the lining of the womb. This enables an assessment to be made of the influence of the hormone progesterone on the endometrium.

Progesterone causes regular and predictable changes in the structure of the lining of the womb, so microscopic evaluation is useful. Adequate levels of progesterone are essential for the critical phase of embryo implantation.

6. Hysteroscopy

This test is usually carried out at the same time as a laparoscopy. A small telescope is inserted through the vagina and cervix, allowing visualisation of the internal lining of the uterus and the openings of the fallopian tubes into the cavity. Distortion by fibroid, polyps or adhesions may need to be treated before permitting embryo implantation.

7. Post coital test

This is the observation of sperm within the cervical mucus following intercourse. The test must be performed at ovulation when the mucus is clear and copious, or you may be given oestrogen tablets to help produce mucus, so that when the test is performed you should have enough mucus. Accurate timing using hormone tests (oestrogen, LH, progesterone) on blood is very important. The couple is asked to have intercourse at home 4-12 hours prior to the test.

The test is a simple one, very similar to a smear test, except some mucus is collected from the cervix and then examined microscopically to see if live sperm are penetrating the mucus, and assess the amount of movement. If the sperm are all moving well it is reasonable to say this test is normal. However, the absence of moving sperm is not an indication of disease. There are too many factors contributing to a poor post coital test, and it is usual to repeat the test before making any conclusion.

8. Indirect immuno-bead test

Specimens of blood, sperm or mucus may be collected in the laboratory and are tested to exclude the presence of antibodies to sperm (IIBT TEST).
The myths and facts about fertility

Many myths have been built up round the often complex issue of trying to conceive. Here, Scientific Director of Concept Fertility Clinic, Peter Burton identifies the most common misconceptions and explains the facts.

**Myth:** Infertility is the female’s problem only.

**Fact:** Infertility can be caused by both male and female factors. In couples seeking fertility treatment in Australia and New Zealand in 2009, male causes were observed in 34% of couples and female causes in 36% of couples. Twelve percent of couples had both male and female causes. In around 30% of couples no cause could be identified and this is known as unexplained infertility.

**Myth:** Only female body weight is associated with fertility.

**Fact:** In Australia 7 million adults are overweight and a third of these are obese. It has also been estimated that 60% of Australian men are overweight. A number of research studies have shown a link between unhealthy female body weight and infertility. Recently research has shown that male obesity may also be linked to infertility. A study of overweight or obese men undergoing IVF treatment showed reduced embryo quality, embryo development and pregnancy rates compared to men with healthy body weight. An increase in pregnancy loss was also observed as the male partners weight increased above the healthy range.

**Myth:** Adopting a child will help you get pregnant.

**Fact:** A number of us have heard about a couple who adopted a baby and then fell pregnant. When reviewing the research on this issue it is clear that there is no effect of adoption on a woman’s chance of becoming pregnant. The pregnancy rate after adopting is the same as those who did not adopt.

**Myth:** A woman can only get pregnant on one day of the menstrual cycle, the day after ovulation.

**Fact:** Research shows that pregnancy can occur after intercourse over a four – five day period with the most pregnancies occurring during the two days before ovulation (release of the egg from the ovary). This is because sperm can survive in the female reproductive tract for up to five days so intercourse in the two days preceding ovulation will result in sperm being present in the fallopian tubes awaiting the arrival of the ovulated egg.
Myth: Fertility treatment is all about IVF.

Fact: Not all couples need to undergo IVF procedures. Many simply need to establish the fertile period of their menstrual cycle by doing cycle tracking which involves a few blood tests to measure and evaluate the reproductive hormones and then predicting when ovulation will occur. This helps ensure that intercourse occurs at the most fertile time of the cycle. Others may only need help to stimulate ovulation by taking ovulation induction medication. In some cases artificial insemination will be appropriate. All of these approaches are suitable for cases of unexplained infertility.

Myth: IVF and related treatment programs are expensive.

Fact: In Australia a large portion of the costs involved in IVF treatment are covered by Medicare (for eligible people). Although the actual costs vary considerably depending on the centre providing the treatment, the average out of pocket expenses for IVF in Australia are around the $2000 - $3000 mark. The Medicare safety net may also assist eligible couples by providing further rebates. Private health insurance may also cover some of the costs associated with IVF. It is advisable to check the clinic’s fees before embarking on IVF treatment.

Myth: IVF success rates are low.

Fact: IVF success rates depend on a number of factors including female age, body weight and smoking. In Australia the average success rate for IVF is 30%. It is estimated that the natural conception rate is 20 – 25% indicating that IVF is marginally more successful than natural conception.

Myth: Multiple pregnancy rates are high using IVF.

Fact: The multiple pregnancy rate after IVF in Australia is very low and pregnancies resulting in twin births are well below 10%. This is due to the strict code of practice which promotes the transfer of only one embryo in young women. Around 70-80% of all embryo transfer procedures in Australia involve only one embryo. The remainder are double embryo transfer and no more than two embryos are transferred. In countries where the number of embryos transferred still remains high, the multiple pregnancy rate will be high as a consequence.

Myth: “Embryo Glue” will help the embryo stick into the uterus after IVF and embryo transfer.

Fact: “Embryo Glue” is an embryo culture medium that contains a high concentration of hyaluronan and recombinant human albumin and is produced by an IVF embryo culture media company. “Embryo Glue” was designed to help embryo development after embryo transfer rather than “stick” the embryo onto the uterine lining. Initially there were some studies that showed “embryo glue” was not very effective. However, subsequently it was shown only to improve the pregnancy rate in groups of women who had had three or more embryo transfer cycles without success. More recently it has been shown that “Embryo Glue” may improve overall all pregnancy rates but its use also increased the multiple pregnancy rates.
A step further, IVF outlined

IVF – or In Vitro Fertilisation – stands for fertilisation taking place outside of a woman’s body, under controlled conditions such as in a laboratory. There have been over 1 million babies born as a result of using IVF technology; the first was a little girl called Louise Brown in 1978.

When should we see someone?

The general recommendation is that if a couple has been trying to conceive for two years or more and they are having no success, then investigations into the cause may be appropriate. An initial consultation with a general practitioner and then referral to an obstetrician and gynaecologist who specialises in fertility problems is the usual management.

What happens with IVF treatment?

IVF involves a number of steps and although individual fertility clinics may vary in their fertility techniques, the general principles and processes are the same. Five steps are usually undertaken, and these include:

1. Stimulating the ovary to produce more eggs by the woman taking fertility drugs;
2. Harvesting of the eggs from the ovarian follicles;
3. Fertilisation of the eggs in a laboratory;
4. Transferring the fertilised egg, the “embryo”, or the egg and sperm into the uterus;
5. Hormonal treatment to prepare the uterus to receive the fertilised eggs.
Follicle stimulation

There is a range of medications which are designed to stimulate the ovarian follicles to produce more eggs. The more eggs which are assisted to maturity, the greater the likelihood of successful fertilisation and successful pregnancy. Collecting several eggs maximises the chances of one being fertilised. The aim is to artificially bring 5-12 eggs to a state of maturity under controlled and monitored conditions. This takes around 12 days of injections, which many women learn to give to themselves. Alternatively their partner may take on this role.

Harvesting

The growth of the follicles is monitored closely by ultrasounds and blood tests, specifically levels of oestrogen. When the follicles containing the eggs are ripe and ready to be collected, an injection of hCG (human chorionic growth) hormone is given. One of the actions of this hormone is to stimulate the follicles to release its egg. Harvesting occurs around a day and a half later and is done in hospital when the woman is placed under a light anaesthetic. A very narrow, fine needle is injected into the ripe follicle and the eggs are aspirated (sucked) gently out.

Partner’s role

This is the time when your partner needs to do his bit and provide the scientists with a fresh sample of semen. With every ejaculation there are around 250 million sperm released, though this number varies on a number of factors. Age, hormones, frequency of ejaculation, diet and general health all play a role.

With standard IVF treatment, the eggs and sperm are mixed together in a plastic dish. If the quality of the sperm is not sound, then a sperm is injected directly into an egg and this is then transferred directly into the woman’s uterus. This is known as intra cytoplasmic sperm injection (icsi). An alternative is when sperm are sorted and selected to be the most viable and are transferred directly into the woman’s uterus.

There have been some changes in fertility clinic practice regarding the number of fertilised eggs which are transferred into the uterus. Currently many clinics will only transfer one or two back, so that the chances of having a multiple pregnancy are reduced.

Any excess embryos can be frozen for future use if a current cycle of IVF is unsuccessful or the uterus is not favourable enough for transfer to go ahead.
Testing for pregnancy

The two week wait can be the longest one in history. So how soon can you find out if you are pregnant and what is the most accurate way to tell?

Home pregnancy tests

There’s a big range of home pregnancy tests on the market which test for levels of the pregnancy hormone hCG in the urine. But in general, if you follow all the instructions, the tests are around 97 percent accurate.

The more sensitive tests claim to detect pregnancy earlier than others – and are therefore more expensive. Tests will measure how much hCG is present and report it in mIU per millilitre. More sensitive tests will detect anything over 20 mIU per ml and report it as positive, giving a result from as early as eight days after conception; while most tests will detect around 50 to 100 mIU per ml before returning a positive result.

The best time to test is first thing in the morning, as hormone levels are likely not to have been diluted, although most tests these days will give results any time of day. Avoid drinking lots of water before testing so you don’t dilute the urine too much.

The general rule on pregnancy tests is – one line (the control) means NO, you’re not pregnant; two lines mean Yes – you are pregnant, and you can begin to tell your family and friends, I am pregnant!

However, sometimes pregnancy tests show an ‘evaporation line’ which can confuse the issue. Read the instructions if you’re not sure – and most instructions also have a customer support line that you can ring if you are still unsure.

Blood tests

Pregnancy tests based on urine samples are so accurate these days that blood tests are rarely used to confirm pregnancy. Blood pregnancy tests used by doctors are estimated to be more than 99 percent accurate and will test for the presence of hCG. Some tests will check the level of hCG, which may give an indication of how far along the pregnancy has progressed. A blood sample is generally sent to a pathology laboratory and results available in a day or two.
False positives

Usually, if a test says you are pregnant – you are, but occasionally, a “false positive” result can occur. These can be heart-breaking and rare, but may occur for a few reasons:

• “Chemical pregnancy” – This is a term used for a very early miscarriage. About half of all pregnancies are thought to end in miscarriage, usually shortly after conception. But if a test is taken very early, when hormone levels have started to climb, you may detect a positive hCG response and then go on to have a period.

• Not following directions – Make sure you check the pregnancy test within the specified reaction period; a test that has been sitting around too long may return a false positive result.

• Fertility treatments – Some fertility treatments contain the hCG hormone and may return a false positive if the hormone is still present.

False negatives

If you test too early, you may get a negative result even though you are pregnant. Testing a few days later may return a different result, so do keep an eye on the changes in your body just in case. And in rare cases, a pregnancy test may not be working properly (although the test strip usually shows if this is the case) so you will need to re-test.

It can be a very exciting time when you first start trying to conceive. It can also become a very stressful period for many reasons. Remember to look after yourself and to seek advice and support from your GP if you are concerned.
We really hope you have enjoyed our Huggies® Conception eBook. You can visit our eBook library at www.huggies.com.au at anytime for many more free pregnancy, baby and parenting eBooks.

The Huggies Team