

Being pregnant  
Your guide to the first three months



# Congratulations

---

**Congratulations on your positive pregnancy test. While this is a very exciting time, it is also a time of discovery and you are sure to have many questions. We hope this book gives you some of the insights and answers you need to make the most of your first trimester.**

---





# Options for care and ultrasound

---

Choosing the right practitioner is a very personal decision. There is no right or wrong way to go about it. You may find it helpful to talk to family and friends.

---

## Pregnancy care options

### Choosing the right practitioner

You can gather information from books, magazines, the internet, and health organisations. Also consider contacting your Genea Fertility Specialist's rooms as they are likely to have obstetrician recommendations.

Think about where you would like to give birth (e.g. a large hospital, small hospital, public hospital, private hospital, birth centre or at home), as practitioners only assist women to give birth in a limited number of places.

It can be helpful when trying to make a decision to write down a list of questions you may have.

Some issues to consider are:

- What do I want from my care?
- What type of practitioner would I feel most comfortable with?
- Do I want public or private care?

#### **PUBLIC HOSPITAL CARE**

Medicare only – no extra costs

#### **ANTENATAL CLINIC**

Seen by doctors – consultants, registrars

#### **TEAM MIDWIFERY**

Care provided by a small team of midwives through the pregnancy, birth and postnatal

#### **GP SHARED CARE PROGRAMS**

Care shared between GP (mostly) and antenatal clinic (may involve GP fees)

#### **MIDWIFE CLINICS**

Care provided by the same midwife throughout the pregnancy

#### **BIRTH CENTRES**

Care provided by midwives and/or GP in the birth centre for pregnancy

#### **PRIVATE OBSTETRIC AND PRIVATE HOSPITAL CARE**

Cost involved

Care provided by a private obstetrician throughout the pregnancy and birth in a private facility

## Antenatal care options

---

**Most women have healthy pregnancies and experience a normal birth. The care you receive throughout your pregnancy, birth and postnatal period can enhance your experience. In order to meet women's choices, a variety of antenatal care options have been made available.**

---

### **Private hospital care (cost involved)**

If you have appropriate private health insurance (or if you don't have private health insurance but are willing to pay the costs) you can choose to have your antenatal care provided by a private obstetrician and for them to attend to your birth in a private hospital. Check with your fund to see if you are covered for this option of care.

### **Public hospital antenatal clinics (Medicare only – no extra costs)**

Women who do not have private health insurance can choose this option of care. Depending on where you live and the hospital you book into, the midwife booking your care will be able to advise you of the antenatal care options available to you.

### **Antenatal clinics**

These clinics are available to all women. They are run by doctors, registrars and residents. These clinics provide care to women experiencing normal or complicated pregnancies.

### **GP shared care programs (Medicare and additional costs may be involved e.g. GP fees)**

This option allows you to share your care between your GP and the hospital antenatal clinic. Your GP must be accredited with the hospital to provide shared care. If you do not have Medicare coverage, this is often the least expensive option. This option is convenient for those who don't live close to a public hospital. Your hospital can also provide you with a list of accredited GPs who attend shared care.

### **Midwife clinics**

These clinics are run by midwives. This option is suited to women experiencing a normal uncomplicated pregnancy. The same midwife will attend to your care for the duration of your pregnancy. If any complications develop then your midwife will refer you back to your doctor. You may be attended to by a different midwife for the birth and postnatal period.

### **Team midwifery (caseload)**

Team midwifery involves small groups of midwives who work together or an

individual midwife (caseload) to provide care throughout your pregnancy, birth and postnatal period supported by a named consultant. Many of the larger public hospitals provide team midwifery, caseload midwifery or a variation of this option.

### **Birth centres**

This option depends on the hospital you choose and whether or not they offer a birth centre. Birth centres are run by midwives with medical back up. Birth centres provide a home-like environment and the midwives assist you to give birth as naturally as possible.

Some obstetricians will assist you to give birth in a birth centre and some GPs will share the care between themselves and the birth centre.

All options of care require a referral from your GP.



## **Antenatal Care options in regional areas**

Antenatal care varies region to region. This means that some of the antenatal care options mentioned may not be available to you.

To find out what antenatal care services are available to you, please contact your Genea clinic Nurse Coordinator, your GP, your local hospital or your local community health clinic.

## **Ultrasound scans**

Ultrasounds can be performed at different stages of pregnancy:

### **7 week scan**

#### *Viability scan*

This scan is used to check the position and heartbeat of the embryo.

### **Dating scan or Nuchal Translucency (NT)**

#### *Early pregnancy test for foetal wellbeing*

NT-plus is a simple, straightforward and non-invasive test undertaken between 11-14 weeks of the pregnancy.

It combines maternal age with high-resolution ultrasound assessment of foetal nuchal translucency (NT). It also measures the levels of two proteins (free-BhCG and PAPP-A) in a pregnant woman's blood.

Other benefits of a NT scan include:

- Accurate dating of the pregnancy
- Diagnosis of multiple pregnancy
- Detection of early pregnancy failure
- Assessment of early foetal structures (such as the brain, limbs and abdominal wall) and detection of some of the more severe structural abnormalities.

### **18-20 week scan**

#### *18-20 week structural assessment*

This ultrasound examination is often considered part of routine obstetric care.

This examination sets out to determine:

- The number of babies in the uterus
- The age of pregnancy
- The baby's physical development
- The position of placenta
- The volume of fluid around the baby.


### **Third trimester scan**

#### *Foetal growth and welfare assessment*

The purpose of this examination is to assess:

- The position of the baby
- The size of the baby
- The amount of fluid surrounding the baby
- The degree of placental resistance to blood flow
- The baby's current state of health.

Most babies are head down towards the end of pregnancy. Occasionally the baby can be in a breech position, where the baby's bottom is closest to the cervix (the opening to the uterus).



# General tips for your pregnancy

---

It makes sense that you should aim to be happy and healthy during your pregnancy. Here are some tips for keeping yourself in shape, both mentally and physically.

---



## Relaxation

Relaxation can help counteract stress and produce a calm mind and body. More than any other time in your life, relaxation is an important technique to learn during pregnancy. If you can develop a good relaxation routine now, you will be well placed to handle the additional stresses of parenthood later on.

There are a number of relaxation techniques available. Yoga is particularly useful during pregnancy as it also helps stretch and strengthen the muscles to assist during childbirth. However, check with your doctor or instructor that the style of yoga is suited to pregnancy.

Many people also find meditation helpful and this can be beneficial during labour. There are many forms of guided breathing and relaxation available on CD and DVD which you can use.

## Exercise

Exercise in early pregnancy is important for wellbeing. Exercise improves body awareness and stamina, helps combat fatigue, helps with circulation and varicose veins and also helps with constipation.

Exercise during pregnancy helps to strengthen your muscles, especially your back and abdominal muscles which will be of benefit in the later months as your body grows with the pregnancy.

Exercises that you might find useful include:

- Yoga/pilates
- Low impact exercises, such as exercise in water (aqua aerobics)
- Swimming
- Walking
- Stretching
- Pregnancy exercise classes
- Dancing
- Cycling

## General exercise suggestions

- Always ask your doctor or midwife before starting any exercise program
- Remember to warm up before exercising and cool down afterwards
- Drink plenty of water during and after exercising
- Listen to your body and don't over-exert yourself (e.g. unable to speak while exercising)
- Exercise within your level of fitness
- If weight training, always use low weights and avoid lifting heavy weights
- Don't become overheated.

## Exercises to avoid during pregnancy

- Vigorous stretching
- Contact sports, trampolining or activities that carry a risk of falling
- Competition sports (depending on the stage of pregnancy, the level of competition and your level of fitness)
- After about the fourth month of pregnancy, avoid exercises that involve lying on your back. The weight of the baby can compress your major arteries and lead to a fall in blood pressure which may make you feel dizzy or light headed
- In the later stages of pregnancy, avoid activities that involve jolting or jarring the body, such as running and jumping, or those which require rapid changes of direction.

## Sex

As long as you are well and there are no problems with the pregnancy, you can continue with sexual intercourse, unless advised otherwise by your doctor or midwife. Don't worry if you or your partner lose interest in sex for a while at some point; this is normal.

Be assured that there is no way the penis can touch or harm the baby in any way during intercourse.

Around the time of birth, prostaglandins (a substance found in semen) can help ripen the cervix in preparation for birth.

## Healthy eating during pregnancy

Try to maintain a healthy diet with plenty of fresh fruit and vegetables. If you decide to supplement your diet with a multivitamin, make sure that it is recommended for pregnancy and breast feeding. If you are unsure, check with your pharmacist or doctor. If you are a

vegetarian, then you will need to plan your diet carefully to make sure you include sources of protein.

## Folic acid

It is recommended that you take folic acid to minimise the risk of neural tube defects such as spinabifida. Genea recommends you should take 500mcg every day from the time you start trying to get pregnant until the end of your first trimester, however it is best to check this with your own doctor.

Dietary sources of folic acid include green or leafy vegetables (spinach, broccoli, brussel sprouts) and fruits such as oranges, avocados, grapefruit and berries. Folic acid is also found in eggs, yeast extract (e.g. Vegemite), cereals and breads.

## Iron and calcium

The recommended daily intake (RDI) of iron in pregnancy is 22-36mg/day. The best dietary sources of iron during pregnancy are lean red meat, poultry,

fish, dried beans, peas, legumes, nuts and seeds, whole grains and green leafy vegetables. Iron supplements should only be taken when recommended by your doctor. Iron supplements can cause constipation.

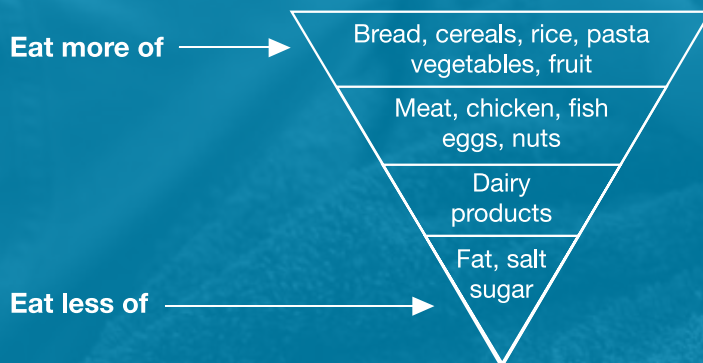
The RDI for calcium in pregnancy is 1100mg/day. During the third trimester, as the baby starts to develop and strengthen its bones, there is a shift of calcium from the mother to the baby. If the mother's diet is lacking in calcium, then the developing baby will draw its calcium from the mother's bones.

Good dietary sources of calcium include milk and milk products, leafy green vegetables, soy and tofu (including soy drinks), fish such as sardines and salmon (with bones), nuts and seeds and calcium fortified foods such as breads, cereals and orange juice. Calcium supplements should only be taken when recommended by your doctor.

## Eating for two

During the first trimester, experts recommend that a woman's energy intake should remain the same as before pregnancy.

During the second and third trimester, the energy intake should increase by approximately 600kJ per day (10%).



Minerals and vitamins	Food sources
Calcium (RDI 1100mg/day)	Milk, hard cheese, yoghurt, almonds, vegetables
Iron (RDI 22-36mg/day)	Chicken, fish, lean red meat, kidney beans, cereals, eggs, rice, wholegrain bread, baked beans, spinach, pasta, dried fruit
Protein	Lean red meat, chicken, beans, hard cheese
Folate (RDI 0.4-0.5mg/day)	Green vegetables, soy beans, cereals, bananas
Complex carbohydrates	Fresh fruit and vegetables, cereals, nuts, pasta, potatoes, rice
Vitamin C (RDI 60mg/day)	Citrus fruits, capsicum (peppers), strawberries, kiwi fruit
Vitamin B1 2	Lean red meat, dairy foods, chicken, fish
Vitamin D	Canned fish, milk, eggs
Omega 3 fatty acids	Salmon, herring, sardines, seeds, almonds
Water	Drink at least 8 glasses of water a day
Zinc (RDI 16mg/day)	Meat, peas

RDI = Recommended Daily Intake

## Food safety during pregnancy

### Food-related illnesses

When you're pregnant, hormonal changes in your body lower your immune system which can make it harder to fight off illness and infections.

Preventing food-related illnesses and protecting yourself from other food risks during pregnancy is therefore extremely important.

Keep cold food cold and in the fridge (below 5°C) and hot food steaming hot (above 60°C) before serving.

## Weight gain during pregnancy

Weight gain during pregnancy varies from woman to woman.

Overweight women may actually lose weight during pregnancy due to changes in their diet, while underweight women may put on as much as 18kg.

A guide to how this weight adds up is below:

Foetus, placenta and amniotic fluid	4.0kg
Uterus and breasts	1.2kg
Blood volume increase	1.2kg
Fat deposited up to	3.4kg
Water retained up to	2.2kg
<b>TOTAL</b>	<b>12kg</b>

This will stop the growth of food poisoning bacteria.

Separate raw and cooked food and don't use the same utensils (especially cutting boards, knives, bowls and plates) for both.



Defrost frozen food in the fridge or microwave. Never leave it out on the bench or in the sink, especially in the sun.

All fruits or skinned foods should be washed thoroughly before consuming.

Cook food thoroughly. Cook poultry and minced meat until well done, right through to the centre.

No pink should be left visible and all juices should be clear.

And remember, the best way to prevent the spread of bacteria is to always wash and dry your hands thoroughly before and after handling food.

## **Fish**

Pregnant women should be careful about which fish they eat. Pregnant women and breast feeding women need to limit their intake of certain species to reduce their mercury intake. The levels of mercury found in Australian fish DO NOT pose a health risk to the general population.

- Avoid fish with higher levels of mercury (shark, rays, swordfish, barramundi, gemfish, orange roughy, ling and southern bluefin tuna)
- Limit other fish (such as tuna steaks) to one portion per week or two 140g cans of tuna per week (smaller tuna contain less mercury).

There is no restriction needed on the amount of salmon, including canned salmon, that can be eaten. Fish is an excellent source of calcium, protein, omega-3 fatty acids and other nutrients.

## **Listeria**

Listeria is a type of bacteria found in some foods which causes a rare but serious infection called listeriosis. It can take up to six weeks for the symptoms to develop and if transmitted to your unborn baby, listeriosis can lead to miscarriage and infections. Listeria can survive for long periods in soil, litter, sewage, silage, vegetation and water. The best way to avoid infection is through hygienic preparation and proper storing and handling of food. Ideally, you should eat only freshly cooked food and well-washed (freshly prepared) fruit and vegetables. Leftovers can be eaten if they are refrigerated promptly and kept no longer than one day.

The following mostly chilled, ready-to-eat foods should be avoided altogether:

- Soft and semi-soft cheese
- Raw seafood
- Soft-serve ice-cream
- Unpasteurised dairy products
- Pâté
- Cold cooked chicken
- Cold processed meats
- Pre-prepared salads and salad bars.

## **Toxoplasmosis**

Toxoplasmosis, while uncommon in pregnant women, can occur if you eat undercooked meats, or unwashed fruit and vegetables (particularly from gardens with household cats). Most commonly, infection is caused by contact with soil contaminated with cat or dog faeces, or from cleaning a cat's litter tray. Toxoplasmosis during pregnancy can lead to brain and birth defects in your unborn baby.

To help protect against toxoplasmosis:

- Don't eat undercooked or raw meat
- Don't drink unpasteurised goat's milk
- Don't handle cat litter
- Always wear gloves when gardening
- Always wash your hands after touching animals.

You can always visit

**[www.foodauthority.nsw.gov.au](http://www.foodauthority.nsw.gov.au)** for the most up to date information regarding pregnancy and food safety.



## Coping with pregnancy symptoms

Pregnancy is a time when many women look and feel particularly well ('pregnancy glow'). But pregnancy is also a time when your body goes through a lot of physical and chemical changes. These changes can result in symptoms which are collectively known as 'common disorders of pregnancy'.

### Morning sickness

Morning sickness is nausea and or vomiting during the first trimester of pregnancy.

Around 50-80% of pregnant women experience nausea and 20% of these women may also experience vomiting.

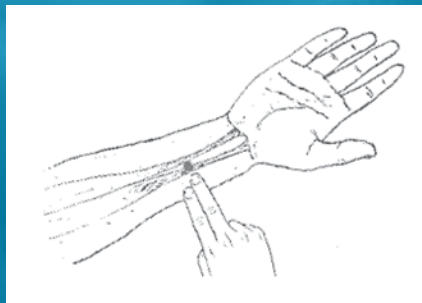
Nausea and vomiting are usually experienced in the mornings, hence the name 'morning sickness'.

Unfortunately these symptoms can continue throughout the day and also beyond the first trimester.

The cause of morning sickness remains unclear. It may be related to the rising levels of hormones, BhCG levels and progesterone, but may also be related to diet.

### Practical tips to reduce morning sickness include:

- Eat small and frequent meals (every 2-3 hours)
- Drink fluids between meals rather than with meals
- Avoid spicy, fatty or fried foods
- Keep a small snack beside your bed (such as a dry biscuit) and eat it before you get out of bed in the morning
- Avoid overeating; a full stomach will worsen the symptoms
- Vitamin B6 (pyridoxine). 25mg has been shown to reduce the symptoms of nausea when taken every 8-12 hours. Vitamin B6 is readily available in supermarkets, health food shops and pharmacies
- Ginger has been used as a medicinal herb for nausea since ancient times. Ginger preparations such as ginger tea and ginger tablets ('Zinax') are readily available in pharmacies and health food shops. Alternatively, a small piece



of fresh ginger steeped in boiling water can be drunk hot or cold

- Acupressure using the P6 (pericardium 6 or Neiguan) point on the wrist has been shown to reduce nausea.

The P6 point is found on the inside of your wrist, 3 finger widths down from the hand, in between the 2 ligaments (see illustration).

Commercial sea sickness bands are available at chemists. You wear these bands around your wrists and they work directly on the P6 point. The bands can be worn all day.

If the symptoms of nausea and vomiting worsen and/or you cannot tolerate fluids, please contact your doctor immediately.

### Frequent urination

Frequent urination is a symptom of early pregnancy. This can be caused by two factors. Firstly, it can be due to the pressure of the expanding uterus against the bladder.

Secondly, it can be due to the high levels of the hormone progesterone in the mother's body.

Progesterone relaxes the bladder muscles, which makes you feel like you need to pass urine more often.

The symptoms of frequent urination should begin to settle down after week 12-14 of pregnancy (into the second



trimester), when the uterus physically moves off the bladder and out from behind the pubic bone in the front of your pelvis.

### **Practical tips to reduce frequent urination include:**

- Pass urine when you have the urge to go. Holding on for long periods can lead to bladder problems later on
- Empty your bladder completely every time you go. Wait for a few seconds after you finish and see if you have to go again before you get up
- Now that you are pregnant, it is a great time to start on your pelvic floor exercises. If you begin to experience other urinary symptoms such as burning when you pass urine, offensive smelling urine or pain, please consult your doctor

### **Headaches**

It is common for women to experience headaches during the first trimester of pregnancy. Headaches can be due to the hormonal changes taking place in the body.

Pregnancy-related headaches should settle down in the second trimester.

Headaches may also be unrelated to pregnancy, such as stress or tension headaches, eye strain, dehydration or posture. Rest and relaxation are the best remedies for headaches.

If your headaches become more frequent or severe, please consult your doctor.

### **Heartburn**

Heartburn in pregnancy occurs when the valve between the stomach and the oesophagus (food pipe) does not prevent the acid in your stomach from rising back up into the oesophagus.

Heartburn is more common during pregnancy because the hormone progesterone relaxes the valve between the stomach and the oesophagus, allowing the acid to rise up and irritate the oesophagus. Progesterone also slows down the time it takes for the stomach to empty, which can cause excess acid build-up.

Practical tips to relieve heartburn include:

- Eat smaller, more frequent meals (every 2-3 hours)
- Don't lay down straight after eating
- Eat a biscuit or something plain if you feel heartburn coming on
- Avoid spicy or greasy foods
- Slippery elm is a herbal preparation which can relieve heartburn and is available at health food shops
- Antacids such as 'Rennie' or 'Frutin antacid' tablets and 'Mylanta' can also provide relief.

However, overuse of antacids may cause constipation.

### **Breast tenderness**

Breast tenderness can be one of the more noticeable signs of early pregnancy. Breasts become tender because the hormones of pregnancy are preparing your breasts for milk production. As hormone levels increase, your breasts may swell or become tender. Your nipples may also become more sensitive and some women notice that their nipples become darker in colour.

### **Constipation**

Constipation is common in pregnancy. Constipation is due to the relaxing effect that the hormone progesterone has on the intestine. This relaxing effect causes your intestine to become sluggish and work less efficiently which leads to constipation.

### **Practical tips to reduce constipation include:**

- Drink at least 8-10 glasses of water per day
- Decrease the amount of caffeine in your diet, such as coffee, cola and tea (caffeine has a dehydrating effect on the body which can lead to constipation)
- Increase the amount of fibre in your diet with fresh fruit and vegetables, nuts, figs, dates or prunes
- Increase the amount of exercise you do (exercise helps stimulate your intestines and may help to relieve constipation)



- Commercial fibre products such as 'Metamucil', 'Normacol granules' and 'Benefibre' are readily available in supermarkets and pharmacies. These are known as 'bulking agents' and help relieve constipation
- Softening agents such as 'Coloxyl' (not 'Coloxyl with senna') may help with constipation by softening the stool and helping it pass through the intestines more easily
- Laxatives such as 'Senekot', 'Duloxalax' or 'Coloxyl with senna' are not recommended in pregnancy and are best avoided.

## Fatigue

Many women complain of feeling very tired in early pregnancy. Fatigue is due to the physical and hormonal changes happening in your body. The only remedy for fatigue is to try to rest when you feel tired. Fatigue will generally decrease as your pregnancy progresses.

## Bleeding

Bleeding in early pregnancy is naturally of concern, but it is also surprisingly common.

'Spotting' is light bleeding from the vagina similar to, but lighter than, a period. It varies in colour from red to brown. While it's not exactly normal, light bleeding or spotting during pregnancy (particularly during the first three months) is not uncommon. Often it turns out to be caused by something minor or is unexplained.

In the very early stages of pregnancy, as the fertilised egg implants there can be a day or two of light bleeding. Later, as the placenta embeds in the lining of the uterus, this can also cause slight bleeding.

Spotting can also be an early sign of miscarriage or an ectopic pregnancy, especially if accompanied by abdominal pain or strong cramping.

A miscarriage is a pregnancy failure that may occur as early as just a few days into the pregnancy or as late as the second trimester.

Miscarriage is more common than people believe. People are often hesitant to share the sorrow of pregnancy loss with friends and family, so the true miscarriage rate may actually be underestimated.

People often delay telling close friends or family about their pregnancy until they're sure they are past the stage at which most miscarriages happen (usually the first three months).

Even in the healthiest couples, miscarriages can occur. The chances of miscarriage vary depending upon a woman's age. At 20 years of age, there is just a 13% chance of miscarriage. At 45, the risk rises to over 50%.

**If you have any bleeding at all, please let your doctor or nurse know.**

## Cramping

Cramping during early pregnancy can be quite unnerving and there is often a fear of miscarriage.

When you are not pregnant, your uterus is continually contracting. When pregnant, the foetus grows and pushes against the walls of your uterus, which causes it to contract. This is normal.

However, if you experience strong cramping (with or without bleeding), please tell your doctor or nurse immediately.

Complementary therapies in pregnancy can be very effective, but it is important that you go to a qualified practitioner who specialises in pregnancy.

Certain prescription medications may have an effect on pregnancy. If in doubt about whether a complementary therapy is safe, talk to your doctor or nurse.



## Complementary therapies

Complementary therapies in pregnancy can be very effective, but it is important that you go to a qualified practitioner who specialises in pregnancy. Certain prescription medications may have an effect on pregnancy. If in doubt about whether a complementary therapy is safe, talk to your doctor or nurse. The following complementary therapies can be of benefit in early pregnancy.

### Massage

Massage is the use of touch to relax muscles, stimulate circulation, lower blood pressure and help with the elimination of wastes and toxins in the body. Research has shown that massage triggers the release of endorphins (the body's 'feel good' chemicals) which relieve pain, improve your mood and help with relaxation. Massage in pregnancy can help relieve backache, muscle tension, stiffness and help reduce anxiety and insomnia. All massages should be conducted by a practitioner who specialises in pregnancy massage.

### Osteopathy

Osteopathy uses manual manipulation to treat bones and joints. Regular osteopathy can help relieve backache, sciatica, groin pain, pubic pain, headaches and carpal tunnel syndrome. Like massage, osteopathy also triggers the release of endorphins.

It is important to tell your practitioner that you are pregnant, as some manipulations may not be safe to perform during pregnancy.

### Acupuncture

Acupuncture works on the principle that energy channels (meridians) flow through your body uninterrupted. If you are 'unwell', the energy becomes blocked, too strong or too weak at certain points. Very fine disposable needles are placed at certain points along the meridians (acupoints) to unblock, reduce or stimulate the energy flow. Acupuncture can be used for a variety of reasons in pregnancy and may be beneficial for morning sickness, constipation or to induce labour at the end of pregnancy.

### Aromatherapy

Aromatherapy is the use of concentrated essential oils to treat certain medical problems. Different essential oils contain different chemicals that have various effects on both your body and your mood. In pregnancy, aromatherapy can help relieve anxiety and backache (with massage). Certain oils (e.g. juniper and myrrh) should be avoided during pregnancy and others should be avoided for the first three months (e.g. chamomile, rosemary and peppermint). It is very important that you see a qualified, registered practitioner of aromatherapy or aromatherapy massage.

### Reflexology

In reflexology a 'map' of the whole body is represented on one or both feet or hands. Various conditions or discomforts can thus be treated via the feet, or it can be used purely for relaxation purposes. Reflexology research is limited but reflexology appears to be effective in the treatment of headaches, constipation and stress related symptoms. The pain relieving and nerve blocking effects of reflexology are documented.

Please ensure that you see a qualified practitioner who knows that you are pregnant before receiving any treatment.

## Things to avoid in pregnancy

### Alcohol

Like many drugs, alcohol crosses the placenta and therefore can affect your unborn baby. Alcohol can cause problems such as miscarriage, premature birth, stillbirth and small babies due to slow growth in pregnancy and foetal alcohol syndrome.

There is no known 'safe' level of alcohol consumption in pregnancy. Whilst drinking less than two drinks per day has not been shown to cause any obvious harm to the foetus, alcohol may have other effects on the foetus that are not obvious. Consequently, there is no time in pregnancy when drinking alcohol should be considered safe.

## **Tobacco**

Smoking in pregnancy is linked to spontaneous miscarriage, low birth weight and premature birth.

The fewer cigarettes you smoke during pregnancy, the better for the baby. Birth weight is less likely to be affected if you stop smoking by the fourth month of pregnancy.

Smoking during pregnancy can affect your unborn baby. Counselling and quitting support services can help you give up smoking and help you to cope with withdrawal symptoms and cravings. If your partner smokes, he or she should also be encouraged to quit.

## **Caffeine**

Caffeine is a stimulant drug. It speeds up the brain and the nervous system. It can raise your heart rate and cause sleeplessness. Caffeine is found in tea, coffee, cocoa, chocolate, energy drinks and cola drinks.

Caffeine in pregnancy is safe in small amounts. Very large amounts of caffeine can lead to miscarriage, premature birth and stillbirth.

Health authorities generally recommend a daily caffeine intake of no more than 200mg during pregnancy. This equals 2-4 cups of instant coffee (60-100mg caffeine) or tea (80-90mg) per day, 1-2 cups of fresh coffee (80-350mg) per day, or 1.5L cola (35mg per 250mL).

## **Emotions during early pregnancy**

Despite the joy of finding out you are pregnant, a positive pregnancy test can also raise a whole new set of challenges and adjustments. Anxiety is normal and understandable in any pregnancy, particularly if you have experienced fertility problems. The first trimester of pregnancy involves rapid physical development of the embryo and changes in a woman's body, which may make some women feel unsettled.

A first pregnancy represents a major life change and will therefore have an impact on you as an individual as well as your relationship with your partner, family and friends.

A sense of relief at having achieved the goal you have been working towards may be accompanied by concerns such

as "is everything normal" or "will I/my body cope".

At a time when you may feel vulnerable because of these 'unknowns', you will also move on from the familiar medical routines of Geneva to the new and unfamiliar territory of obstetric services.

Treatment may have involved a long investment of time, financial sacrifice and emotional upheaval.

Even though you have been looking forward to this time, discovering you are pregnant may not be experienced in the way that you imagined, which can leave you feeling disappointed.

Even though this is a much-wanted result, it may take a while to believe that this is really happening. Some women choose not to tell their family or friends until they feel comfortable. This may take longer for some couples, or one partner may need more time than the other to feel ready to respond to the reactions of family and friends.

If you have had miscarriages or a later loss in the past, only you will know when to invest emotionally in this pregnancy. Other people around you may be excited for you, but you may feel that it is difficult for them to fully understand how this feels.

---

**A first pregnancy represents a major life change and will therefore have an impact on you as an individual as well as your relationship with your partner, family and friends.**

---

---

**Keeping a record of your thoughts, feelings and worries in a journal may help to capture important moments and milestones or just give you an outlet for your emotions.**

---

It is understandable to be cautious about telling others too early, but until you do, you may be cutting yourself off from people who could support you.

You may find that your emotions are more unpredictable. For example, you may cry for no apparent reason. Partners need to be sensitive to this. Even though you have actively sought to achieve a pregnancy, it is normal to have mixed feelings and self doubt “am I ready to be a mother” or “will we be good parents”.

Monitoring your pregnancy through blood tests and ultrasound can be a source of anxiety until you know the results, but these are important milestones and can offer reassurance that the pregnancy is proceeding normally.

Some women feel reassured by the physical symptoms of pregnancy, such as nausea. Other women may experience very little physical discomfort. Remember, it's okay to complain about feeling sick or tired when you are pregnant.

The same coping strategies which have helped to sustain you during your IVF treatment can help you cope at this time as well. Emotionally, you will already have experienced and managed feelings such as frustration at having little control over the outcome of your treatment, or the anxiety and uncertainty that comes from waiting and not knowing.

In the early stages, planning the next step or test can make the adjustment feel more manageable.

Keeping a record of your thoughts, feelings and worries in a journal may help to capture important moments and milestones or just give you an outlet for your emotions.

Relaxation techniques can help you manage stressful times or procedures, so it's good to get into a regular relaxation routine now in preparation for the later stages of pregnancy, labour and beyond. By the second trimester, you may want to resume a modified exercise plan. Strengthening exercises tailored for pregnancy can help you gain confidence in your body's capacity.

Many pregnancy concerns are universal, so having a support network and talking

over your concerns and fears (rather than keeping your feelings to yourself) is important. A good support network of family, friends or online forums can provide you with the opportunity to voice any concerns you may have.

## Pregnancy loss myths

There are a lot of myths and misconceptions surrounding pregnancy loss. With that in mind, it is important to understand the things that DO NOT cause miscarriage.

Miscarriages are NOT caused by:

- Exercising or doing physical work
- Travelling
- Having sex
- Morning sickness
- A fall or a fright
- Stress or worrying
- Having previously had an abortion.



## Symptoms of miscarriage

### The causes of pregnancy loss

There are many causes of pregnancy loss and not all of them are fully understood. Even when all conditions are optimal, in any given month the best chance of conceiving a pregnancy that lasts long enough for you to miss a period is about 20%.

Pregnancies can be lost at anytime between fertilisation and implantation, or between implantation and full term. Pregnancy loss is much more common than many people realise. Most occur within the first 12 weeks (first trimester). Once past 12 weeks, women have an estimated risk of pregnancy loss of just 2%.

About 60% of conceptions will be lost even before a period is missed, usually because of genetic abnormalities. A further 10-15% of conceptions will result in pregnancy loss. More than half of these pregnancy losses are due to a chromosomal abnormality.

In general, about 90% of chromosomally abnormal pregnancies will miscarry in the first trimester, while about 90% of chromosomally normal pregnancies will continue to term.

You can read more about the chromosomal, genetic and age related factors behind pregnancy loss by visiting [genea.com.au/miscarriage](http://genea.com.au/miscarriage)

### Am I having a miscarriage?

The most common symptom of impending miscarriage is vaginal bleeding, but not all pregnancies with bleeding end in miscarriage. Around half of pregnancies with early vaginal bleeding go on to term and end with a healthy baby.

Other possible symptoms of impending miscarriage include lower abdominal cramping and less commonly, a gush of clear fluid from the vagina, with or without bleeding.

If you have any of these symptoms, you should see your doctor or midwife as soon as you can.

Your doctor will want to follow you more closely over the next few days and may recommend an ultrasound scan or blood tests.

## Is it safe to fly while pregnant?

Most airlines are happy to carry pregnant women up to about 28 weeks without any problem. It may be necessary to get a letter from your doctor to confirm that you are healthy and fit.

## Is it safe to have sex during pregnancy?

Sex for most couples is an important aspect of their life together. Many couples are worried that sex will harm the baby or cause a miscarriage. There is no medical evidence to suggest that sex in pregnancy harms the baby. Your baby is well cushioned and protected by the muscles of the wall of the uterus and by the bag of waters. There is also a mucus plug, which seals off the neck of the uterus. No injury to mother or baby will occur during gentle, loving sex.

If you have any bleeding then you should abstain from intercourse.

If you have a history of recurrent miscarriage, your doctor may suggest that you avoid sexual intercourse for the first three months of pregnancy.



Frequently asked questions

**I am 6 weeks pregnant and I am tired all the time. Is there something wrong with me?**

Rest assured, most women at this stage of pregnancy feel extremely tired. There's a good chance that there is absolutely nothing wrong and you are simply experiencing a common symptom of early pregnancy. Tiredness in the first stage of pregnancy is certainly one of the more common complaints that pregnant women mention.

**Can I treat thrush?**

Thrush is a common complaint in pregnancy that is usually treated with an antifungal cream. Buying a topical cream from a pharmacy is usually fine, as long as you let the pharmacist or pharmacy assistant know that you are pregnant. Canesten cream is the preferred treatment for pregnant women and is applied to the affected area. Oral thrush treatments should be avoided during pregnancy.

**Can I have a spa or a sauna?**

Spas, saunas and very hot baths will affect your body temperature and how your blood circulates around your body. In turn, this can affect how blood flows to your baby. Although there is no evidence that this can cause problems, spas, saunas and very hot baths are best avoided during pregnancy. Cold water spas attached to swimming pools are fine to use.

**Can I have a spray tan in pregnancy?**

Self-tanning products are not drugs and come under the category of personal care products which do not need to be tested for safety. However, they can include many different chemicals, some of which are potentially harmful to you or your baby. It is advisable to err on the side of caution and avoid using these products during pregnancy.

**I don't feel sick at all. Does this mean there is something wrong?**

Nausea affects up to 85% of pregnant women, usually in the early months. Fewer women are actually sick. However, some women do not experience any nausea or vomiting. Every pregnancy is different. The absence of nausea or vomiting does not mean there is something wrong.

**I have been in contact with someone with chicken pox. Is this a problem?**

If you know for sure that you have previously had chicken pox, you have nothing to worry about since you will have antibodies to the disease which will be transferred to your baby, thereby protecting it. Coming into contact with chicken pox is only a concern if you have never had the illness yourself. If you are not sure, ask your GP or doctor for a blood test to check your immunity.

**Can I wax my bikini line in pregnancy?**

Waxing in pregnancy is generally safe. For some women, hair growth increases in pregnancy. If you wax yourself at home, always read the directions carefully. Make sure you tell your beauty therapist you are pregnant if you go to a salon.

**I would like to dye my hair. Will this harm my baby?**

The chemicals found in modern hair dyes are not thought to be toxic, either to the mother or the baby, and the method by which you or your hairdresser dyes your hair means that there is little chance of a high level of the chemicals being absorbed into your body. The less contact the dye has with your scalp, the less chance there is of the chemicals being absorbed, so foils may be a better option than having a full colour treatment. The main problem with dyeing your hair in pregnancy is that it may look different to how it normally does after a colour or treatment. This is because your hair changes in thickness and quantity during pregnancy, as well as how it actually absorbs dye.

## Is prenatal massage beneficial for the baby?

Yes absolutely! Studies have shown that when you receive a relaxing prenatal massage, the body releases endorphins. These 'feel good' hormones can cross the placenta and ultimately soothe and relax your baby. For this reason, prenatal massage is great in the third trimester.

## Why are my gums bleeding?

You may notice that your gums become inflamed during pregnancy and they may bleed. This is due to hormonal changes in your body. So you should keep a high standard of oral hygiene and visit your dentist regularly for thorough cleaning and advice on caring for your teeth at home.

## Is dental treatment safe during pregnancy?

Yes. There should be no problems with routine dental treatment. Health authorities advise leaving the replacement of amalgam fillings until after the baby is born.

## I heard you shouldn't have your feet massaged when you are pregnant. Is this true?

No, this is not true. Now more than ever, your feet need relief from joint pressure and swelling.

However, be aware that there are acupressure points around the ankles and feet that, when actively and aggressively worked, can bring on cramping or contractions. This is handy during labour, but those specific places and techniques should be avoided until then.

A pedicure will also include some massage of the feet, ankles and lower leg. Make sure your pedicurist knows which areas to avoid and keeps the massage portion of your pedicure to light pressure and avoids the ankles.

## Around what week should I feel the baby move?

In a first pregnancy, most women feel the baby move between 19 and 22 weeks. Women who have been pregnant before can feel movement as early as 16 weeks. The movements are very faint, and have been described as "feeling like a butterfly fluttering".

## What will be done when I see the doctor/midwife for my visits?

For the first visit, you will have a complete physical examination, including blood tests and a pap smear (unless you have had one recently). Most visits after this are simpler and consist of checking your weight, blood pressure and urine. Then your abdomen will be measured and the doctor/midwife will listen for the baby's heartbeat. If you are having problems or the doctor/midwife detects something concerning, then further examinations or testing may need to be performed. You will be seen more frequently during the later part of your pregnancy, as pregnancy related complications occur more frequently at this time. It may seem as though not much is done during your visits, but the healthcare providers are looking for any warning signs of problems.

## What can I do about my vaginal discharge?

A non-irritating white discharge is normal during pregnancy. To alleviate any discomfort, wear cotton underpants and avoid tight clothing or pantyhose. Wear unscented panty liners and change them often. Tell your doctor or nurse if you have a discharge that causes irritation.



## I like to do regular exercise and sport. Is this okay?

It's good to do some gentle exercise in pregnancy but contact sport and activities that are particularly vigorous should be avoided. Activities such as walking, swimming and prenatal yoga/pilates are good for muscle strength and may help during the birth. Always tell any instructor who is leading you in your activity that you are pregnant and do not do anything that you're not comfortable with. It is not advised to do anything that increases your body temperature, such as saunas, hot spas, running or vigorous aerobics classes. Dancing is fine as long as you're not doing any extreme stretches or movements. Sports such as football, weightlifting and wrestling should be avoided.

## How long should we wait before sharing our news with others?

Most couples choose to share their news once they get the positive result back after their 12 week NT (nuchal translucency) scan. Once you tell one family member the news, be sure to tell all the other key people in your family before they hear it from someone else, as family members would generally prefer to hear the news directly from you.

## What causes pregnancy stretch marks?

The hormone relaxin leads to a reduction in collagen levels in skin fibres which makes skin more prone to developing stretch marks. Skin stretches a lot and quite rapidly during pregnancy and as your weight increases. Your skin and body type largely determine whether you will develop stretch marks. If you gain excessive amounts of weight and your body doesn't have enough elastin and collagen to combat these changes, then you will be likely to develop stretch marks.

## Do stretch marks go away?

No. At first they are reddish or brownish in colour from the growth of tiny blood vessels (the colour depends on your skin tone). Gradually, the lines become shiny and pearl white and narrower after delivery, but they do not vanish entirely. Pregnancy stretch marks are unavoidable and they cannot be removed by special lotions or diets. However, there are some creams that can improve the appearance of the stretch marks.

## Is it normal to get cramping when becoming pregnant after an IVF cycle?

Cramping is common, because your ovaries will often still be quite enlarged and swollen for sometime after you have stopped IVF medications. It does not necessarily mean that anything is wrong; rest and mild pain relievers (e.g. paracetamol) are advised. If you are still taking progesterone pessaries as directed by your doctor in the first weeks of pregnancy, be aware that they may cause cramping in many women. If the cramping becomes very painful or persistent, or if moderate to heavy bleeding occurs with cramping, contact your doctor or midwife.

A black and white photograph capturing a tender moment between a man and a newborn baby. The man, with dark hair and a focused expression, is leaning over the baby. He is wearing a dark, short-sleeved t-shirt. The newborn baby is lying on its back on a white, draped cloth. The baby has dark, curly hair and its arms are slightly raised. The background is softly blurred, suggesting an indoor setting with natural light. The overall mood is intimate and caring.

First trimester: week by week



## Week 4

Your blastocyst is now called an embryo and has begun implantation into the endometrium. It is sending out finger like tendrils into the endometrium which will seek out blood vessels to supply the embryo with nutrition as it continues developing.

The developing placenta has started producing the pregnancy hormone BhCG (Beta human Chorionic Gonadatropin). The corpus luteum continues to produce progesterone which supports your pregnancy.

Your embryo's neural tube has begun to develop (this eventually becomes the brain and nervous system) and the yolk sack is also developing.

### You

You may be beginning to feel some early pregnancy symptoms, such as tiredness, tender breasts or sensitive nipples.

## Week 5

Your embryo has been busily developing. During the 5th week there have been some exciting changes. The heart is beginning to form, dividing into four chambers and is starting to pump blood. The umbilical cord and placenta are developing, along with skeletal bones and vital organs.

The yolk sac continues to provide nutrition and blood to the embryo. The developing placenta continues to produce BhCG.

### Ultrasound view

Often an embryo is not identified at this stage as it is very small. It may be as little as 2-3mm in size and may only be seen whilst scanning transvaginally.

The gestation sac is approximately 0.5cm in diameter and the yolk sac (a halo shaped structure providing nutrient support in early pregnancy) may be visible.

### You

Your early pregnancy symptoms may be becoming a little more frequent now. You may be feeling increasingly tired, a little more nauseous or constipated, with occasional cramps or bloating.

## Week 6

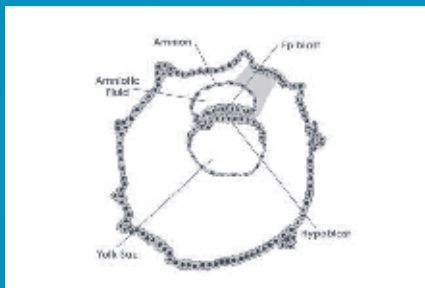
Development is continuing at a rapid pace. In the 6th week, the embryo's eyes are beginning to form, the inner ear is developing and the embryo has grown limb buds, which will go on to form the arms and legs. The embryo's heart is beating at a rate of 90-140 beats per minute, the gastrointestinal tract is developing and little lung buds are present.

The embryo is now able to make jerky movements on its own in response to being stimulated.

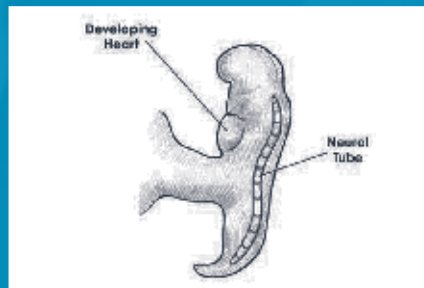
### You

If you are going to have 'morning sickness', then you will probably start to really feel it now. Remember to keep up your fluid intake. You may find yourself needing to pass urine more often than usual. Although it is still some time before you start to 'show', you may have noticed some changes to your body.

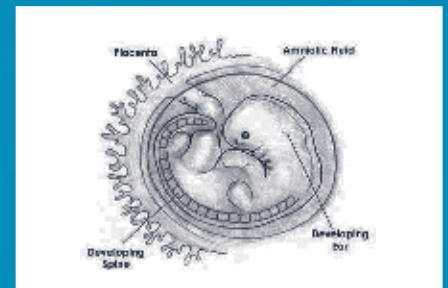
There may be some breast changes and your waist may seem a little thicker and if you weigh yourself there may be an increase in your weight of up to 1kg.



Embryo at 4 weeks



Embryo at 5 weeks



Embryo at 6 weeks

## Week 7

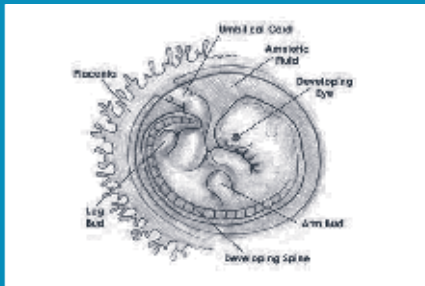
It is now time for your week 7 ultrasound. Your embryo has more than doubled in size in the last week. Your embryo is looking more human. Internal organs such as the pancreas are forming and the limb buds are looking more like arms and legs. Ridges are forming at the ends of the buds that will become the fingers and toes and elbows are beginning to form. Nostrils have now formed and the eyes can be seen below the skin.

### Ultrasound view

What is quite striking at this stage of pregnancy is the demonstration of the embryo's heart beat. The embryo is approximately 6-10mm in size. This is often the time that the pregnancy dating or viability ultrasound is performed.

### You

Your cervix has now developed a mucus plug (called the operculum) which seals off the uterus from the cervix to protect the uterus from infection. You may have noticed that area around your nipples (areola) has started to darken and that your breasts have started to enlarge. How is your morning sickness? If you have morning sickness, it may be quite strong by now. If you are unable to keep fluids down, then you will need to seek medical advice. If you have not yet chosen your obstetric carer or hospital, you should do so now.



Embryo at 7 weeks

## Week 8

Your embryo has now grown and is called a foetus. Your foetus has now developed eyelids. These eyelids will remain closed and fused together until around the 24th week of pregnancy. The middle ear and the external ear are developing.

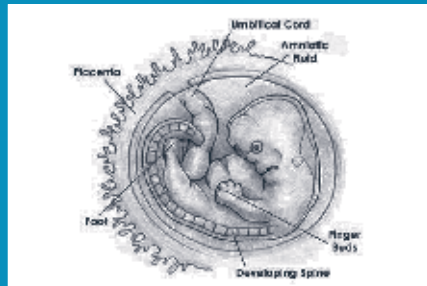
Cartilage and bones are now developing, the limbs are getting longer and the intestines are forming. Veins can now be seen through the skin of the foetus and muscles and nerves are beginning to function.

### Ultrasound view

Via ultrasound, the foetus measures approximately 15mm in size from head to bottom. It may be possible to work out which end is which!

### You

You may be feeling very fatigued now. Your clothes may feel a little tighter. There may be an increase in your vaginal discharge (clear/creamy white). This is completely normal. If the discharge is discoloured, has an offensive or strong odour, then speak to your obstetrician, GP or midwife.



Embryo at 8 weeks

## Week 9

Your foetus continues to grow. It now has ankles, knees, wrists and elbows and is making small movements.

The heart now has four distinct chambers. The yolk sack is beginning to shrink as the placenta starts to function. The ovaries or testes are beginning to develop now as well.

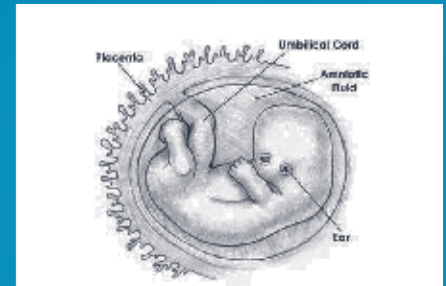
### Ultrasound view

The foetus is about 20mm in length.

### You

You may have noticed that your breasts have increased in size and there are some bluish veins appearing on the surface under the skin.

If you haven't already booked in to an obstetric care giver (obstetrician, midwife or GP), you should do it this week to ensure that everything is prepared.



Embryo at 9 weeks

## Week 10

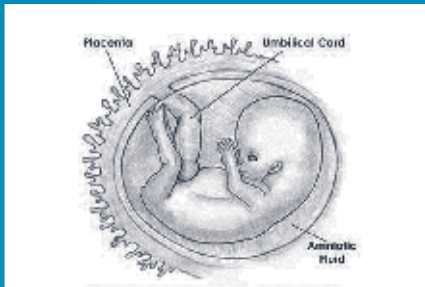
By the end of the 10th week, all of the body organs of the foetus are now in place. They will grow and develop further over the next 30 weeks. Your foetus can now make uncoordinated jerky movements, although you won't feel the movements of the foetus until around the 20th week of pregnancy. The nervous system continues to develop, along with the large muscles. Finger and toe joints are now developed and the eyelids are fully developed, although they will remain fused and closed until the third trimester. The yolk sack is disappearing now as the placenta takes over.

### Ultrasound view

It is now possible to see the tiny limb buds.

### You

If you have been experiencing morning sickness it may be at its worst around this time. You may be experiencing mood changes and vivid dreams due to the peak in levels of the hormone BhCG. Your progesterone level is also high, which may make any constipation worse. Take heart that any morning sickness should start to improve in the following weeks, as the placenta is now functioning and the high levels of BhCG are no longer needed. Hang in there!



Embryo at 10 weeks

## Week 11

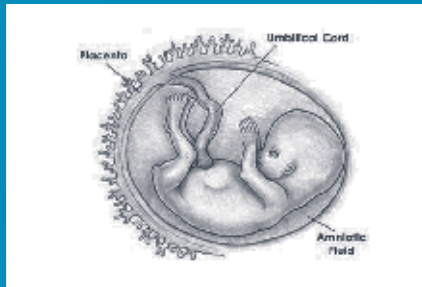
Your foetus has been busy in the past week and it has nearly doubled in size. Not only is it moving around, it is now drinking and swallowing the amniotic fluid and breathing it in to its developing lungs. The kidneys are now functioning and the foetus is able to pass out the amniotic fluid it has been drinking via urination. This process continues up until birth. All the nutrients required by the foetus are now supplied by the functioning placenta. The fingers and toes are now separated.

### Ultrasound view

The foetus is now around 4-5cm from head to bottom. The skull bones are visible, as are the upper and lower limbs. The hands and feet may also be visible. Organs such as the stomach and bladder may also be seen, as well as the area where the umbilical cord enters into the abdomen of the foetus.

### You

Your morning sickness may have begun to settle down now. However, you may have become more sensitive to certain smells, which can make you feel sick. You may have noticed a line developing in the middle of your lower abdomen. It can vary in colour from the palest of pink to dark brown. It is more noticeable if you have darker skin. This is called a 'linea nigra' which is Latin for 'black line'. This linea nigra is caused by your pregnancy hormones and will be there until after the birth of your baby, when it will gradually fade away.



Embryo at 11 weeks

## Week 12

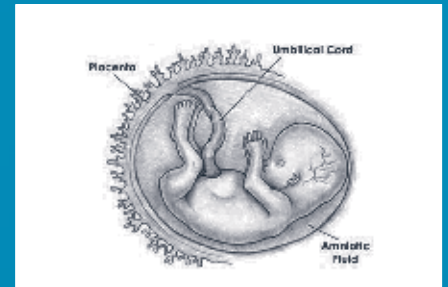
Congratulations, you are at the end of the first trimester. Although movement cannot yet be felt, your foetus is kicking away happily and it can now even curl its toes. Facial muscles are developing and it can make expressions that look like smiling or frowning and it can open and close its mouth. Bones are starting to harden and very fine wisps of hair are developing on the eyebrows and upper lip. The lungs are developing and the foetus is making breathing movements. The intestines are starting to contract ('peristalsis') as the amniotic fluid moves through them.

### Ultrasound view

This time the nuchal translucency (NT) can be measured to give a risk assessment for chromosome abnormality. A transient area of fluid under the skin off the neck of the foetus is tested. This measurement, along with the mother's age, crown-rump length of the foetus and two placental proteins (PAPP-A and free BhCG) can be combined to assess the risk for chromosome abnormality.

### You

Your uterus has grown and it is moving up and out of your pelvis. You may have noticed that you don't have to urinate as frequently because there is now less pressure on your bladder. You may be starting to 'show'. Your obstetrician or midwife will now be able to demonstrate the foetal heartbeat with a Doppler ultrasound.



Embryo at 12 weeks



# Genetic testing

---

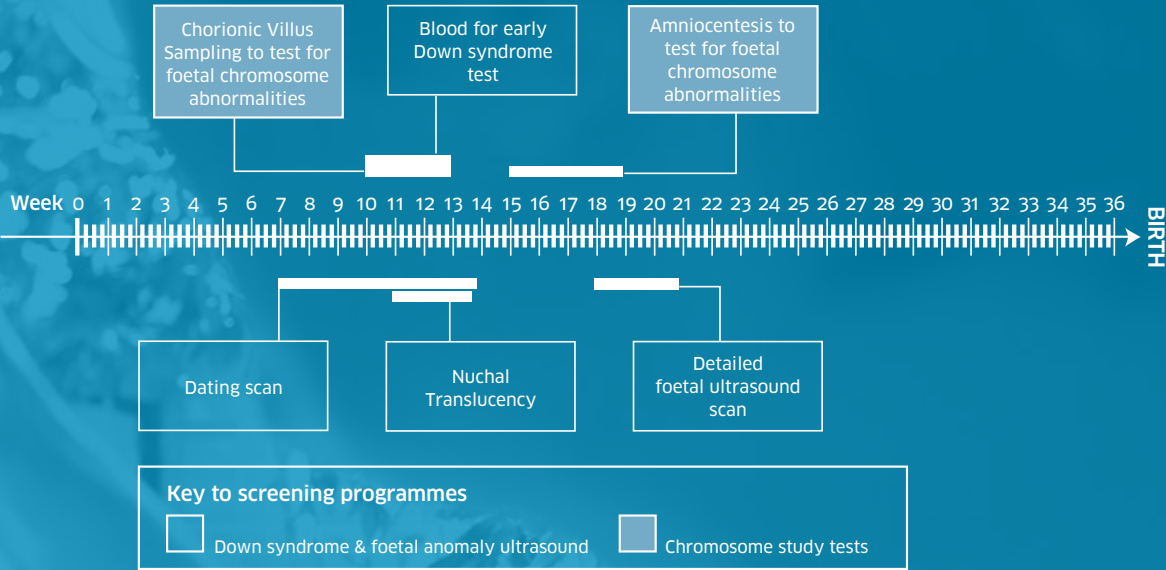
**During your pregnancy, your doctor may recommend a number of tests to make sure your baby is not affected by certain genetic or chromosomal conditions, like Down syndrome.**

---



# Early pregnancy genetic testing

The timeline below shows the common genetic tests that may be carried out over the whole pregnancy.



The following tests may be carried out:

## Dating scan

At around 7-10 weeks, you may have a dating scan which lets your doctor know exactly how many weeks and days you are along in your pregnancy.

This ultrasound examination can also assess the position of the foetus inside the uterus (or outside the uterus, if it is an ectopic pregnancy), the number of foetuses and the presence of a foetal heartbeat.

Apart from dating your pregnancy, at around 10-14 weeks, ultrasound can also assess foetal anatomy, including the nuchal translucency of the neck (NT test).

The results of the NT test can also be used in combination with the results of blood screening tests for Down syndrome to increase the accuracy of genetic and chromosomal tests.



## Down syndrome screening test

At around 10-13 weeks of pregnancy, you may have a blood sample taken to look for the levels of two pregnancy hormones, called PAPP-A and free-BhCG. Pregnancies affected by Down syndrome tend to have lower PAPP-A levels and higher BhCG levels.

The results of this blood test are often used in combination with the results of the nuchal translucency test to determine whether the foetus may be affected by Down syndrome.

The combined screening test using the nuchal translucency results and the PAPP-A and BhCG blood results is often referred to as the NT-Plus test. It can detect around 90% of pregnancies affected by Down syndrome. Women whose result falls into the increased risk zone will be offered further prenatal testing, usually by CVS or amniocentesis.

## Nuchal translucency (NT) test

The NT test is another test used to assess whether the foetus may be affected by Down syndrome.

Towards the end of the 1st trimester of pregnancy, a normal foetus begins to accumulate fluid under the skin behind the head and neck. The presence of excess fluid has been associated with Down syndrome. At around 11-14 weeks, an ultrasound is used to view the tissues in the neck of the foetus to check for the presence of excess fluid.

If there is excess fluid and abnormal levels of the hormones PAPP-A and free-BhCG, then the foetus is at high risk of being affected by Down syndrome. If a high-risk result is returned, your doctor will discuss options for further prenatal diagnostic testing to check the chromosomes of the foetus in order to confirm whether Down syndrome is present.

## Chorionic villus sampling (CVS)

The CVS test involves taking a small sample of the placenta at around 11-13 weeks of pregnancy.

An ultrasound is used to guide a very fine needle through the abdomen (transabdominal CVS) or via the vagina (transvaginal CVS) to remove a small piece of the placenta. The sample of placenta can then be tested for common chromosome abnormalities, including Down syndrome.

The results can take up to 14 days to be available, but a new test called FASTDNA can provide results within 1-2 working days. CVS should only be carried out by a specialist doctor who is skilled in the procedure.

## Amniocentesis

Amniocentesis involves taking a sample of the amniotic fluid which surrounds the foetus to analyse foetal cells which are floating in the fluid.

This test is usually performed around 15-18 weeks of pregnancy and is another method to check for chromosome abnormalities.

An ultrasound is used to guide a very fine needle through the abdominal wall into the amniotic fluid, and about 20mL of fluid is removed for analysis.

The results of the test can take up to 14 days to be available, however, a new test called FASTDNA can provide results within 1-2 working days. Amniocentesis should only be performed by a specialist with experience in this procedure.

## Detailed foetal ultrasound scan

Around week 18-20, you will usually have a detailed foetal ultrasound scan which can be used to assess the physical development of the foetus and the volume of amniotic fluid around the foetus. Because of the increased age of the foetus compared to the earlier dating scan, more details of the foetus are visible.

However, a normal ultrasound examination cannot guarantee a normal foetus because there are some problems which cannot be seen (e.g. chromosome abnormalities).

The sex of the foetus can often be seen at this stage, depending on the position of the foetus within the uterus.





References



# Bibliography

## Websites

genea.com.au  
miscarriage.com.au  
sufw.com.au  
bubhub.com.au  
kidspot.com.au  
kidshealth.org  
betterhealth.vic.gov.au  
foodauthority.nsw.gov.au  
bellybelly.com.au  
motherhood.com.au  
babycenter.com.au  
pregnancy.com.au  
ninemonths.com.au  
essentialbaby.com.au  
birth.com.au  
weightloss-health.com.au  
sportdieticians.com  
bellybaby.com  
bringemup.com

## Books

Jansen R. 'Getting Pregnant' (2003).

Allen and Unwin, Sydney.

NSW Health Department 'Maternity care options' (July 2003).

Quinlan JD, Hill DA. 'Nausea and vomiting in early pregnancy'. American Physician (July 2003); 68:121-128.

Meltzer DL. 'Complementary therapies for nausea and vomiting in early pregnancy'. Family Practice (2000); 17:570-573.

Hopson JL. 'Fetal Psychology'. Psychology Today (Sept-Oct 1998).

Lipson T. 'From conception to birth - our most important journey' (1994). Millennium Books, Sydney.

Nilsson L, Furunghelm M, Ingelman-Sunberg A, Wirsén C. 'A child is born' (1977). Faber and Faber, London.

Stables D. 'Physiology in childbearing' (2000). Harcourt-Baillière Tindall, London.

Week by week embryo images  
courtesy of kidshealth.org



**FREECALL 1800 359 799**  
**genea.com.au**

SYDNEY CBD LIVERPOOL BELLA VISTA MANLY ST LEONARDS GLEBE CANBERRA NEWCASTLE WOLLONGONG GOSFORD  
COFFS HARBOUR LISMORE ORANGE PORT MACQUARIE TAMWORTH MAITLAND PERTH CHRISTCHURCH

This information does not replace medical advice. Medical and scientific information provided in print and electronically by Genea might or might not be relevant to your own circumstances and should always be discussed with your own doctor before you act on it.