A positive pregnancy test: What now?
Melbourne IVF’s guide to early pregnancy
Congratulations on your positive pregnancy test.

With this first hurdle now overcome, your journey through pregnancy is just beginning. This early phase of pregnancy will evoke all sorts of emotions and bring about new considerations.

This booklet aims to provide relevant information relating to the first twelve weeks of your pregnancy and hopes to answer most of your questions. You can obtain additional information from your IVF doctor, the Early Pregnancy Monitoring Nurse at Melbourne IVF or from various external sources such as antenatal clinics, your GP, the Women’s Health Information Centre at the Women’s or the obstetrician who cares for you during your pregnancy.

Dr Lyndon Hale
Medical Director,
Melbourne IVF

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A positive pregnancy test result

Making appointments
At the time of your first pregnancy test, you will be approximately four weeks pregnant.

At this time we expect your Quantitative beta HCG (the pregnancy hormone) to be a level of 100iu (international units) or more. This level indicates that your embryo or embryos have implanted and a pregnancy has begun to develop.

A level of less than 100 usually means a repeat blood test is required to determine the status of your pregnancy and its likelihood of continuing. In addition, you may be required to have further blood tests if you have had a pregnancy loss in the past or are on an artificial cycle.

The IVF nurses will inform your doctor of your results and will organise any additional tests your doctor may request for you. It is important to remember that there is a lot of variation in beta hCG levels when comparing different women at the same stage in pregnancy. Every individual woman and pregnancy produces a unique level of hormone.

Ultrasound appointment
Once you have been advised of your positive pregnancy test result, we will ask you to book an ultrasound appointment with your IVF doctor. This will be performed when you are approximately 6-7 weeks pregnant. At this ultrasound your doctor is looking to identify the following;

• To confirm a pregnancy within the uterus, and exclude a pregnancy outside the uterus eg. in a fallopian tube (an ectopic pregnancy)

• To note the number of pregnancy sacs

• To measure the size of the fetus(s)

• To detect a heartbeat(s)

The location of the pregnancy is important to identify and therefore it is advised to have your first ultrasound between 6-7 weeks gestation and not to wait till 7-8 weeks.

Confirming your dates
It may seem quite strange that your embryo(s) was only transferred 14 days prior to your positive pregnancy test and that you are in fact already approximately four weeks pregnant! The explanation is that natural pregnancy dates are calculated from the first day of your last menstrual period. Consequently it is appropriate to date your pregnancy accordingly so as to optimise your care and advice, and reduce confusion.

With an IVF cycle, your pregnancy dates are calculated based on the day of embryo transfer. Therefore on that day, we calculate that you are 2 weeks and 2 days pregnant.
Possible outcomes at the six week ultrasound

- **Viable clinical pregnancy**
  Pregnancy is visualised within the uterus. Fetal pole seen and is an appropriate size. The fetal heart beat can be measured and is an appropriate rate.

- **Ectopic pregnancy**
  Pregnancy not visualised within the uterus, sometimes detected in a fallopian tube. An ectopic pregnancy occurs when an embryo implants outside the uterus. The usual location is within the fallopian tubes. Ectopic pregnancies occur in approximately 1-2 percent of all IVF pregnancies and often in patients with pre-existing fallopian tube damage.

  The transfer of embryos directly into the uterus does not exclude the possibility of an ectopic pregnancy. After transfer, an embryo develops inside the uterus for up to four days before it implants, therefore it can move up into the fallopian tube during this time.

  The clinical signs of an ectopic pregnancy can include slowly rising pregnancy hormone levels, vaginal bleeding and abdominal pain. Please contact your doctor immediately if you have any concerns. If you have severe pain, you should attend your nearest casualty department.

  Unfortunately an ectopic pregnancy cannot continue and surgery is sometimes necessary. Early diagnosis will help to minimize any tubal damage and the ectopic pregnancy can be removed surgically by laparoscopy (keyhole surgery). This is usually a surgical day procedure. Sometimes medical therapy using a drug called methotrexate may be used to avoid surgery, however close monitoring is still required. Your doctor will advise the most appropriate treatment.

- **Early failed pregnancy**
  An early failed pregnancy is diagnosed when there is evidence of implantation but the pregnancy is no longer developing normally. This can happen with or without having any other symptoms, such as bleeding, that may have indicated the pregnancy was threatened. In this circumstance, your doctor will decide the best treatment for you. This may include a repeat ultrasound and possibly further blood tests. An early failed pregnancy diagnosis may include the following:

  - **Biochemical pregnancy**
    No visualisation of the pregnancy on ultrasound. A biochemical pregnancy occurs when a positive reading of beta hCG (pregnancy hormone) is detected in the blood but fails to rise at the appropriate rate and ultrasound does not show any evidence of a pregnancy. In most cases, the beta hCG level either begins very low or fails to rise appropriately over a number of consecutive days. Early implantation of the embryo has occurred, however for reasons unknown, usually random genetic events, the pregnancy has failed to continue developing.

  - **Blighted ovum**
    Pregnancy sac visualised however no fetus seen. The term blighted ovum refers to a fertilised egg that has developed a placenta and sac, however within that sac the embryo has failed to develop. This is usually first identified at the six week scan, where no fetus is detected. A blighted ovum is not necessarily detected with blood testing. In some cases the pregnancy hormone does rise at the appropriate rate. However in others, the test results may show a slow increase in pregnancy hormone, not reflective of an ongoing pregnancy. A blighted ovum is often due to a random chromosomal abnormality in the embryo. Having one blighted ovum does not necessarily increase
the chance of having another. A blighted ovum will eventually result in a miscarriage, although this may not occur for several weeks. Your doctor will decide the most appropriate treatment for your circumstances, which may include being offered a dilatation and curette (D&C).

• **Missed abortion**
  Pregnancy sac and fetus are visualised but no fetal heart beat is detected. A missed abortion may be detected at the 6-7 week scan or at further scans during the first trimester. A missed abortion is not necessarily detected with blood testing. In some cases the pregnancy hormone does rise at the appropriate rate. However in others, the test results may show a slow increase in pregnancy hormone, not reflective of an ongoing pregnancy. A missed abortion is often due to a random chromosomal abnormality in the embryo. Having one missed abortion does not necessarily increase the chance of having another. A missed abortion will eventually result in a miscarriage, although this may not occur for several weeks. Your doctor will decide the most appropriate treatment for your circumstances, which may include being offered a dilatation and curette (D&C).

• **Counselling support after pregnancy loss**
  If you have been unfortunate enough to suffer an early pregnancy loss, you may be experiencing a variety of reactions and emotions during this time. It is important to remember that all your feelings are normal and there is no ‘right or wrong’ way to feel. Our experienced counsellors are available to support you during this difficult time. You can make an appointment by contacting the counselling department on (03) 9473 4418.

### Choosing an obstetrician & hospital

Even at this early stage, we ask that you make your first obstetric appointment. Choosing a hospital and obstetrician is an important decision. You will need to book an appointment with an obstetrician if having private care. If having public care, you will need to book in with the antenatal clinic at the hospital of your choice.

If you have not yet decided upon an obstetrician, you and your partner may wish to get advice from your IVF doctor about who they would recommend. This can be discussed and arranged at your six week scan with your doctor. Alternatively, you may wish to seek your GP’s advice on obstetric care.

If you have already chosen an obstetrician it is helpful to book an appointment before the six week scan. The obstetrician’s receptionist will then be able to book you into your preferred hospital.

### Your GP

You may wish to make an appointment with your GP to discuss any lifestyle factors that may affect you or your baby throughout your pregnancy. You may also need to organize a referral from your GP if you choose to have private obstetric care.
What to expect at your first obstetric appointment

Your initial obstetric appointment will usually be some time after your six week pregnancy scan at Melbourne IVF, at between six and twelve weeks of pregnancy. Your obstetrician will take your medical and pregnancy history, conduct a general physical examination and discuss with you any concerns that you may have. The information from this consultation will influence the management of your pregnancy and health care before, during and after labour.

Counselling support during early pregnancy

MIVF counsellors are a valuable resource during this time. Having a pregnancy confirmed can be so exciting; however for many this news also evokes a range of emotions such as fear, anxiety and caution. An informal chat with a counsellor can often give you an opportunity to discuss these feelings and develop strategies to cope with this mixture of emotions. Counselling appointments can be made by calling 9473-4418.

Common symptoms of early pregnancy

The following is a list of common symptoms in early pregnancy.

- **Tiredness**
  It is common to feel quite sluggish and overwhelmingly tired during the first twelve weeks of pregnancy. Remember, your body is going through some significant hormonal and physiological changes as it adjusts to pregnancy during this time. It may benefit you to have early nights and even an afternoon rest if possible. This tiredness should ease once you get past the first 12 weeks.

- **Breast tenderness**
  Your breasts may be quite tender, swollen and might start to enlarge. In many cases the veins in the breasts may also become visible. Your nipples may start to darken in colour, become erect and may be quite sensitive. These are all normal changes occurring due to your elevating hormone levels and the implantation of the embryo. These symptoms can vary dramatically between individuals. Tenderness can be alleviated by wearing a good supporting bra. It is important to note that it is common to experience sore breasts one day and for the symptoms to be completely gone the next. Symptoms in early pregnancy come and go in waves.

- **Nausea & vomiting**
  Nausea and vomiting can be experienced as early as one week into a pregnancy. Many women experience illness (morning sickness) in the morning, some in the afternoon and others feel the nausea continuously throughout the day. Some women experience morning sickness for just a few weeks and for others it can continue up to thirteen weeks. In some cases, pregnancy can cause women to feel quite unwell for the entire pregnancy. It is common for the nausea to be so intense that vomiting occurs.
Strategies for coping with morning sickness:

1 Sipping fluids
Water, dry ginger ale or flat lemonade sipped slowly and frequently in small amounts may help settle your stomach. Ginger tablets and Vitamin B6 are also simple remedies you can try.

2 Nourishing fluids
If you can control the nausea, try to move onto taking sips of more nourishing fluids like chilled and diluted fruit juices, diluted vegetable juices and light soup, For example: one part juice to two parts water.

3 Snacking
Introduction of small amounts of food. If you experience nausea and vomiting first thing in the morning, keep some dry salty biscuits or dried fruits next to your bed and before you get up eat something while you’re still lying down in bed. This may help relieve the nausea. Try to have a light breakfast (for example cereal and low fat milk or toast and honey).

4 Frequent meals
- Eat small amounts frequently (every one to two hours). Do not let your stomach get too full or too empty. Try to have at least six small meals spread throughout the day rather than three large meals.
- Eat foods which are easy to digest and provide energy, such as plain biscuits, toast with honey or vegemite, jelly, dry cereal or stewed fruit
- Eat and drink slowly. Rushing can cause vomiting. Continue to sip dry ginger ale or flat lemonade if you still feel nauseated.
- Avoid drinking liquids with meals.

5 Introduction of light meals
Consider the following:
- Cold foods and drinks are often easier to tolerate than hot.
- Omlette, milkshakes, custard and fruit are nourishing. Low fat varieties may be easier to tolerate than full fat.
- Continue to eat six small meals a day rather than two or three larger meals.
- Try to have a nourishing snack before bedtime.

The ideal management of morning sickness is with the appropriate diet. Drugs should only be considered as a last resort.

Tips
Ginger can be taken in the form of ginger beer, ginger ale or ginger tablets. Vitamin B6 50mg morning and evening may help morning sickness.

Do not worry if you cannot tolerate the ideal diet recommended in pregnancy. The baby will take all the nutrients it needs from you.

Eat what you feel like and can tolerate initially. When you are feeling better you can move to a healthy well balanced diet. Be reassured that the evidence suggests that vomiting and weight loss does not affect the outcome of the pregnancy, unless there is an associated significant illness.
• **Frequent urination**
  Pregnancy causes the uterus to swell and it will start to enlarge immediately for the growing fetus. The uterus puts pressure on the bladder, making you feel the urge to urinate more frequently. It is important to remember not to cut back on your fluid intake. If you experience any burning or stinging with your urinary frequency, or if there is any indication of blood in your urine, visit your GP immediately and increase your fluid intake. Urine infections are more commonly experienced in pregnancy.

• **Constipation**
  Pregnancy hormones will slow down bowel functions to give maximum absorption of vitamins and nutrients; consequently constipation is very common in pregnancy. To combat constipation try to increase your fluid intake (water) and ensure your diet includes plenty of fruit and vegetables, whole grain foods and cereals. Unfortunately for some, constipation does tend to get worse as the pregnancy progresses. If constipation persists, you may wish to discuss your condition with your pharmacist or doctor. Under no circumstances should you use strong laxatives. Psyllium is a natural fibre supplement you may wish to try.

• **Dizziness / fainting**
  When standing for a prolonged period with no movement you may feel dizzy or even faint. The growing uterus compresses the major arteries in your legs which cause your blood pressure to drop making you feel extremely light headed. Dizziness is quite commonly experienced by pregnant women, but any persistent fainting needs to be discussed with your doctor.

• **Back aches & pains**
  Abdominal discomfort and back pain are common symptoms of early pregnancy. Sometimes, after a stimulated cycle these symptoms may be caused by enlarged ovaries, while similar symptoms may also be associated with the stretching of the ligaments supporting the growing uterus.

  If the pain is persistent it is important to discuss this with your doctor. While we recommend not taking any drugs during pregnancy, do not hesitate to take the recommended doses of paracetomol for fevers and headaches. Panadol and panadiene are both quite safe in pregnancy when used according to the manufacturer’s directions.

• **Heartburn**
  A heightened hormone level causes the relaxation of the muscle at the top of the stomach as well as causing digestion to slow down. This in turn increases stomach acid which causes heartburn. To alleviate heartburn it is advised that you elevate the head of your bed, and avoid consuming large meals at night. Simple antacids may help but get advice from your pharmacist or doctor about specific brands.

• **Vaginal bleeding**
  Sometimes bleeding can occur in early pregnancy and in many instances does not lead to miscarriage. It is important to monitor any bleeding and to contact the nursing department or your doctor if you are concerned. If you are on progesterone pessaries and bright red bleeding occurs, please contact the nursing department or your doctor. Severe abdominal pain should be reported to your doctor or the nursing department immediately.
General health and lifestyle

Drugs
This word covers a broad range of natural and man-made substances, such as:

- Prescribed medications
- Over the counter medications – medicines purchased from the chemist or supermarket without a script
- Natural supplements – products purchased from a naturopath, health food shop ie: herbs, vitamins
- Alcohol
- Smoking
- Recreational drugs

Prescribed medications
Ensure that your obstetrician is aware of all your current medications and discuss whether these are safe to take whilst pregnant. Ideally, it is recommended that no medications be taken during pregnancy; however we recognize that in some situations medications may be necessary.

Over the counter medications
Many medications are not suitable during pregnancy. Whether medicines are obtained from a pharmacy, supermarket, health food shop or any other place, please discuss each with your doctor or pharmacist.

Paracetomol is safe to use whilst pregnant in the recommended doses and may be helpful to reduce fever. You should contact your GP if fever persists.

For more information about drugs in pregnancy and lactation, call or visit the Drug Information Service at The Women’s Hospital. Located on the Cnr Flemington Road and Grattan Street, Parkville. Operating hours are Monday to Friday 9.00am to 5.00pm. (03) 8345 3190.

A booklet can also be purchased at the Women’s Pharmacy and the Women’s Health Information Centre at The Women’s.

Natural supplements
By assuming that natural remedies and medicines are safe, you may be making an understandable mistake. Unfortunately, the word “natural” does not always mean safe when taken in pregnancy. Most herbal and homeopathic remedies have not been tested to determine their safety during pregnancy. Some products include ingredients suspected of causing potential harm to you and your baby. While many of these dietary supplements are safe, there are some hazardous ones. Talking to a pharmacist, your doctor or a naturopath will enable you to make the best decisions about the most appropriate and safe supplements to take.
**Vitamin A**

In excess, vitamin A can be harmful to a developing baby. There is little danger in obtaining excess vitamin A from foods consumed, however it is often present in multivitamin supplements. Consequently, it is essential to take multivitamins specifically formulated for pregnancy.

**Alcohol**

There is evidence that alcohol during pregnancy can be harmful. Extremely large quantities of alcohol in particular in the first few months of pregnancy, can lead to abnormalities in the baby, as well as growth restriction. An extremely large and constant intake of alcohol may result in the baby developing a condition called fetal alcohol syndrome. For further information and support, please contact the Women’s Alcohol and Drug Service at The Women’s Hospital on (03) 8345 3190.

**Smoking**

Smoking has been shown to have adverse effects on pregnancy. For this reason, we hope that you are not smoking. If you are a smoker, we recommend that you stop. The carbon monoxide in cigarette smoke displaces oxygen and restricts uterine blood flow, therefore limiting the amount of nutrients reaching your baby. Research has shown that smoking while pregnant increases the risk of miscarriage, stillbirth, neonatal death and low weight babies. The more you smoke the greater the risk.

Babies and children exposed to cigarette smoke are more likely to suffer bronchitis, pneumonia, chest infections and sudden infant death syndrome (SIDS), than babies who are not exposed to cigarette smoke.

For further support and information call Quit on 13 18 48.

**Sex**

Unless your doctor advises you otherwise, sex is safe during pregnancy for both you and your baby. Many couples fear that sex can be harmful during pregnancy or even hurt their baby or cause miscarriage. Worries like these are completely normal and very common, but unfounded. Be assured your baby is well protected by the uterus and a closed cervix. In addition, many women find intercourse uncomfortable in early pregnancy. This can be due to tender breasts, enlarged ovaries and a vagina that becomes ultra sensitive and engorged due to pregnancy hormones. It is important to note that some woman may experience brown discharge post intercourse. This is usually no cause for concern, however if the discharge is bright red or greater than a 50 cent piece contact your doctor.

**Exercise**

Regular and moderate exercise is recommended as part of a healthy lifestyle. Good exercise patterns developed before pregnancy should assist your body in coping with the demands of pregnancy, childbirth and the postnatal period. Moderate low impact exercise during pregnancy can be beneficial for you and your baby. In addition, some women find meditation, yoga, pilates, swimming and relaxation classes helpful. Certain contact sports (eg: weightlifting, boxing, judo) may be unsuitable for pregnant women, so it is advisable to look into this. Check with your doctor if you are unsure of any aspect of exercise during pregnancy.
Some important tips to remember when exercising:

- Avoid overheating
- Avoid saunas and steam baths. Pregnant women should limit the time of exposure to high temperature
- Drink plenty of water
- Do your pelvic floor exercises

There are many ante-natal exercise programs run in the community and at your obstetric care facility.

**Diet**

Aim to eat a well balanced diet including a wide range of foods from each of the main food groups. Be sure to include plenty of fresh fruits and vegetables in combination with dairy foods. If your intake of dairy foods is poor, calcium supplements are suggested. By maintaining a balanced diet throughout the pregnancy you will be helping to ensure an adequate intake of all vital nutrients and other beneficial factors from food.

In general, pregnant women only need vitamin supplements if the diet is inadequate, or if other medical conditions affect nutrition.

**Caffeine & Guarana**

Modest coffee intake has not been shown to be harmful in pregnancy. Therefore if you really enjoy your morning cup of coffee, there is no reason to abstain from this. The effect of high caffeine intake on pregnancy is unclear, therefore excessive caffeine intake from coffee, tea and some soft drinks should be avoided.

Conversely, Guarana is not recommended in pregnancy. Energy drinks such as Red Bull and V contain this substance and should be avoided.

**Folate**

Folate, also known as folic acid is especially important in pre-conception and for the first three months of pregnancy as it reduces a baby’s risk of developing neural tube defects such as spina bifida. Foods rich in folate include green leafy vegetables, cereals with added folate, fruit, dried beans and peas. Folate supplements come in a preparation of 500 micrograms (mcgs) and can be purchased from the chemist, health food store or the supermarket.

If you have a family history of spina bifida, have epilepsy or are taking an anti-epileptic medication, then a folate dose of 500 milligrams (mgs) is recommended.

**Air travel**

In general, air travel throughout pregnancy is safe. Women with high risk pregnancies such as twin pregnancies, placental abnormalities, hypertension, gestational diabetes or any other such complication should consult their doctor before flying. Long distance air travel while pregnant may put you at greater risk of developing deep vein thrombosis (DVT). It may be worth considering the timing of travel for before or after your pregnancy. Some airlines will not allow women to travel after 28 weeks gestation; therefore this should be checked with the airline when booking your flight.
If planning to fly long distances in the first trimester it may be worthwhile to check with your doctor first.

**Listeriosis**

Listeria infection is an extremely uncommon but serious illness that can be caused by contaminated food and can be harmful during pregnancy. Good hygiene is extremely important when preparing and storing food.

The following are specific guidelines to help minimize the risk of listeria contamination:

- Wash your hands before preparing food and between handling raw and ready to eat foods.
- Ensure all raw food from animal sources ie; meat, fish, poultry and eggs are cooked thoroughly.
- Wash raw vegetables before eating.
- Keep all foods covered.
- Place all cooked foods in the refrigerator within one hour of cooking.
- DO NOT reheat foods more than once and ensure they are thoroughly reheated before consuming.
- Store uncooked meats separately from vegetables, cooked foods and ready-to-eat foods.
- Avoid consumption of raw (unpasteurised) milk or foods made from raw milk. (See below for more details)
- Do not handle cooked foods with the same utensils used on raw foods. Wash all knives and cutting boards after handling uncooked foods to avoid cross contamination of cooked and ready-to-eat food.

In Australia there are approximately 10 out of 250,000 pregnancies each year, complicated by Listeriosis.

**High risk foods**

- Ready to eat seafood such as smoked fish, mussels and oysters or raw seafood such as sushi and sashimi.
- Soft cheeses such as feta, brie, camembert, ricotta and blue vein. (If cooked and served hot these cheeses are safe to eat)
- Pate’
- Ready to eat foods, including leftover meats that have been refrigerated for more than one day.
- Pre-cooked meat products which are eaten without further cooking such as cooked diced chicken, sliced processed meats and pates (as used in sandwich shops).
- Pre-prepared and stored salads with or without sauces and mayonnaise, including coleslaw and fruit salad.
- Drinks made from fresh fruit and vegetables where the preparation and washing procedures of the ingredients are unknown.
- Soft serve ice creams
Animals
Toxoplasmosis is an infection caused by a parasite found in some cat faeces (most commonly young cats). This infection can affect a developing baby if contracted during pregnancy. There are several food sanitation and safety steps you can take to prevent becoming infected. These include:

• Wearing gloves when you are gardening or doing anything outdoors that involves handling soil or sand.
• Washing your hands well with soap and water after outdoor activities, especially before preparing any food.
• Wearing gloves and taking caution when handling litter boxes.
• Washing vegetables thoroughly and avoiding uncooked meats and unpasteurised milk.

It is safe to have a cat during your pregnancy as long as you follow the guidelines outlined above. If you have any concerns, speak to your doctor. A simple blood test will identify whether you are immune to toxoplasmosis or not.

Miscarriage
A miscarriage is a pregnancy loss before 20 weeks gestation, with most miscarriages occurring within the first twelve weeks of pregnancy. Approximately 20% of all pregnancies end in miscarriage. The chance of miscarriage increases with maternal age. There is an estimated 15-20% miscarriage rate for women under the age of 35, while women in the 35-45 age groups have a 20-40% chance of miscarriage, and women over 45 years of age have a 50% chance of pregnancy loss. There is no significant difference in miscarriage rates between assisted conception and naturally conceived pregnancies.

There is no way to prevent an impending miscarriage from happening. It is for the most part predetermined, and is not a result of too much exercise, lifting, having sex, eating the wrong foods or drinking alcohol. The main cause for miscarriage is random chromosomal errors causing abnormal development in the fetus.

Your doctor will decide the most appropriate management for you. This management will depend on how many weeks pregnant you are and the type of pregnancy loss you have had. In some cases, attempting to test the products of conception for possible chromosome abnormalities may be of advantage and you may wish to discuss this with your doctor.

After a miscarriage it is important to have regular blood tests to ensure your pregnancy hormone (beta hCG) levels are decreasing. The blood tests will usually be completed weekly until there is no pregnancy hormone remaining in your blood. We will advise you of your levels at each stage and tell you when you can cease having these tests taken. You can not undergo further IVF cycles if pregnancy hormone is still present in your blood.

Recommencing treatment after pregnancy loss
Remember it is important for you to be emotionally ready before you proceed with another cycle or treatment. Physically your body is ready to commence treatment 4-6 weeks after a miscarriage. There is usually no reason why you have to wait an extended period of time prior to recommencing treatment. Speak to your doctor about an appropriate time to begin again.
**Anti D**

All humans have one of four main blood groups. These are A, B, AB and O. Accompanying these blood groups is blood typing called Rhesus factor which is the presence of a Rhesus antigen on the blood cell. If the antigen is present you are Rhesus positive and if it is absent you are Rhesus negative. For example, the blood groups A+ve means you are Rhesus positive and A-ve means Rhesus negative. In a pregnancy where the mother is Rhesus negative and the father is Rhesus positive, it is possible that the fetus will also be Rhesus positive. If this is the case, the mother’s immune system can recognise the fetal cells as foreign and develop Rhesus D antibodies. Although there are few problems with this scenario in the first pregnancy, if these antibodies remain in the woman’s system, they can cause problems in subsequent pregnancies. Women who have suffered a miscarriage and have a rhesus negative blood group are in some cases required to have an injection of Anti D within 72 hours of the bleeding. Anti D is recommended in the following circumstances:

- Miscarriage that occurs before twelve weeks of pregnancy
- Pregnancy loss where a D&C was performed to remove the products of conception
- Ectopic pregnancy

Your doctor will advise you whether you require an Anti D injection.

**Special considerations for older mothers**

Complications within pregnancy rise as maternal age increases. Older mothers are at a higher risk of spontaneous miscarriage as well as a higher risk of carrying a baby with chromosomal abnormalities such as Down’s syndrome. Not everyone wishes to have testing performed for these problems. If you do decide to have testing undertaken, you will need to see your obstetrician early in your pregnancy to discuss these tests and their risks, especially as some should be performed as early as 10-12 weeks of pregnancy (see section on antenatal tests).

Older mothers may be more likely to have preexisting medical problems. Hopefully, these have been well controlled before pregnancy, however you may need to see your physician to make some alterations to any medications.

Studies suggest that older mothers are at greater risk of developing some obstetric complications, such as early delivery, smaller babies and difficulties in labour that may lead to caesarean section being necessary.

All of the reported problems are manageable with good obstetric care.

**Antenatal screening**

In addition to the information provided in this booklet, there is also a broad range of literature relating to antenatal screening which you can access through the Women’s Imaging Centre at the Freemasons Hospital or at the Women’s Health Information Centre at the RWH.
**Nuchal translucency**
This is a screening ultrasound used to assess the risk of your fetus having Down Syndrome. It is completed between 11-13 weeks of pregnancy. This ultrasound measures the amount of fluid in the skin at the back of the neck called nuchal translucency. In approximately 80% of Down Syndrome fetuses the nuchal translucency is thicker than that in the majority of normal fetuses. 
This scan will not provide a definitive diagnosis of Down Syndrome. Even if the scan appears normal, it does not eliminate the possibility that the fetus may be affected. The detection rate of Down Syndrome can be increased to close to 90% by having the first trimester maternal serum screening, in combination with the nuchal translucency scan.

**Maternal serum screening**
This is a simple blood test that is best performed between 10-12 weeks gestation, but can be completed up to 17 weeks. It is used to measure several proteins found in a pregnant women’s blood. There is a specific pattern of measurement in these proteins that has been associated with a Down Syndrome fetus.

**Ultrasound**
A detailed ultrasound at 19-20 weeks gestation is considered the most important diagnostic scan. This scan will show a detailed anatomical assessment of the fetus and provide valuable information regarding the development of your baby. Your obstetrician can organise these screening blood tests and ultrasounds should you wish to have them completed.

**Chorionic villus sampling**
A prenatal diagnostic procedure used to detect chromosomal abnormalities in the fetus. Chorionic villus sampling (CVS) is performed by removing a small sample of tissue from the placenta using ultrasound guidance. This tissue is obtained with a fine needle either vaginally or abdominally between 10 -14 weeks gestation. There is a small risk of miscarriage and other complications with CVS, therefore careful consideration and discussion with your obstetrician is necessary to ensure the benefits outweigh the risks.

**Amniocentesis**
Like CVS, amniocentesis is another prenatal diagnostic procedure used to detect chromosomal abnormalities in the fetus. This test is performed using ultrasound guidance to insert a fine needle into the abdomen and aspirating a small amount of amniotic fluid from around the fetus. This test is usually completed between 15 - 20 weeks. There is a small risk of miscarriage and other complications with amniocentesis, therefore careful consideration and discussion with your obstetrician is necessary to ensure the benefits outweigh the risks.

If you require further information about any of the antenatal tests, please discuss with your obstetrician.
Melbourne IVF wishes to acknowledge the following publications for providing the foundation of the material used in this guide.

**Preparing for Pregnancy**
The Women’s Hospital, Victoria

**Early Pregnancy Loss – It’s not just a miscarriage**
Sands, Victoria

**Listeria – The Facts**
Department of Health Services, Victoria

**Medications in Pregnancy**
Herbal Preparations in Pregnancy & Breastfeeding The Women’s Hospital Drug Information Centre, Victoria

**Ultrasound Screen for Down Syndrome**
Chorionic Villus Sampling & Amniocentesis Women’s Imaging Centre, Victoria

**Smoking & Pregnancy**
Quit, Victoria

### References

### Resources - Victoria

Australian Breast Feeding Association Counselling Service
Telephone 03 9885 0855
Toll Free 1300 302 201

Family Planning Victoria
Telephone 03 9257 0100 / 1800 013 952

Maternal and Child Health Services
24 Hour Emergency Helpline
Telephone 13 2229

Panda Post Natal Depression Association Counselling Service
Telephone Support
Telephone 03 9428 4600

Drug Information Service (RWH)
Telephone 03 8345 3190

SANDS (Stillborn and Neonatal Death Support)
Telephone 03 9899 0218

Women’s Health Information Centre (RWH)
Telephone 03 8345 3044
Toll Free 1800 442 007

Vic Health

Quit
Telephone 13 1848
Melbourne IVF

Phone
New Public Enquiries 1800 111 IVF (483)
Melbourne IVF Reception (03) 9473 4444

www.mivf.com.au