

# Thinking about pregnancy

## Introduction

Planning your pregnancy should include getting the best available information before you conceive. It is possible to improve your health before conception, minimise the risk to your baby and for some women increase the likelihood of conceiving.<sup>1</sup>

## Where can I get expert advice before I conceive?

If you are planning to become pregnant, your local doctor can:

- identify and manage possible problems for you and your baby based on your personal and family health history. One way of doing this is to identify family, medical, obstetric, drug, nutritional and social histories
- provide information about the health services and choices of pregnancy care
- help you to achieve your ideal body weight
- find out your level of protection against German measles (Rubella) and Chickenpox (Varicella)
- screen for conditions such as hepatitis B, hepatitis C and human immunodeficiency virus (HIV)
- refer you for counselling if genetic (or inherited) conditions have been identified
- advise on starting folate at least one month before becoming pregnant
- review any medicines you may be taking
- start appropriate management, including early referral to a specialist, where a pre-existing condition has been found.

## Fertility and becoming pregnant

Becoming more aware of your menstrual cycles and changes in mucus may assist you in predicting your fertility cycle.

There are a number of reasons why some women have difficulties becoming pregnant. Some causes include problems with:

- ovulation
- ovaries
- fallopian tubes
- the uterus
- the cervix
- endometriosis.

Some of the causes for men include:

- blockage or absence of any section of the male reproductive tract (e.g. due to vasectomy or injury)
- sperm quality
- functioning of the male reproductive tract (e.g. impotence, testicular problems, other medical condition, production of antibodies which hinder the activity of sperm)
- hormonal problems.

Sometimes the cause of the delay cannot be explained.

If you are experiencing difficulty in becoming pregnant, talk with your local doctor who can refer you for tests to find out the cause of your problem.

## Folate/folic acid and pregnancy

Folate or folic acid is a group B vitamin found in a variety of foods. Everyone needs folate in their diet. It is recommended that if you are intending to become pregnant that you increase your daily intake of folate for **at least one month prior to pregnancy**, and during the first three months of pregnancy (first trimester). By taking a daily supplement containing 0.5mg folic acid or eating foods rich in folate, you will lower the risk of your baby having neural tube defects such as spina bifida.<sup>2</sup> Some foods have folate added (e.g. breakfast cereals) and other foods are rich in folate (e.g. asparagus, spinach, oranges, bananas). Dietary folate is not fully protective for women with an increased risk of having a baby with a neural tube defect. For example women who have had a previous baby with a

neural tube defect are recommended to have a supplement of 5mg folic acid daily.

### **Genetic advice (advice on inheritable conditions)**

Genetic Health Services Victoria provide expert clinical, diagnostic, and counselling services to families and individuals on genetic or inheritable conditions and fetal abnormalities. These services are provided at metropolitan, rural and regional hospitals. A doctor may refer you to [Genetic Health Services Victoria](#) or you can make the contact yourself.

In addition, all pregnant women in Victoria are offered a blood test as part of screening for Down Syndrome.

### **Protection against German Measles (Rubella)**

German measles (Rubella) is a viral infection that normally occurs as a mild childhood disease. However, if you contract rubella in early pregnancy, your baby will become infected in 90 per cent of cases.<sup>3</sup> This causes congenital rubella syndrome, including deafness, blindness, heart defects and intellectual disabilities in babies.

In Australia, rubella vaccine is routinely available as MMR (tri-valent vaccine consisting of measles-mumps-rubella vaccines), and is given as part of the standard vaccination schedule at 12 months and 10-16 years.<sup>3</sup>

If you are thinking of becoming pregnant or early in your pregnancy, your doctor/midwife can check your immunity through a blood test. Even if you have previously been vaccinated against rubella you may not be immune. Women not immune are advised to be immunised at least three months before becoming pregnant. If you are pregnant and not immune, you are advised during pregnancy to avoid contact with anyone who has rubella. You are also advised to arrange immunisation soon after you have your baby, and should subsequently avoid pregnancy for three months.<sup>4</sup>

### **Protection against Chickenpox (Varicella)**

Chickenpox is caused by the varicella zoster virus. It results in a mild infection that is common in childhood. 90 per cent of pregnant women are immune and although contact with chickenpox is common during pregnancy, few women contract the infection during pregnancy (approximately three in 1000 pregnancies are complicated by this infection).

If you have chickenpox during pregnancy for the first time it can cause serious illnesses including pneumonia, hepatitis and encephalitis. In addition, chickenpox can affect the baby. Infection before 20 weeks can cause the baby to have scarring of the skin, eye defects, small limbs and neurological abnormalities. Infection between 20 and 36 weeks gestation may result in shingles in the first few years of infant life. Infection up to 4 weeks prior to the birth may result in chickenpox in early newborn life. If the baby is born within 7 days of the mother contracting the disease the effects to the baby may be more severe.<sup>5</sup>

Shingles occurs in people who have previously had chickenpox. However, it does not appear to cause complications to the unborn baby.<sup>5</sup>

If you are thinking of becoming pregnant or early in your pregnancy, your doctor/midwife can check your immunity via a blood test. If you are not immune and not pregnant, you may decide to be immunised before you become pregnant. If you are not immune you are advised to avoid contact with known cases of chickenpox during pregnancy, and contact your doctor/midwife/hospital as soon as possible if you do have exposure to anyone with chickenpox. You will be advised to have an injection of varicella zoster immune globulin (VZIG).<sup>5</sup>

## Parvovirus (Slapped cheek syndrome)

Parvovirus is a virus that lives in red blood cells. Infection with parvovirus results in a common childhood condition called *erythema infectiosum*, also known as 'slapped cheek syndrome'. In Victoria about 60 per cent of women at child bearing age (20-39 years) are immune, and between 1.5 and 15 per cent of women at child bearing age contract the infection each year.<sup>6</sup>

You can have parvovirus without being aware. The main risk is miscarriage when infection occurs between nine and 20 weeks' gestation. However, the risk is considered low and pregnant women are not routinely excluded from working with children during epidemics.<sup>6</sup>

If you are exposed to parvovirus contact your doctor/midwife/hospital to find out whether you are immune.

## I think I'm pregnant!

You may have experienced some or all of the following common signs and symptoms of early pregnancy:

- missed one or more periods
- tender/sore breasts
- tiredness
- nausea/vomiting
- fainting/dizziness.

Your pregnancy can be reliably confirmed through either a blood or urine test. You can purchase a pregnancy test kit from a chemist or supermarket. The test kit identifies a hormone called Beta-HCG in your urine and is an indicator for pregnancy from the time of the first missed menstrual period.

If you believe you are pregnant, you are advised to attend a doctor/midwife who will:

- confirm your pregnancy
- offer appropriate pregnancy or pre birth screening
- check you are in good health for pregnancy
- identify any potential problems.

Your doctor/midwife can also:

- discuss what options of pregnancy care are available to you
- develop a plan for identified problems
- refer you for specialist review, genetic counselling and/or other support services if necessary.

At the first visit to your local doctor/midwife or hospital, you will be asked questions about your health and any previous pregnancies. It is recommended that all women have a general medical history taken, have a physical examination early in their pregnancy and an assessment of their risk factors.<sup>7</sup>

## Smoking and pregnancy

Smoking in pregnancy can result in a number of poor outcomes for you and your baby including increased risk of miscarriage, premature birth, a small baby for gestational age, cleft lip and/or palate, bleeding in pregnancy and stillbirth. See Bleeding in the second half of pregnancy in pregnancy and sudden infant death syndrome (SIDS).<sup>8</sup>

To reduce the risk of having a baby that is small for gestational age and/or premature birth from exposure to maternal smoking, health care professionals will offer to assist you to stop smoking. If you are pregnant and are smoking, talk with your doctor/midwife about how to quit.

About one third of Australian women are smokers when they become pregnant. Although some stop smoking, some continue. The greatest benefits to your baby are achieved by quitting for the whole pregnancy, but quitting at any time will produce some benefits.<sup>8</sup>

For information and support to quit smoking, contact the [Quitline](http://quitline.org.au) (Tel: 131 848).

## Alcohol and pregnancy

You are advised to be careful about alcohol consumption in pregnancy. Drinking alcohol during pregnancy has been associated with miscarriage, babies which are small for gestational age and intellectual impairment in children (known as fetal alcohol syndrome).<sup>9</sup>

Although heavy drinking and 'binge' drinking are more likely to cause fetal alcohol syndrome, it is recommended that you ideally, cease drinking alcohol during pregnancy or limit your intake to one or two standard drinks once or twice a week.<sup>9</sup>

Advice and support regarding alcohol consumption is available by contacting:

- Direct Line - drug and alcohol counselling, information and referral service (Tel: 1800 136 385)
- Australian Drug Foundation Drug Information Line (Tel: 1300 858 584)
- Women's Alcohol and Drug Service, the Royal Women's Hospital Tel: (03) 9344 3631.

## Drug and medicine use

During the first three months of pregnancy, drugs/medicines can interfere with the development of your baby's organs.<sup>9</sup>

Drugs and medicines include those medications prescribed by doctors, bought without a prescription from the chemist or supermarket (pain killers, cold and flu medicines, laxatives, vitamins and herbal preparations) or obtained illegally.

If you are prescribed a drug/medicine, or are thinking of taking a non-prescription medicine before becoming pregnant or anytime during pregnancy, you are advised to ask your pharmacist or doctor whether it is safe for you and your baby.

## Complementary therapies and medicines

The popularity of complementary therapies and medicines in pregnancy has been increasing during recent years. These include acupuncture, chiropractic, osteopathy, naturopathy and meditation, and a wide range of non-prescription products such as herbal preparations, homoeopathic remedies, nutritional and other supplements.

However, there is insufficient evidence to ensure the safety of such therapies and medicines in pregnancy. Before using complementary therapies and medicines during pregnancy and breastfeeding, talk with your doctor/midwife. Many plants are toxic and have been known to interact with other conventional medications.<sup>8</sup>

If using complementary therapies, it is always recommended that you check with your prescriber that the product is safe during pregnancy or when breastfeeding check that any herbal preparation you plan to take is on the Australian Register of Therapeutic Goods.

## Diet and nutrition

It is essential you have a healthy and nutritional diet during pregnancy. This will contribute to your health as well as the growth and development of your baby. This does not mean you need to greatly increase the amount of food you eat, but it does mean you need to focus on the quality and variety of foods you eat.

Dietary advice in pregnancy is available from your doctor, midwife or a dietitian. Accredited practicing dietitians provide expert advice on healthy eating for pregnancy and any dietary problems that you may experience.

The [Dietitians Association of Australia](#) provides information based on evidence about diet in pregnancy. They recommend that you eat:

- a variety of foods from each of the food groups
- food rich in nutrients such as protein, iron, calcium, and other vitamins and minerals

- plenty of fruit, vegetables, wholegrain breads and cereals
- reasonable quantities of low fat dairy food and lean meats
- minimal foods containing lots of fat, sugar and salt.<sup>10</sup>

Fish has a number of nutritional benefits. However, because mercury levels in some fish tend to be higher than in others, it is recommended that in becoming pregnant and during pregnancy, you limit consumption of certain fish to a maximum of four portions (150gm per portion) per week. These fish include shark/flake, ray, swordfish, barramundi, gemfish, orange roughy, ling, southern blue fin tuna and fish caught in geothermal waters. You can eat other fish, including canned tuna, as often as you like. Where possible eat a variety of fish.<sup>11</sup>

## Supplements in pregnancy

Healthy eating is recommended for women during pregnancy. Supplementing your diet should be done in consultation with your doctor, midwife or accredited dietitian.

During pregnancy:

- if you have low intake of Vitamin D or have minimal exposure to the sun (e.g. stay indoors or wear clothing that leaves little exposed skin), you may require extra Vitamin D during pregnancy and while breastfeeding<sup>8</sup>
- if you have a risk of developing high blood pressure or pre-eclampsia and have a low dietary calcium intake, you should receive calcium supplementation during pregnancy<sup>12</sup>
- there is insufficient evidence to recommend using high-protein dietary supplements to improve fetal growth
- additional iron is not routinely prescribed unless there is a need to build up iron stores. If you lack iron you may develop anaemia, which leaves you pale and feeling tired, lethargic and short of breath.<sup>8</sup>

## Careful eating

There are two infections that can be contracted from eating contaminated food, and although these infections are rare, they can harm your unborn baby.

**Toxoplasmosis** is caused by a parasite called *toxoplasma gondii*. This parasite is found in raw meat and in the faeces of cats that eat raw meat. It is a common infection and healthy people with this infection do not always feel ill.<sup>8</sup>

When a pregnant woman has toxoplasmosis, the infection can cross the placenta and result in miscarriage, damage to the baby's nervous system but rarely death of the child/infant. In Australia there have been very few cases of newborn babies affected by toxoplasmosis. In those cases, most of the babies had either a very mild illness or no symptoms at all.<sup>8</sup>

If you have contact with cats or raw meat it is important you minimise the risk of toxoplasmosis by:

- using good food handling techniques, including hand washing
- cleaning any soil from food for eating
- cooking meat right through
- ensuring cat faeces and litter is disposed of daily
- where possible avoid cleaning litter trays and contact with cats
- wearing gloves when in contact with soil and/or cleaning out the 'kitty litter'
- washing hands thoroughly after gardening, cleaning out 'kitty litter' or handling pets.<sup>8</sup>

**Listeria** infection is caused by bacteria called *listeria monocytogene*. These bacteria have been found in raw meat, raw vegetables and some processed foods. Although listeria infection is relatively uncommon, pregnant women or their unborn babies are at particular risk.<sup>8</sup>

If a pregnant woman has listeria, even mild infection can result in miscarriage, premature birth, or stillbirth. Infection of fetuses and

newborn babies will result in death of the baby in 30 and 50 per cent of cases.

You can help prevent listeria infection by:

- good food handling techniques, including hand washing
- eating safe foods (such as freshly cooked food, hard cheese, canned and pickled food)
- avoiding high risk foods (including soft cheeses, pre-prepared coleslaw and pate)
- avoiding contact with any animal afterbirth.

## Dental care

Dental care is important in pregnancy because you are more likely to develop:

- gingivitis, where gums are more prone to becoming red, swollen and bleed easily during pregnancy. This is thought to be partly the effect of hormones (oestrogen and progesterone) and/or poor oral hygiene
- periodontal disease or bacterial infection of the gums, which has been shown to be associated with premature and low birth weight infants.<sup>13</sup>

You can help prevent or minimise these problems by:

- frequent oral hygiene including brushing and flossing after meals and before going to bed
- regular dental checkups prior to and during pregnancy to monitor the health of your teeth and gums.

## References

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<sup>1</sup> Guidelines for Shared Maternity Care Affiliates, Mercy Hospital for Women, The Royal Women's Hospital and Sunshine Hospital (2002).

<sup>2</sup> Lumley J, Watson L, Watson M, Bower C. Periconceptional supplementation with folate and/or multivitamins for preventing neural tube defects (Cochrane Review). In: *The Cochrane Library*, Issue 2, 2003. Oxford: Update Software.

<sup>3</sup> Australian Government Department of Health and Ageing fact sheet: *Rubella*. <http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-communic-factsheets-rubella.htm>

<sup>4</sup> MIMS on line

<sup>5</sup> Royal College of Obstetricians and Gynaecologists (RCOG). (2007) Clinical Green Top Guidelines: *Chickenpox in pregnancy* (13).

<sup>6</sup> Gilbert GL, 2000 Parvovirus B19 infection and its significance in pregnancy in *ISSN* 24: pp1-20.

<sup>7</sup> Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG). (2001) WPI-10: *Statement on Antenatal care in Australian public hospitals*.

<sup>8</sup> National Institute for Health and Clinical Excellence, 2008 Antenatal care: routine care for the healthy pregnant woman.

<sup>9</sup> NSW Health 2006, National clinical guidelines for the management of drug use during pregnancy, birth and the early development years of the newborn.

<sup>10</sup> Dietitians Association of Australia, Nutrition A-Z: *Pregnancy*

<sup>11</sup> Food standards Australian New Zealand: Mercury in fish: *Advisory statement for pregnant women*.

<sup>12</sup> Hofmeyr GJ, Atallah, AN, Duley L, 2006. Calcium supplementation during pregnancy for preventing hypertensive disorders and related problems (Cochrane Review) in *Cochrane Database of Systematic Reviews*, Issue 3.

<sup>13</sup> American Academy of Periodontology: Health information for the Public: *Oral health advice for mothers to be*.