

Having a healthy baby

A guide to planning and managing pregnancy for women with type 2 diabetes



Type 2 diabetes

1300 136 588

ndss.com.au

The National Diabetes Services Scheme (NDSS) is an initiative of the Australian Government administered by Diabetes Australia.

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Disclaimer: This information booklet is intended as a guide only. It should not replace individual medical advice and if you have any concerns about your health or further questions, you should raise them with your doctor.

About this booklet

This booklet is for women with type 2 diabetes who are planning a pregnancy now or in the future. It provides information on preparing for pregnancy as well as tips on how to manage diabetes during pregnancy and once the baby is born.

When you have diabetes, it is important to plan and prepare for pregnancy before you start trying for a baby. It is recommended that you have a review of your diabetes, and your general health, at least three to six months beforehand.

In this booklet we focus on the needs of women who have type 2 diabetes and are planning a pregnancy or who are already pregnant. Separate booklets are available from the National Diabetes Services Scheme (NDSS) for women with type 1 diabetes or gestational diabetes.

There are a number of risks during pregnancy for both mother and baby, but with careful planning, as well as support from a team specialising in diabetes in pregnancy, women with diabetes will usually have healthy pregnancies and healthy babies.

Encourage your partner, family and friends to read this booklet as well, to help them understand more about diabetes and pregnancy. If you have any questions or need more information, contact your endocrinologist, GP, obstetrician, diabetes educator or dietitian.



Preparing for a healthy baby

Women with diabetes can have a healthy baby, but there are a number of extra risks associated with having diabetes during pregnancy. To reduce diabetes related risks, it is best that you become pregnant at a time when your diabetes is well managed and there are no other health issues. It is important that you plan your pregnancy and seek out specialist pre-pregnancy care during this planning period.

The best preparation for a healthy pregnancy starts with getting the right advice and assistance before you become pregnant. The first eight weeks of pregnancy is the time when a baby's major organs develop, so it is important for your blood glucose levels to be as close to target as possible when you conceive and in the first part of your pregnancy. This reduces the risk of health problems in the developing baby and the chances of an early miscarriage.

There are other aspects of planning for a healthy pregnancy too, such as screening for diabetes complications, taking vitamin supplements, a review of your current medications and having routine blood tests. These topics will be discussed later in this booklet.

Make an appointment with your diabetes health professionals as soon as you start thinking about having a baby. If you find you are pregnant sooner than you intended, organise an immediate appointment at your closest maternity hospital, or see an endocrinologist, a diabetes educator or a diabetes nurse practitioner with expertise in managing diabetes and pregnancy. They will work with you to achieve the best outcome for you and your baby.

If you are not sure who to contact, or if you live in a rural area where there are limited services, ask your GP about the best options for managing your diabetes during pregnancy. This may include shared care between local services and a diabetes and pregnancy team in a major hospital. Services such as Telehealth may be an option to link your local health professionals with specialist diabetes in pregnancy services.



Preparing for a healthy baby

Your diabetes in pregnancy team

There are specialised services to support women with diabetes both when planning a pregnancy and during pregnancy.

All major hospitals with maternity services in Australia can provide information about pregnancy and diabetes, and some also have specialised diabetes in pregnancy services. You may also have the option of seeing a private endocrinologist with expertise in diabetes in pregnancy. If you live in a rural area or small town, consider travelling to a major centre that has a diabetes in pregnancy service - especially if you have had any complications from diabetes. It is a good idea to attend pre-pregnancy care at least three to six months before attempting to conceive.

Your diabetes in pregnancy team will be made up of a range of health professionals who can help you plan your pregnancy.

This may include:

- endocrinologist
(diabetes specialist doctor)
- specialist obstetrician
(pregnancy doctor)
- diabetes educator or
diabetes nurse practitioner
- dietitian
- general practitioner (GP)
- midwife
- psychologist
- social worker.



If needed, you may also be referred to other specialists, such as a renal (kidney) physician or an ophthalmologist (eye specialist).

Talk to your GP about accessing these health professionals in your area or phone the NDSS Infoline on 1300 136 588 for information about services available in your state or territory.

Preparing for a healthy baby

Planning and preparing for pregnancy

Contraception

Timing your pregnancy is important. Contraception enables you to plan your pregnancy around your personal circumstances, general health and diabetes management.

No single method of contraception is perfect for everyone. Different methods suit different couples and there are many forms of contraception suitable for women with diabetes. It is best to discuss the most appropriate contraception for your individual needs with your GP, endocrinologist or obstetrician.

Blood glucose targets

Research has shown that if you manage your blood glucose levels well at the time you conceive and during the first two months of pregnancy, it will help to lower the risk of miscarriage as well as birth defects in your baby.

Your diabetes in pregnancy team will discuss appropriate blood glucose targets with you and a recommended haemoglobin A1c (HbA1c). This is a measure of your average blood glucose levels over the past three months.

Current guidelines recommend a HbA1c of 6% (42mmol/mol) or less before falling pregnant. This can be difficult to achieve, but do your best to get as close to that level as possible. Seek as much support as you can from your diabetes health professionals to help you achieve the best possible management of your diabetes.

“Find yourself a really good team of health professionals who know about pregnancy and diabetes.”

Preparing for a healthy baby

Folate

Folate (also known as folic acid) is a vitamin that is very important to reduce the risk of certain birth defects of the brain and spine. Folate can be found in a varied diet that includes green leafy vegetables, fruit, breads and cereals, nuts and legumes. However, it is difficult to get enough folate for pregnancy from your diet alone. Taking folic acid supplements has been shown to reduce the risk of birth defects for all women, not just those with diabetes. Ideally, you would start taking your folic acid supplement at least one month before your pregnancy, and continue taking it throughout the first trimester (the first three months of pregnancy).

It is recommended that women who have diabetes take a higher dose of folic acid than other women, because of the increased risk of birth defects. In Australia, current guidelines recommend 5mg of folic acid per day, but talk to your doctor, they may suggest you take one 5mg tablet each day, or just a half depending on other pregnancy supplements you may be taking.

Talk to your diabetes health professionals about taking a folic acid supplement. You do not need a prescription to buy folic acid, but make sure you tell the pharmacist you need to buy the 5mg tablet, not the usual 0.5mg tablet.



Preparing for a healthy baby

Review of medications

Many medications will need to be stopped or changed before pregnancy and then only re-started after pregnancy, or sometimes not until after you have finished breastfeeding. This is because they have not been shown to be safe during pregnancy or breastfeeding.

All medications should be reviewed once you are planning a pregnancy, or as soon as possible after you find out you are pregnant. This includes all diabetes medications, as well as any tablets you are taking for cholesterol or blood pressure.



Many women with type 2 diabetes will have been prescribed metformin. This is generally considered to be a safe medication during pregnancy and many doctors will recommend that you continue to take metformin during your pregnancy. Discuss this with your doctor or diabetes in pregnancy team. All other diabetes medications (apart from insulin) should be stopped before pregnancy or as soon as you know you are pregnant.

Insulin

If you are taking insulin to manage your diabetes, it is important to discuss your diabetes management with your health professionals when planning your pregnancy. This includes the types of insulin you are currently using and the advantages and disadvantages of different types during pregnancy. Also discuss your insulin dose and the number of injections you need to help you manage your diabetes during pregnancy.

Occasionally, women with type 2 diabetes may choose to use an insulin pump while pregnant. However, pumps are generally only used by women with type 2 diabetes in special circumstances. For more information about insulin pumps, including cost and availability, talk to your diabetes health professionals.

Preparing for a healthy baby

Diabetes complications screening

Before conceiving, it is important to be checked for any diabetes-related complications in your kidneys, eyes and nerves. You will need to have your kidneys and eyes checked during your pregnancy as well.

Kidneys

Your doctor will ask you to have a urine test to check the amount of protein/albumin passing through your kidneys. You will also have a blood test to check the function of your kidneys. If there are any problems, you may need to see a kidney specialist before falling pregnant and you will need to be monitored carefully during your pregnancy (especially in relation to your blood pressure). Even minor kidney problems (such as slightly increased levels of albumin or protein in the urine) can increase the risk of developing high blood pressure during pregnancy. If you have any problems with your kidneys during pregnancy, your baby's growth will need to be monitored carefully.



Eyes

Make an appointment to see an optometrist or an ophthalmologist (eye specialist) to have the back of your eyes checked. Make sure they know you have diabetes. If you have damage to the small blood vessels at the back of the eye (diabetic retinopathy), this needs to be stable before you conceive. Ask your eye specialist if you need any treatment before you fall pregnant.

Eye problems may appear or worsen during pregnancy, so you will need to have your eyes checked regularly throughout your pregnancy and then again a couple of months after you have had the baby. Usually, eye problems that occur during pregnancy improve after your baby is born.

Preparing for a healthy baby

Nerves

Your podiatrist, diabetes educator or doctor can test for nerve damage in your feet (peripheral neuropathy), using simple physical examinations, such as a tuning fork or a 'monofilament' that measures pressure sensation.

Cardiovascular

You may be advised to have an assessment of your cardiac risk before you fall pregnant. This will depend on your risk factors and any history of heart disease.

Blood pressure

If you have high blood pressure, you should see your doctor before falling pregnant, especially if you are taking any medication.

High blood pressure needs special attention, as it increases the chance of problems in pregnancy for you and your baby. You may need to stop certain blood pressure medications or change your medications before you conceive.



Preparing for a healthy baby

A healthy weight

Aim for a healthy weight before becoming pregnant. A healthy eating plan and regular physical activity can help with weight management.

The weight gain recommended for pregnancy depends on your weight before you conceive. It is a good idea to have a review with a dietitian for guidance on pregnancy-specific nutrition needs and your personal weight gain target. There is some weight gain associated with a healthy pregnancy and it is generally not advisable to aim to lose weight while you are pregnant. However, you also need to take care not to 'eat for two'.

The table below shows the recommended weight gain targets for pregnancy depending on your pre-pregnancy weight range (calculated using Body Mass Index or BMI = weight (kg) / height (m) x height (m)).

Pre-pregnancy BMI	Weight range	Recommended pregnancy weight gain
< 18.5	Underweight	12.5 – 18kg
18.5 – 24.9	Healthy weight	11.5 – 16kg
25 – 29.9	Overweight	7 – 11.5kg
> 30	Obese	5 – 9kg

Institute of Medicine, 2009



Preparing for a healthy baby

Nutrient supplements

In addition to a folic acid supplement, it is recommended that all pregnant women take an iodine supplement of 150 micrograms during pregnancy and breastfeeding (unless you have an overactive thyroid or Graves disease).

Your doctor will also check the amount of iron in your blood and advise whether you need to take an iron supplement, (most women will in the later part of their pregnancy). If you are concerned about other nutrients, speak to your dietitian about your usual dietary intake and ask whether you need multivitamins or other micronutrient supplementation.

Immunisation

Your GP will arrange blood tests to check your immunity to Rubella (German measles) and Varicella (chickenpox). Contracting Rubella when you are pregnant can lead to blindness, deafness and abnormalities in your baby. If you are not immune, you should be vaccinated at least one month before becoming pregnant. Also discuss flu and whooping cough vaccinations with your doctor.

Blood tests

Your doctor will check your thyroid function and may do some additional tests such as checking your vitamin D level.

Smoking, drugs and alcohol

Smoking increases the risk of damage to blood vessels in the heart, brain, feet and kidneys, especially in people with diabetes. Smoking also harms the growth and development of your unborn baby. You can ask your diabetes in pregnancy team about strategies to quit, or you can call the QUITLINE on 13 78 48 or visit www.quit.org.au. Alcohol and recreational drugs increase the risk of miscarriage and damage to your baby and should be avoided.

Hard work but worth it!

For some women, it can be demanding and stressful to achieve blood glucose levels within the target range before conceiving, and then to maintain good diabetes management throughout the early stages of pregnancy.

This is likely to be a challenging period of your life, so be sure to seek the support and understanding you need from people close to you, as well as from health professionals.

Preparing for a healthy baby

ACTION:

If you are thinking about having a baby, the following checklist summarises the advice in this section for you.

- **Contraception and general pregnancy advice:** Ask your GP, endocrinologist or obstetrician for help to choose the best contraception for you and your partner when planning your pregnancy.
- **Referrals:** Ask your GP for referrals to diabetes in pregnancy specialists.
- **Your team:** Put together and meet your diabetes in pregnancy team.
- **Blood glucose targets:** Aim for an HbA1c of 6% (42mmol/mol) or less before falling pregnant. Discuss individual targets with your health professionals.
- **Folic acid supplements:** Start taking high-dose folic acid for at least one month before becoming pregnant and continue during the first three months of pregnancy.
- **Medications:** Ask your doctor to review all the medications you are taking to check if they are safe to take during pregnancy.
- **Insulin:** If you are taking insulin, ask your doctor whether your insulin treatment plan should be reviewed.
- **Vaccinations:** Make sure your Rubella and chickenpox vaccinations are up to date.
- **Blood pressure:** Check and stabilise your blood pressure before becoming pregnant.
- **Diabetes complications:** Have a full complications screening done before you fall pregnant. If necessary, have any complications treated and stabilised before falling pregnant.
- **Weight management:** Aim for a healthy weight before pregnancy as well as the most appropriate weight gain for you during pregnancy.
- **Smoking:** If you are a smoker, stop smoking – ask your health professionals for help.
- **Alcohol and other drugs:** Avoid alcohol and other drugs completely during pregnancy.
- **Diet and supplements:** Take a supplement that contains iodine and check with your doctor and/or dietitian whether you need to take a multivitamin or other supplements.

Eating well and physical activity

A healthy eating plan is essential for you and your baby, and it is also important to stay physically active throughout your pregnancy.

Healthy eating

Pregnancy is a good time to update your knowledge of food and nutrition. Your food choices are important for providing nourishment for both you and your baby. Your eating plan is also an integral part of your diabetes management and general health.

Make an appointment with a dietitian to discuss food choices that will help you manage your diabetes during pregnancy. Your dietitian can advise you on weight gain targets during your pregnancy, carbohydrate counting and the best carbohydrate food choices for managing blood glucose levels. If you are taking insulin, discuss how to adjust insulin to match your carbohydrate intake.

Aside from carbohydrates, there are other nutrients that need special attention in the lead-up to and during your pregnancy, including protein, iron, iodine, calcium and folate. Your dietitian can guide you on the best food choices to meet these extra nutritional needs for pregnancy.



Eating well and physical activity

Protecting yourself from exposure to high-risk foods that can cause infections and harm your developing baby is very important. These infections can be caused by listeria, salmonella and toxoplasmosis, which can be present in high risk foods.

Certain types of fish also need to be limited during pregnancy due to their high mercury content. Seek advice from your dietitian and/or state health department for guidelines on food safety during pregnancy.

Alcohol can cause damage to an unborn baby, and should be avoided throughout your pregnancy.

A dietitian can discuss the most appropriate foods for you during your pregnancy, provide information on foods to avoid or limit, give you advice on pregnancy weight gain and work with you to help you manage your diabetes during pregnancy.

“Once you know you have a life growing inside you, your focus changes. Be prepared to actually WANT to do lots of blood tests, eat properly and exercise.”



Eating well and physical activity



Physical activity

Becoming pregnant does not mean you have to give up exercise or other physical activity. In fact, women with diabetes benefit from regular physical activity in pregnancy. It is a great way to relax and spend time with family and friends, as well as an essential tool for diabetes management.

Regular physical activity helps to maintain a healthy weight during pregnancy and has many additional health benefits, including managing pregnancy symptoms, such as lower back pain, nausea, heartburn, constipation and sleep disruptions.

Physical activity is also a great mood regulator and can help you return to a healthy weight after you have had your baby. Your goal, while pregnant, should be to maintain your general health and fitness.

Pregnancy is not the time to begin a new or strenuous exercise routine. If you are already active, continue your activities as long as it is comfortable to do so. However, it is best to avoid contact sports during pregnancy.

Discuss your current activities with your GP or other health professionals.

Eating well and physical activity

HELPFUL HINTS: Physical activity

You can enjoy physical activity by incorporating activity into your daily routine. Start with 10 minutes, two or three times a day. For example, you could:

- walk your dog (or a friend's dog)
- join a pregnancy aqua fitness class
- swim or walk in water
- try pregnancy yoga or pilates
- walk along the beach or in the park
- walk your children to and from school
- take the family to the park for a ball game
- find out about low-impact aerobics or light resistance gym programs available in your area.

Remember that you will need to consider the effect of physical activity on your blood glucose levels. Exercise generally lowers blood glucose levels, so if you are taking insulin you may need to make adjustments to your dose. It is important to discuss physical activity with your health professionals.



Diabetes and your pregnancy

There are a number of ways that pregnancy will affect your body and your diabetes. There are also some additional risks associated with pregnancy for women with diabetes. Looking after yourself and your diabetes can help to reduce these risks.

Blood glucose targets

Your diabetes in pregnancy team will discuss individual blood glucose targets with you.

Current Australian guidelines for pregnant women with type 1 or type 2 diabetes are shown in the table below.

Your team may also advise you to monitor your blood glucose levels at other times.

Fasting/before meals:	4.0 – 5.5 mmol/L
2 hours after each meal:	5.5 – 7.0 mmol/L



Diabetes and your pregnancy

Blood glucose monitoring

It is essential to monitor your blood glucose levels frequently during your pregnancy. You will be asked to monitor before meals and one to two hours after meals. You may, at times, be advised to do some extra monitoring, such as before bed and overnight.

Monitoring will help you and your doctor to get a better understanding of your blood glucose levels so you can achieve the best possible management of your diabetes. If you are taking insulin, monitoring can help you make decisions about adjusting insulin doses. Extra monitoring can also help you avoid hypos and big swings in your blood glucose levels.

Your diabetes in pregnancy team will discuss your blood glucose levels with you at each appointment. Writing these in a record book or testing diary can help you and your team better understand patterns in your blood glucose levels. Be sure to take your record book and meter with you to appointments.

Continuous blood glucose monitoring

Continuous Glucose Monitoring (CGM) may be suggested during your pregnancy. CGM uses a sensor placed under the skin to continually detect changes in glucose levels and to provide additional information about glucose patterns. This can be useful, but it does not replace the monitoring you do yourself. Ask your diabetes in pregnancy team for more information.



Diabetes and your pregnancy

Insulin

Some women with type 2 diabetes may already be taking insulin before falling pregnant. Other women may need to start taking insulin during pregnancy to help manage their blood glucose levels. Most women with type 2 diabetes will need insulin at some stage during their pregnancy.

Your insulin requirements are likely to change constantly throughout your pregnancy as different hormones take effect and your baby grows. If you are taking insulin, you need to be prepared to adjust your doses on a regular basis. It is not uncommon to need to make adjustments to your insulin dose at least once a week in the second half of pregnancy.

If you are not sure how to adjust your insulin doses, ask your diabetes in pregnancy team for advice. Adjusting insulin doses in pregnancy is more challenging than usual, so make sure you know how to get in touch with your diabetes team and be prepared to contact them more often.

As pregnancy progresses, it is common to need more insulin. This is because the hormones made by the placenta interfere with the way your insulin normally works – as the pregnancy hormones rise, so does your need for insulin.

Insulin requirements tend to continue to rise until about 34 to 36 weeks, when they may plateau or start to fall a little. If you notice your insulin requirements fall significantly and rapidly in late pregnancy, this can be a sign of problems with the pregnancy – **contact your specialist for advice immediately.**



Diabetes and your pregnancy

Hypoglycaemia (low blood glucose)

If you are taking insulin to manage your diabetes, you will be at risk of hypoglycaemia (a hypo) or low blood glucose levels.

A hypo occurs when blood glucose levels fall below 4mmol/L. It is important to treat hypos quickly to stop the blood glucose level from falling even lower.

A hypo can be caused by:

- delaying or missing a meal
- not eating enough carbohydrate
- unplanned physical activity
- more strenuous exercise than usual
- too much insulin.

In some cases it can be difficult to identify why a hypo has occurred.

Symptoms of a hypo can vary from person to person and may include:

- weakness, trembling or shaking
- sweating
- light headedness
- headache
- lack of concentration
- dizziness
- feeling irritable or tearful
- hunger
- numbness around the lips and fingers.
- palpitations.



Diabetes and your pregnancy

Treating mild to moderate hypos

It is important to treat hypos quickly.

Have some easily absorbed carbohydrate, for example:

- glucose tablets equivalent to 15 grams of carbohydrate OR
- 6–7 jellybeans OR
- 1/2 a can of regular soft drink (not 'diet') OR
- 3 teaspoons of sugar or honey OR
- 1/2 a glass of fruit juice.

If possible, re-test your blood glucose levels to make sure they have risen above 4mmol/L. It may take 10–15 minutes for this to happen.

If symptoms persist, or if your blood glucose level is still below 4 mmol/L, repeat the treatment.

If your next meal is more than 20 minutes away, you will need to eat some additional carbohydrate. This could be one of the following:

- a slice of bread OR
- 1 glass of milk or soy milk OR
- 1 piece of fruit OR
- 1 small tub yoghurt.

Frequent blood glucose monitoring can help you reduce the risk of hypos. You also need to remember to check that your blood glucose levels are above 5mmol/L before driving. For more information, refer to the NDSS booklet *Diabetes and Driving*.

Diabetes and your pregnancy

Very occasionally, women taking insulin may experience severe hypos. This occurs when you can't treat a hypo yourself and you need help from someone else. It is important for your partner, family and friends to know about hypo symptoms and treatment. Your diabetes in pregnancy team can help with more information about hypos.

ACTION:

- If you are taking insulin, make sure you carry a supply of hypo treatment such as glucose tablets, glucose gel or jelly beans with you at all times. It is also a good idea to have your hypo treatment close by your bed at night.

High blood glucose levels (hyperglycaemia)

It is important to aim for the best possible management of your blood glucose levels throughout pregnancy. If your blood glucose levels appear to be increasing, contact your diabetes in pregnancy team for advice.

If you are taking insulin, you may be advised to adjust the doses you are taking. If you are managing your diabetes with metformin or lifestyle management the plan for managing your diabetes may need to be reviewed.

If you can't get your blood glucose levels close to the recommended target range for pregnancy, you may need to have more frequent appointments with your diabetes in pregnancy team.



Diabetes and your pregnancy

Sick days

Everyday illnesses, such as the flu and infections, can cause your blood glucose levels to rise. If you get sick while you are pregnant you will need to be particularly careful and check your blood glucose levels more frequently. If you are taking insulin, you may also need to adjust your doses to manage your blood glucose levels.

Talk to your diabetes health professionals about developing a sick day management plan, as this takes the guess-work out of managing blood glucose levels when you are unwell.

For more information about sick day management, ask your diabetes health professionals for a copy of the booklet *Sick Day Management for Adults with Type 2 Diabetes* or visit www.adea.com.au to download a free copy.

HELPFUL HINTS: Illness and infection

- Check your blood glucose levels more frequently when you are unwell.
- If you are on insulin, continue to take it but talk to your doctor or diabetes educator about adjusting your insulin dose if you are vomiting, not eating or if your blood glucose levels are higher than usual.
- If you are taking metformin, you may need to stop taking this medication temporarily if you have severe vomiting - ask your doctor for advice.
- Follow your sick day management plan.
- Call your doctor or diabetes educator if you:
 - are vomiting or unable to eat or drink
 - are worried about high blood glucose levels
 - need advice about your medication
- See your doctor to find out the cause of the illness.
- If you are vomiting so much that you cannot keep food or fluids down, call your doctor or diabetes educator immediately or go to the Emergency Department of your nearest maternity hospital.

Diabetes and your pregnancy

Morning sickness

During the first 12 to 14 weeks of pregnancy, some women feel sick first thing in the morning, some in the evenings and others in the afternoon. Other women feel sick all day long and may vomit frequently. For some women this may continue well into the pregnancy.

HELPFUL HINTS: Morning sickness

- Keep your fluids up: sip on drinks such as water, flat diet (sugar-free) lemonade, diluted diet cordial, or diet icy poles.
- If you have been vomiting or unable to eat, you may need to include ordinary soft drinks and cordial instead of diet drinks (refer to your sick day management plan).
- Eat small, frequent meals. Talk to your doctor or diabetes educator about changing insulin doses to allow for this.
- Avoid strong food odours and rich, fatty foods.
- If mornings are a problem snack on food like dry toast or dry biscuits before getting out of bed.
- Eat and drink slowly.
- You may find you can tolerate cold foods better than hot foods.
- Some women find ginger (tea, biscuits or tablets) to be useful.
- Ask your dietitian for some suggestions.
- If you are on insulin, you may be advised to change the dose
- If you are taking metformin you may need to stop this medication temporarily if your vomiting is severe - ask your doctor for advice.

Diabetes and your pregnancy

Diabetes complications

Your doctor will advise you to have a baseline screening for all diabetes complications before pregnancy.

If there are any complications, they should be assessed and stabilised before you fall pregnant. They will also need to be closely monitored throughout your pregnancy. If complications are advanced, it is important to discuss the risks of pregnancy with your doctor before planning to fall pregnant, as pregnancy does put additional stress on your body.

Some of the complications of long-term diabetes can be made worse by pregnancy, such as renal damage (kidneys) and retinopathy (eyes).

Kidneys

Diabetes complications affecting the kidneys increase the chance that your blood pressure will become a problem in the second half of pregnancy, usually after 26 weeks. If you have no signs of kidney problems or only very mild problems before pregnancy, it is unlikely that a pregnancy will have any long-term effects on your kidney function. If you already have diabetes related kidney disease, pregnancy may cause your kidney function to worsen.

Eyes

Rapid improvements in blood glucose levels can increase the risk of developing eye problems, or make any existing eye complications worse. Gradually reducing your haemoglobin (HbA1c) before you fall pregnant can reduce the risk of these problems occurring. If you have eye problems that become worse during pregnancy, laser treatment is safe if you need it. Any eye problems that may have developed during pregnancy tend to improve after the birth, usually by the time the baby is three to four months old.

If you have diabetes complications, it is particularly important to have specialised management of your diabetes during pregnancy. It is best for your pregnancy to be managed in a major hospital which has a lot of obstetric and diabetes medical support, as well as the best facilities for babies if they are born early or have any problems when they are born.

Diabetes and your pregnancy

Pre-eclampsia and high blood pressure

Pre-eclampsia is a potentially dangerous complication of pregnancy. It includes the development of high blood pressure, protein in the urine, and swelling or puffiness in the legs, fingers and face. It is more common in women with diabetes.

Pre-eclampsia is dangerous for you and your baby. It can cause problems for your baby's growth and is a major cause of premature birth. Well managed blood glucose levels before and throughout pregnancy can reduce the risk of pre-eclampsia but not fully prevent it.

Your doctor or diabetes in pregnancy team will check your blood pressure and urine, and look for signs of swelling at each visit in the later stages of your pregnancy.

Women who have a high risk of pre-eclampsia may be advised to take medication such as low-dose aspirin from early pregnancy to reduce the risk.



ACTION:

- Visit or phone your diabetes in pregnancy team regularly and understand the signs and symptoms of pre-eclampsia.

Medical tests and monitoring during pregnancy

Throughout your pregnancy you will need to have a number of tests to check your general health and the wellbeing of your baby, including:

- HbA1c to assess your overall blood glucose management during pregnancy
- Full blood count and iron studies to make sure you are not anaemic
- Kidney function tests

Other tests will be arranged by your doctor as needed.

Ultrasound scans

Ultrasound scans are used to monitor your baby's growth and wellbeing and to check for abnormalities in your developing baby and the risk of genetic disorders.

It is likely that you will be offered ultrasounds at the following stages:

- 7 – 8 weeks: to estimate your due-date
- 11 – 13 weeks: for the first trimester combined screening (a nuchal translucency (NT) ultrasound and blood test to check for genetic abnormalities, including Down Syndrome as well as for risk for early onset of pre-eclampsia (high blood pressure) before 34 weeks)
- 18 – 20 weeks: for the anatomy scan (to check for physical abnormalities)
- 28 weeks: to check your baby's growth.



You may also be asked to have additional ultrasound scans, usually every two to four weeks from 28 weeks, to monitor your baby's growth and general health.

Medical tests and monitoring during pregnancy

Urine tests

You will be asked to give a urine sample at each visit during your pregnancy. This is tested for albumin and protein, and it can also identify the presence of any infection that would need to be promptly treated. A small amount of protein in the urine is not uncommon in pregnancy. However, a larger amount may indicate that the pregnancy has affected your kidneys or, in later pregnancy, that you are developing pre-eclampsia.

Fetal heart rate monitoring

Sometimes your obstetrician may recommend that you have a cardiotocography test (CTG), to monitor your baby's heart rate. This test may be recommended in the later stages of pregnancy. A CTG takes about 30 minutes and involves two sensors being placed on your stomach. These sensors record an electronic trace as a graph of your baby's heart rate, and detect any contractions in your uterus.



Diabetes and your baby

Most women will have a healthy baby, but all pregnancies can have problems regardless of whether the mother has diabetes. Having diabetes brings some additional risks for the baby, but looking after yourself and your diabetes can help to reduce these risks.

Risks to your baby in early pregnancy

Diabetes can increase the risk of birth defects (congenital abnormalities) in babies. These abnormalities are more common when diabetes management before and during early pregnancy has not been optimal. Damage to the baby's heart, spine and kidneys



can occur during the early stages of pregnancy, often before women realise they are pregnant. Miscarriage can also occur, as it can for all women. The risk of miscarriage increases when HbA1c is elevated before falling pregnant and in the early stages of pregnancy. To reduce your chance of miscarriage, and of your baby developing abnormalities, it is important to maintain the best diabetes management you can.

Your diabetes in pregnancy team will stress the importance of frequently checking your blood glucose levels and keeping these as close to the target range as possible. If you are taking insulin, it is also important to try to reduce the risk of hypos, and limit the swings in your blood glucose levels.

Diabetes and your baby

Talk to your diabetes in pregnancy team about your individual blood glucose targets.

The aim is to have your HbA1c at 6% (42mmol/mol) or less, if possible for three months before falling pregnant. Your HbA1c should also fall during your pregnancy. Your diabetes in pregnancy team can advise you on your personal HbA1c goal before you conceive. Have your blood glucose meter checked and upgraded, if necessary, to make sure your blood glucose readings are accurate.

High blood glucose levels during pregnancy

Glucose can freely cross the placenta to your baby, so your baby's blood glucose levels will reflect your own. If your blood glucose levels are high, the normal response of your baby will be to produce extra insulin for themselves (this occurs from about 12 weeks gestation). The combination of extra glucose and extra insulin can make your baby grow too big. Having a large baby can cause problems during labour and delivery.

Risks to your newborn baby

Babies may have low blood glucose levels after birth (hypoglycaemia) as they can continue to make extra insulin for a day or two after delivery. Hypoglycaemia is more likely to happen if babies are born early or if they are very small or large. Your baby could also have trouble with feeding, breathing or other medical problems. Keeping your blood glucose levels as close to target as possible during pregnancy and birth will dramatically reduce the risk of these problems.

If I take insulin during pregnancy, will it harm my baby?

No. It is important to know that the insulin you inject does not cross the placenta and cannot harm your baby.

Will my baby be born with diabetes?

No. Your baby will not be born with diabetes, but they will have an increased risk of developing type 2 diabetes later in life. A healthy lifestyle that includes good eating habits, maintaining a healthy weight and regular physical activity will reduce the risk.

Labour and birth



Your diabetes in pregnancy team will work with you towards the ultimate goal of having a healthy baby.

As a woman with diabetes, it may be possible for you to have a full term delivery and natural birth. However, your doctor will probably recommend delivering your baby at around 38–39 weeks or even earlier if there are problems during your pregnancy. Reasons for earlier delivery may include high blood pressure or pre-eclampsia, your baby becoming too big or perhaps not growing enough. Occasionally, it may also be because your diabetes is getting difficult to manage, or if there is a concern about a fall in your insulin requirements or your baby's activity level.

Your diabetes in pregnancy team will discuss what to expect during labour and delivery. This will include a plan for blood glucose management, insulin adjustment and who to contact if you go into labour earlier than expected.

Induction of labour

Depending on how your pregnancy is progressing, you may need to have an induction, which means helping your body to start labour. An induction can be performed in several ways, and sometimes a combination of two or more methods will be used.

Labour and birth

These include:

- **Gel insertion** – this involves inserting a prostaglandin pessary or gel into your vagina, to help the cervix to soften and open. This, in turn, tells your uterus to start contracting. Some women need two or three doses of gel before labour begins
- **Oxytocin drip** – this method involves an intravenous (IV) line (or drip) being inserted into a vein in your arm, and the oxytocin hormone being slowly delivered into your blood to help your uterus start contracting. The drip may be used alone or with a gel insertion
- **Balloon induction** – this involves a catheter being inserted into your vagina. Water is then pumped into the device, which gently puts pressure on your cervix, assisting dilation and encouraging your uterus to start contracting
- **Rupture of membranes (breaking waters)** – this method involves rupturing the membrane, or bag of fluid, around your baby. Your membrane is gently broken using an ‘amnihook’, which looks like a long crochet hook, and the gush of fluid may encourage your uterus to start contracting and bring on labour.

Caesarean section

If your doctor is concerned about you not being able to have a vaginal birth (for example, if they suspect your baby is large or there are other obstetric problems), they will discuss this with you when you are making a plan for your baby’s birth. This is usually towards the end of your pregnancy, at around 35 – 36 weeks.

If a caesarean section is advised, it will be according to your obstetric needs, not just because you have diabetes. Birth by caesarean section is not a decision taken lightly, as there are risks involved with such major surgery. The medical decision to perform a caesarean section should be discussed with you in detail, so your doctor can explain the risks and benefits involved.

If you are having a caesarean section, you will usually have to fast for about six hours beforehand, so you should discuss with your diabetes in pregnancy team the options for managing your blood glucose levels and insulin doses (if relevant) during this time. It is a good idea to make a management plan with your diabetes in pregnancy team well before the birth.

In some circumstances, a caesarean section is undertaken as an ‘emergency’. This might happen if there are problems with you or your baby, or because the labour is not progressing the way it should.

Labour and birth

Managing diabetes during labour

Your own blood glucose levels in the time leading up to the birth have an important effect on your baby's blood glucose levels. The higher your blood glucose is, the higher the glucose supply will be to your baby before birth. The extra glucose stimulates the baby's pancreas to make more insulin.

After birth, your glucose supply to your baby suddenly stops, but your baby may continue to produce excess insulin for several hours and even up to one or two days after birth. This can cause hypoglycaemia in the baby. If you have blood glucose levels close to the recommended range during labour, this lowers the risk of your baby having low blood glucose levels at birth.

When an induction or caesarean section is planned, your diabetes in pregnancy team will discuss with you a plan for managing your diabetes.

If you are taking metformin and having a planned delivery (either induction of labour or caesarean section) your metformin will be stopped the day before delivery.

When you are in labour, your blood glucose levels will be monitored frequently (usually every one or two hours). Some women with type 2 diabetes may not need insulin during labour, your doctor will decide whether you will need insulin during labour.

If you need insulin during labour, the dose will be adjusted to keep your blood glucose levels in the normal range. You may be given the insulin as injections or via an intravenous (IV) insulin infusion along with IV glucose (sugar).

Labour and birth

Managing diabetes after delivery

After your baby is born, your diabetes management plan will need to be reviewed. If you were taking metformin during pregnancy, this may be continued after your baby is born if your blood glucose levels are outside target levels. If you were changed from tablets to insulin before or during pregnancy, your insulin may be stopped after delivery. Depending on your blood glucose levels after delivery, your doctor will advise you on whether you still need insulin treatment or whether you may return to treatment with tablets. If you continue to need insulin the doses will be much lower and will need frequent review especially in the first week after delivery.

You will still need to do frequent blood glucose monitoring after your baby is born. Target blood glucose levels after delivery will be higher than your pregnancy targets, to reduce the risk of hypos while you are establishing breastfeeding and a new routine with your baby. It is usually recommended to keep blood glucose levels in the 5–10mmol/L range at this stage.

Your diabetes in pregnancy team will discuss changes to your diabetes management plan with you.



ACTION:

- Talk to your diabetes in pregnancy team before labour about pain relief options, diabetes management and any other questions or concerns you may have.
- Have a written plan for your diabetes management during birth, regardless of the birthing method.

Labour and birth

After your baby is born

After the birth, your baby will be examined by a paediatrician, your obstetrician or a midwife. If your blood glucose levels have been stable during your pregnancy and the birth, and your baby has no problems, your baby will probably go with you to your hospital room.

If your baby is born very large, very small, prematurely or is having breathing problems or low blood glucose levels, they may need to be observed in a Special Care Nursery for a day or two. Not all maternity hospitals are equipped with a high-level Special Care Nursery, so in some circumstances your baby may need to be transferred to another hospital.

Skin-to-skin contact between you and your baby will be encouraged at birth because it will help you to develop a close bond with your baby. It also allows your baby to suckle and will help to keep your baby's temperature more stable. Ask your midwife about skin-to-skin contact if you and your baby need to be separated due to premature delivery.

Your baby's blood glucose level

Your baby will be tested for low blood glucose levels for at least the first 24 hours after birth. Blood glucose tests are done by heel prick at regular intervals until the baby's blood glucose levels are in the normal range. This test is to check for low blood glucose levels – it is not a check to see if the baby has diabetes and does not mean that your baby will develop diabetes in the future. If your baby's blood glucose level is low (less than 2.0–2.5 mmol/L), your baby may need to have supplementary feeds or some glucose. Talk to your midwife about using your breast milk for supplementary feeding.

ACTION:

- Ask your midwife or diabetes in pregnancy team for a tour of your hospital's Special Care Nursery before your due date.
- Ask about early skin-to-skin contact with your baby.

Breastfeeding



Breastfeeding has many benefits, both for you and your baby. These include benefits for your baby's immune system, growth and development, and it can also help with bonding between you and your baby.

Breastfeeding and diabetes

Most women with diabetes are able to breastfeed their babies. It is important to keep in mind though, that breastfeeding may require some practice, support and persistence.

It is a good idea to see a lactation consultant four to five weeks before your baby is due, to find out as much as you can about breastfeeding.

You can also discuss diabetes and breastfeeding and how to cope with any challenges you may come across.

Women with diabetes sometimes find that there is a delay with their breast milk 'coming in'.

The milk usually comes in on the third day after the birth, but it may be delayed by 24 to 48 hours. If your baby is born early, or if you have problems with low blood glucose levels after delivery, it can also be a bit more challenging to establish breastfeeding initially.

The lactation consultant may discuss with you the option of antenatal expressing and storing colostrum (early breast milk) before the birth of your baby. It's important to note however, that the advantages and disadvantages of antenatal expressing for mother and baby are still being researched.

Breastfeeding

Early breastfeeding

Try to feed your baby as soon as possible after delivery and then at least every three to four hours during the first few days to help your baby maintain their blood glucose levels. If your baby is at high risk of hypoglycaemia, you will be advised to breastfeed more often (at least every three hours).

If you don't have your baby with you, ask your midwife about expressing milk (colostrum) within the first four hours of your baby's birth. Your breasts make milk on a supply-and-demand basis. If you express, your breasts will keep producing milk which you can then give to your baby by bottle, spoon or tube.

Blood glucose levels

If you are taking insulin, you may need less in the first few days after delivery, but you will still need to do frequent blood glucose monitoring so you can adjust your insulin doses. It is usually safest to keep blood glucose levels in the 5–10mmol/L range at this stage, not lower, to reduce the risk of hypos.

Keep in mind, it can be really hard to get blood glucose levels within the recommended range while breastfeeding, so your medication or insulin doses may need to be reviewed and adjusted.

Blood glucose levels may fall rapidly during and following breastfeeding, just like with any other physical activity. If you are taking insulin, be prepared to treat hypos while you are breastfeeding. Blood glucose levels can fall by 3-5mmol/L during a breastfeed, so it is important to have hypo treatment within reach while you are breastfeeding.



Breastfeeding



Medication and breastfeeding

Insulin has been proven to be safe to take while breastfeeding. Research shows that metformin may also be taken with minimal effect on the baby. Sulphonylureas do get into breast milk to some degree, so there may be a risk that the baby's blood glucose level will fall. Of these, glibenclamide and glipizide appear to be the safest. It is recommended to seek specialist advice about the suitability of these medications as they are not usually prescribed during breastfeeding. Other diabetes medications should not be taken while breastfeeding.

Your doctor will review all other medications that you were taking before pregnancy to determine if they are safe to re-start. Cholesterol lowering medication should not be used during breastfeeding, and only certain blood pressure medications are considered to be safe. Remember to discuss all medications with your doctor.

HELPFUL HINTS: Insulin and breastfeeding

If you are taking insulin while breastfeeding, you may need to:

- Talk to your health professionals about adjusting your insulin while you are breastfeeding and strategies to prevent hypos.
- Develop a routine for feeding your baby, so you can have your meals on time and reduce your risk of hypos.
- Snack before or during a breastfeed (e.g. fruit, crackers, a sandwich) or talk to your health professionals about adjusting your insulin doses.
- Treat hypos as soon as you notice any symptoms.
- Check your blood glucose after a breastfeed, to see how much your levels are falling, especially during the night.

Breastfeeding

Breastfeeding information and support

Your midwife or lactation consultant can support you to establish breastfeeding and give you strategies for successful breastfeeding. Most Australian hospitals have baby-friendly health initiatives to help support early breastfeeding.

If you don't plan to breastfeed for long, remember that just six to eight weeks of breastfeeding will still give your baby many benefits, including immunity from infections. Breastfeeding may also reduce the chance of your baby developing diabetes later in life.

For more information, contact:

- the lactation consultant at your local hospital
- your Child and Family Health Nurse
- the Australian Breastfeeding Association helpline on 1800 686 268.

ACTION:

- Talk to your diabetes team about targets for blood glucose levels while you are breastfeeding.
- Eat regular meals and snacks to help with the demands of breastfeeding.
- Monitor your blood glucose levels more frequently and discuss any concerns with your diabetes health professionals.
- Talk to your midwife or lactation consultant about breastfeeding strategies.
- Ask about storing breast milk to supplement feeds if necessary.

Going home and the future

Taking home a new baby is incredibly exciting, but this can also be a stressful time. Some women with diabetes find it very hard to make their own health a priority and give their diabetes the attention it demands during this busy period.

Take advantage of any assistance your family and friends can offer. If you don't have any support nearby, it may be a good idea to organise help with things like shopping, cooking and housework. It is best to start thinking about this and getting plans in place before the baby arrives.



When you first go home with a new baby, especially for the first few weeks, you will be kept busy looking after your baby. You may find that this new routine, along with disturbed sleep, means that you don't manage your diabetes as well as you would like. It is very important both for you and your baby that you stay healthy and safe, so remember the following:

- Don't forget to take your medication or insulin as prescribed.
- Avoid hypos so that you are safe to take care of yourself and your baby.
- Check your blood glucose levels at least four times a day to help manage your diabetes.
- Aim to keep your blood glucose levels mostly between 5-10mmol/L.
- Ask for help from your diabetes in pregnancy team, even after your baby is born.

Going home and the future

Contraception and future pregnancies

Make sure you are using suitable contraception to avoid having another pregnancy before you are ready. Remember that planning another pregnancy and having your diabetes well managed beforehand will help you to have a healthy baby.

If you decide not to have any more children, you may want to consider a tubal ligation or discuss a vasectomy with your partner. There are also a number of very effective long-term but reversible contraception options, including intra-uterine devices (IUDs) and hormone implants. Discuss the available options with your doctor.

Looking after your health

Once you are getting some more sleep and managing a new routine with your baby (usually three to six months after the delivery), it is a good time to become more aware of your health needs again. Review your diabetes management with your diabetes health professionals to keep yourself healthy so that you feel well, reduce the risk of long-term health problems and enjoy your new baby.

ACTION:

- Take the time to look after yourself, as well as your baby.
- Make sure you have the contact details for your diabetes health professionals for advice and support on managing your diabetes after your baby is born.
- Review your family planning and contraception; whether you intend to have another child or not.
- Make an appointment with your diabetes in pregnancy team or doctor before planning your next baby.
- Talk to your GP or diabetes specialist about annual screening for diabetes complications (kidneys, eyes, nerves etc).

"Overall, being pregnant is a wonderful, magical experience...It's a gift that women with diabetes in the past feared, and were advised against. Thank goodness times have changed."

Your emotional wellbeing



Becoming a mother is one of the most memorable moments in a woman's life. For women with diabetes, pregnancy also involves a lot of planning, preparation and hard work. It is not surprising that women with diabetes sometimes feel worried, stressed, anxious and uncertain during pregnancy and once the baby is born. These feelings are very normal and may come and go at different stages of your pregnancy.

It can also be a time in your life when you feel very motivated and empowered to take care of yourself. It is really about finding a balance between the responsibilities of taking care of your diabetes and your unborn baby and enjoying one of the most memorable times in your life.

Being pregnant and giving birth is a team effort involving you and your partner, family, friends and health professionals. There will be more medical appointments than usual which may feel overwhelming at times. However, these visits are also an opportunity to let your diabetes in pregnancy team know how you are feeling and to discuss any concerns and issues you have.

Your emotional wellbeing

Your diabetes in pregnancy team is well equipped to assist you with the emotional ups and downs you might go through during pregnancy. They are there to listen to your concerns and to help you get the support you need. It is best not to ignore these feelings or to delay seeking help. Looking after your emotional wellbeing is as important as looking after your physical health.

Many women with diabetes describe a number of challenges before, during and after pregnancy which can impact on their emotional health.

Achieving and maintaining blood glucose targets

This is probably the most challenging aspect of managing your diabetes while pregnant. While you may have felt 'in control' of your diabetes before, you may find that this all changes once you are pregnant. Even if you follow your health professionals' advice, you may still have variations in your blood glucose levels. You may feel that your health professionals do not always acknowledge how much effort you have put in and the frustration it causes. It may feel like the emphasis on blood glucose levels takes away from the positive experience of expecting a baby and what it means for you to become a mum.

If you are finding it too hard to achieve the recommended blood glucose targets, talk to your doctor or diabetes educator/diabetes nurse practitioner and discuss realistic goals for you and how to achieve them.



Worrying about your baby's health

It is very normal to worry about whether or not you will have a healthy baby. It is important to find a health professional you feel comfortable with so you can openly discuss these concerns with them. Find out as much as you can about how to minimise the risk of problems during pregnancy. The support of women with diabetes who have recently become mothers can also be helpful at this time. Remember that most women with diabetes will have a healthy baby.

Your emotional wellbeing

Preventing and managing hypos

If you are taking insulin you are at risk of hypos, which can make some women feel anxious. Frequent blood glucose checks and appropriate insulin adjustments can help reduce this risk. Remember to always carry hypo treatment with you and if needed, have treatment within reach when you are breastfeeding.

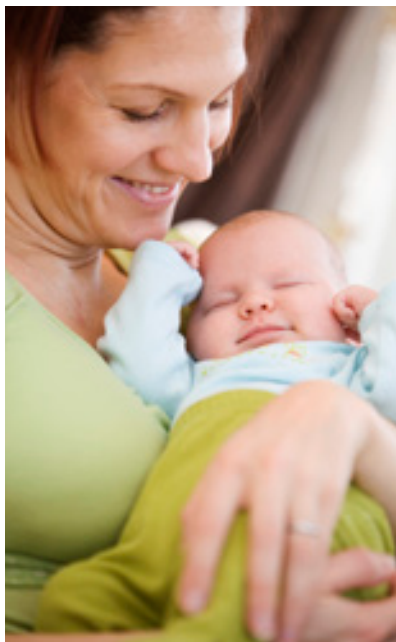
Managing the concerns of well-meaning partners, friends or family members

Your partner, friends or family members may worry more than usual about you at this time. You may feel that they are constantly watching you and that you are being judged about how you are managing your diabetes. While they may mean well, it is important to let your loved ones know how this makes you feel. Talk about how they could support you, what is helpful and what is not. Reassure them that you are taking care of your diabetes, but that it is not always easy. You could consider inviting them to be involved in your diabetes and pregnancy care so that they better understand your diabetes management, worry less and give you the support you need.

Going home

Taking your baby home is an exciting time and a new chapter in your life. While you may have felt that there was a lot of support available while you were pregnant, many women feel 'abandoned' at this time. You may be uncertain about things such as how to care for your baby, breastfeeding or changes to blood glucose levels and insulin requirements.

Be reassured that help is close at hand. There is support available from child and family health nurses, lactation consultants and your diabetes health professionals. Make the time to find out what kind of support you need and who to ask.



Your emotional wellbeing

Postnatal depression

Many women experience changes in their emotions after having a baby. It is common to have the 'baby blues' in the first week after your baby is born. Postnatal depression occurs when these feelings last more than a week or two and interfere with your ability to function on a daily basis with normal routines including caring for your baby or caring for yourself.

Be aware of the signs of postnatal depression, such as loss of enjoyment in your usual day-to-day activities, low self-esteem and confidence, loss of appetite, panic attacks, or sense of hopelessness or fear for your baby's wellbeing.

If you are experiencing any distressing symptoms that are causing you concern after your baby is born or your family or friends have noticed signs of postnatal depression, your doctor, midwife, or child health nurse can provide you with assistance or arrange for you to access psychological support. Don't expect that these feelings will just go away – make sure you seek the help you need.

Emotional support

There are many ways in which other people can support you through your pregnancy, the birth and beyond. If you have a partner, initially you may be reluctant to involve them in your diabetes management, particularly if this is something that you have always managed by yourself. However, remember that pregnancy is an exciting time for couples and your partner may want to be part of this journey. Sharing your feelings and expressing your needs at this time can give you the reassurance you need.

"It is important to share the experience of pregnancy with your partner. They will be feeling the same elation and anxieties as you. By sharing them, your lives and your pregnancy will be much happier and easier."

Your emotional wellbeing

Family and friends can also be great support people during this time. Talking openly and honestly about your emotions can help you to express your feelings, allow your loved ones to better understand the support you need, and help you at each stage of pregnancy and beyond.



Many women find it helpful to hear stories of how other women with diabetes have experienced their pregnancy. Ask your diabetes in pregnancy team if there is a support network or group you can attend to meet other women with diabetes. Some women have even formed support groups in the waiting rooms of diabetes and pregnancy clinics! Other women find online networks, forums and blogs a useful source of information and support.

As a woman with diabetes, pregnancy can be one of the most wonderful yet challenging times of your life. There are many emotions you may experience at this time, but you are not alone.

Talk to your partner, family and friends about how you are feeling and ask your health professionals about accessing the support you need for your emotional wellbeing.

ACTION:

- Ask for support from your family, partner, friends and health professionals.
- Seek out counselling services if you need support.
- Diabetes Counselling Online offers peer support and information with a focus on wellbeing at www.diabetescounselling.com.au.
- If you need to talk to someone immediately, contact:
 - Beyond Blue Support Service on 1300 22 4636
 - Lifeline 13 11 14.

Pregnancy and diabetes checklist

The following checklist provides information for you and your diabetes in pregnancy team to guide you through the different stages of pregnancy – from pre-pregnancy planning through to delivery and going home. Use this checklist together with your health professionals to help you manage your diabetes and your pregnancy.

Before pregnancy (at least 3 months)

- ☐ Discuss contraception with your doctor
- ☐ Meet your diabetes in pregnancy team*
- ☐ Discuss individual blood glucose targets
- ☐ Aim for a HbA1c of 6% or less (discuss your individual target)
- ☐ Review your diabetes management plan
- ☐ Diabetes complications assessment (for kidneys, eyes and nerves)
- ☐ Review of medications, including diabetes tablets, insulin type and delivery, blood pressure and lipid medication
- ☐ Review hypoglycaemia prevention and treatment plan (if relevant)
- ☐ Review sick day management plan
- ☐ Dietitian review of weight and diet for diabetes and pregnancy
- ☐ Discuss pre-pregnancy weight and weight gain targets for pregnancy
- ☐ Start high-dose folic acid supplement (at least one month before conception)
- ☐ Start taking an iodine supplement
- ☐ Thyroid function tests
- ☐ Blood test for Rubella and chicken pox immunity and if needed, immunisation at least one month before conception

*Frequent contact with your diabetes in pregnancy team is recommended before, during and after your pregnancy.

Pregnancy and diabetes checklist

The first 12 weeks

- ☐ GP appointment to confirm pregnancy, discuss booking birth hospital and diabetes in pregnancy team appointments
- ☐ Early pregnancy blood tests including HbA1c
- ☐ Ultrasound at 7-8 weeks (to confirm due date)
- ☐ Review of your medications
- ☐ Review blood glucose levels and blood pressure
- ☐ Review insulin requirements (if relevant)
- ☐ Review hypoglycaemia prevention and treatment plan (if relevant)
- ☐ Review sick day management plan
- ☐ Maintain an adequate diet for pregnancy
- ☐ Check pregnancy weight gain
- ☐ Continue taking folate supplement (for the first 3 months)
- ☐ Keep in touch with how you feel and talk to a health professional if needed



Pregnancy and diabetes checklist

12 – 14 weeks

- ☐ Nuchal translucency (NT) scan and associated blood tests
- ☐ Book 18–20 week anatomy ultrasound to check for physical abnormalities
- ☐ Review blood glucose levels, HbA1c, insulin requirements and blood pressure
- ☐ Check pregnancy weight gain
- ☐ Keep in touch with how you feel and talk to a health professional if needed



18 – 20 weeks

- ☐ Anatomy ultrasound (to check for the normal development of the baby)
- ☐ Discuss ultrasound results
- ☐ Review blood glucose levels, insulin requirements, blood pressure and any diabetes complications
- ☐ Check pregnancy weight gain
- ☐ Keep in touch with how you feel and talk to a health professional if needed

Pregnancy and diabetes checklist

24 – 40 weeks

- ☐ Regular ultrasounds to assess your baby's growth and wellbeing (every 2-4 weeks from 28 weeks)
- ☐ Blood and urine tests (according to doctor's assessments)
- ☐ Regular review of your baby's wellbeing by obstetric team
- ☐ Blood pressure checked at each obstetric / diabetes visit
- ☐ Discuss breastfeeding with lactation consultant or midwife
- ☐ Review blood glucose levels, HbA1c and insulin requirements
- ☐ Check pregnancy weight gain regularly
- ☐ By 36 weeks, discuss obstetric delivery plan (the delivery and timing of the birth)
- ☐ Discuss diabetes management during labour/delivery and develop a written plan
- ☐ Keep in touch with how you feel and talk to a health professional if needed



Pregnancy and diabetes checklist

Breastfeeding & going home

- ☐ Seek advice/help with breastfeeding
- ☐ Review blood glucose levels and medication/insulin requirements
- ☐ Review hypoglycaemia prevention and treatment plan (if relevant)
- ☐ Contact details for diabetes team for support and follow-up
- ☐ Arrange follow-up appointments
- ☐ Discuss family planning, including contraception and pre-conception care for next pregnancy
- ☐ Keep in touch with how you feel and talk to a health professional if needed



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Notes

Notes

This booklet is for women with type 2 diabetes who are planning a pregnancy now or in the future. It provides information on preparing for pregnancy, how to manage diabetes during pregnancy and once the baby is born.

For more information go to the NDSS pregnancy and diabetes website:

www.pregnancyanddiabetes.com.au



The NDSS is an initiative of the Australian Government administered by Diabetes Australia. The NDSS delivers diabetes-related products at subsidised prices and provides information and support services to people with diabetes. Registration is free and open to all Australians diagnosed with diabetes.

Visit ndss.com.au or call 1300 136 588.

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