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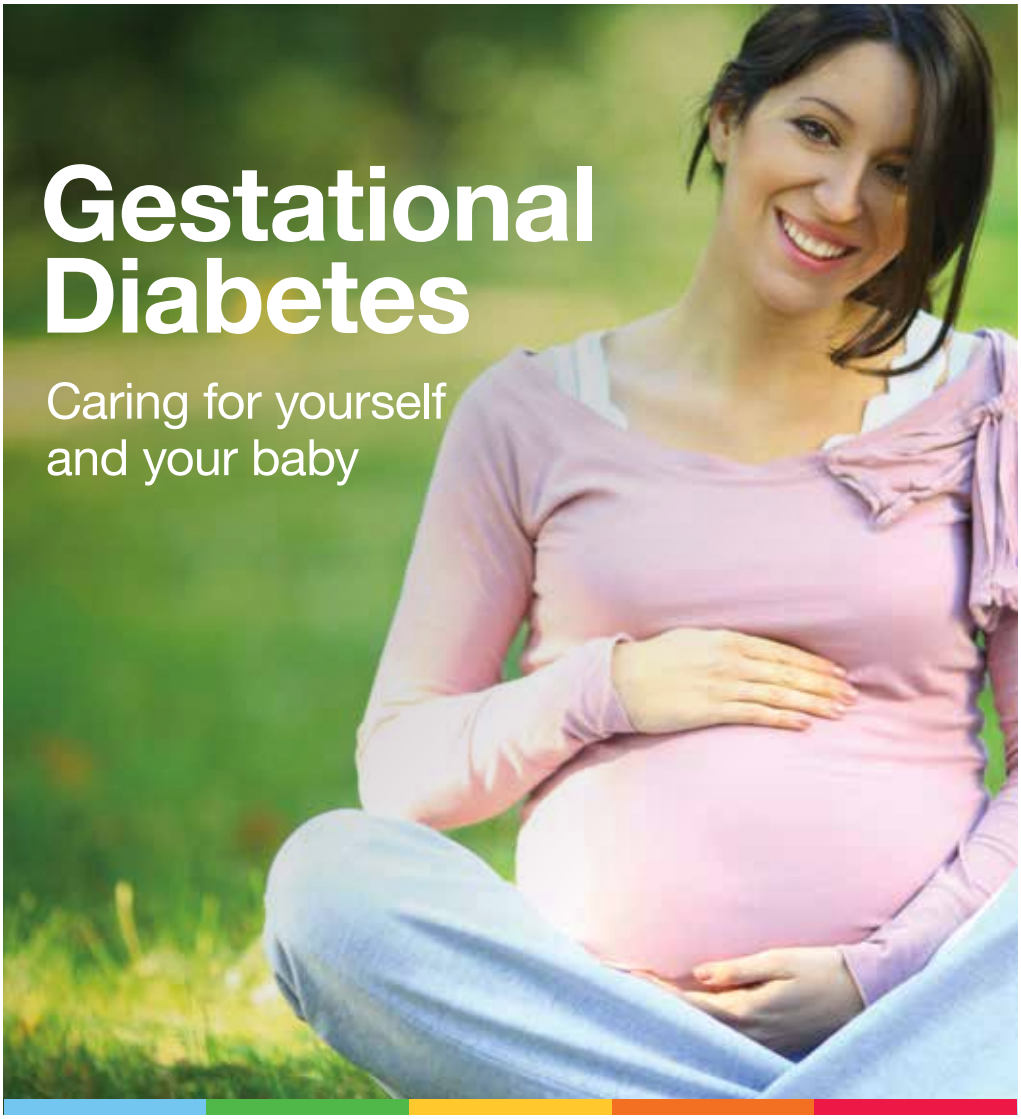

Gestational Diabetes

Caring for yourself and your baby

Find this resource at ndss.com.au

diabetes australia

The NDSS is administered by Diabetes Australia

Contents

If receiving information about pregnancy or gestational diabetes raises personal concerns for you or causes you any distress, you can opt out from receiving further communications by visiting our website at **ndss.com.au/gdm-update** or calling the NDSS Helpline on **1800 637 700**. If you need support, ask your GP or local hospital maternity service about support services available in your area.

Disclaimer:
This information is intended as a guide only. It should not replace individual medical advice. If you have any concerns about your health, or further questions, you should contact your health professionals.

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Gestational Diabetes

Caring for yourself and your baby

In Australia, out of every seven pregnant women, at least one will develop gestational diabetes — you are not alone!

Gestational diabetes is a form of diabetes that occurs during pregnancy. This usually develops around the 24th to 28th week of pregnancy. For most women, diabetes goes away after the baby is born.

Finding out you have gestational diabetes may come as a shock, and you may be worried about how this will affect your pregnancy and your baby. While there is an increased risk of complications during pregnancy and birth, the good news is that the risks of health problems for mother and baby are reduced if gestational diabetes is well-managed.

This booklet aims to give you information about gestational diabetes, how to look after it and where to get information and support to help you manage gestational diabetes. It does not take the place of the valuable advice you will receive from your diabetes health professionals.

What is gestational diabetes?

Diabetes is a condition where there is too much glucose (sugar) in the bloodstream.

Glucose is an important source of energy for your body. It comes from carbohydrate foods that you eat, such as bread, pasta, rice, cereals, fruits, starchy vegetables, milk and yoghurt. Your body breaks down carbohydrates into glucose, which then enters your bloodstream.

Insulin is needed to allow glucose from the bloodstream to enter the body cells and be used for energy. Insulin is a hormone made in the body by your pancreas.

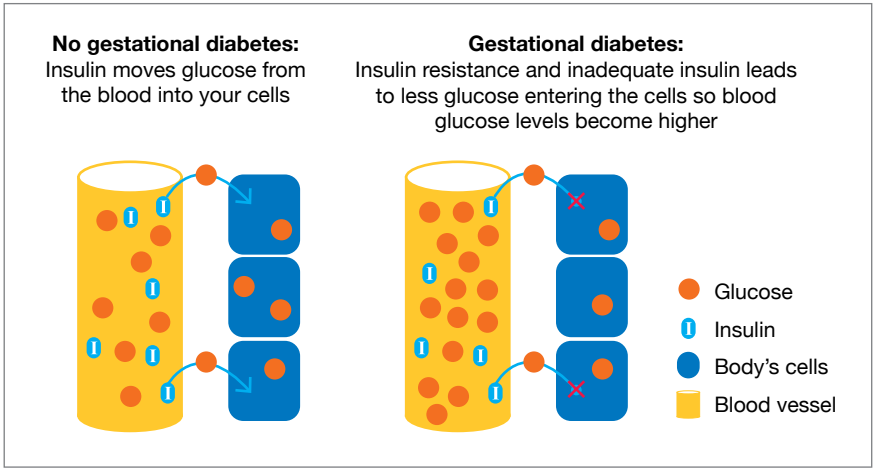
During pregnancy, some of the hormones produced by the placenta (which provides nutrition for your growing baby), reduce the action of the mother's insulin. This is called insulin resistance.

When insulin resistance occurs, the pancreas then needs to produce extra insulin to keep blood glucose levels in the normal range. If the pancreas is unable to produce enough insulin, blood glucose levels rise and gestational diabetes develops.

Gestational diabetes will not lead to your baby being born with diabetes.




Glucose and insulin changes in gestational diabetes



No gestational diabetes: Insulin moves glucose from the blood into your cells.

Gestational diabetes: Insulin resistance and inadequate insulin lead to less glucose entering the cells so blood glucose levels become higher.

When the baby is born, insulin requirements fall, blood glucose levels return to the normal range (for a non-pregnant woman) and diabetes usually disappears.

Who is at increased risk of gestational diabetes?

Women with an increased risk of gestational diabetes include those who:

- have had gestational diabetes in a previous pregnancy
- are older, especially over 40 years of age
- are from an Aboriginal and Torres Strait Islander background
- are from a Melanesian, Polynesian, Indian subcontinent, Middle Eastern or Asian background
- have had elevated blood glucose levels in the past
- have a family history of type 2 diabetes or a first-degree relative (mother or sister) who has had gestational diabetes
- are above the healthy weight range
- have polycystic ovary syndrome
- have gained weight too rapidly in the first half of pregnancy
- have had a large baby (weighing more than 4,500g) or complications in a previous pregnancy
- are taking some types of antipsychotic or steroid medications.

Some women without known risk factors will also develop gestational diabetes.

How is gestational diabetes diagnosed?

All women should be tested for gestational diabetes during pregnancy. This usually occurs between 24 and 28 weeks of pregnancy, although some women may be advised to be tested earlier.

An oral glucose tolerance test (OGTT) is used to check how your body responds to a glucose load. After fasting (not eating) for 8–12 hours, a blood sample is taken. You then have a drink containing 75g of glucose, and blood samples are taken one and two hours later.

If your blood glucose level is above the normal range at your fasting, one or two-hour test, you have gestational diabetes.

Some women may have only mildly elevated blood glucose levels at diagnosis, while other women have much higher levels and may need more intensive management and closer monitoring during pregnancy. Your health professionals will discuss your results and work with you to develop a plan to help manage your gestational diabetes.

Why does gestational diabetes need to be treated?

If blood glucose levels are high during pregnancy, excess glucose passes through the placenta to the baby, who then makes extra insulin.

This can make the baby grow too big, which can cause problems during labour and increase the risk of early delivery or the need for a caesarean section.

After the birth, the baby may have a greater risk of low blood glucose levels (hypoglycaemia). This is because the baby is no longer receiving extra glucose from their mother, but they continue to make more insulin than a baby usually would, causing their blood glucose levels to drop.

Women with gestational diabetes are also at greater risk of developing high blood pressure and pre-eclampsia (high blood pressure, protein in the urine and fluid retention or swelling) during pregnancy.

Well-managed gestational diabetes reduces the risk of these health problems for mother and baby. Your doctor and a team of diabetes health professionals can work with you to help keep your blood glucose levels within the target range to provide the best outcome for both you and your baby.

Most women with gestational diabetes will have a healthy pregnancy and a healthy baby.

Who can help you with gestational diabetes?

When you are diagnosed with gestational diabetes, there are health professionals who can help you manage this condition.

Your diabetes health care team may vary, depending on where you live or where you go for your pregnancy care and how your gestational diabetes is managed. This team may include:

- an endocrinologist – a doctor who specialises in diabetes
- a credentialled diabetes educator or a diabetes nurse practitioner – a specialist nurse or midwife who will help you and your family learn how to monitor and manage your blood glucose levels
- an accredited practising dietitian – who will help you with a healthy eating plan for your pregnancy
- your general practitioner (GP).

Your team of diabetes health professionals will work closely with your pregnancy team that may include:

- an obstetrician – a doctor who specialises in pregnancy and birth
- a midwife – who will provide support, care and advice during pregnancy, labour and after your baby is born
- a physiotherapist or accredited exercise physiologist – who may help you and your partner prepare for the birth process and advise on exercise during and after pregnancy.

Emotional health

Being diagnosed with gestational diabetes may come as a shock. Your first reactions may be disbelief, sadness, anger or self-blame. At this time, it is common to feel a mixture of emotions.

You may feel uncertain or concerned about how gestational diabetes will affect the health of your baby. You may feel overwhelmed by the extra appointments, all the information you receive and new skills needed to manage your gestational diabetes. Some women also feel anxious about their blood glucose levels.

Getting the right information and support you need to manage gestational diabetes can help. There are many different risk factors for gestational diabetes, so it's important to know that getting gestational diabetes is not your fault. Remember too, that with well-managed gestational diabetes, most women will go on to have a healthy pregnancy and baby.

You don't have to go through this alone. Let your partner, family and friends know how you feel so they can support you. Let them know to what extent you want them to be involved in managing your gestational diabetes and invite them to share their feelings too. Your health professionals are also there to support you.

If you are having problems coping with the diagnosis of gestational diabetes or feeling anxious, worried or overwhelmed, your health professionals can advise you about support services available to you locally.

How is gestational diabetes managed?

You can manage gestational diabetes by:

- following a healthy eating plan
- doing regular physical activity
- monitoring blood glucose levels, and
- taking medication (if needed).

Managing gestational diabetes will help keep blood glucose levels within the target range for a healthy pregnancy. Eating well and being active will also help you to manage your pregnancy weight gain.

Healthy eating

When you have gestational diabetes, following a healthy eating plan can help to keep your blood glucose levels within the target range, provide nutrition for you and your growing baby and achieve appropriate weight changes during your pregnancy.

Healthy eating for gestational diabetes includes:

- eating 3 moderate sized meals and 2–3 snacks, spread out over the day
- choosing the right type and amount of carbohydrate foods at each meal and snack
- choosing foods that are low in saturated fat
- making high-fibre food choices
- eating a variety of foods that provide the nutrients you need during pregnancy

Nutrients required in higher amounts for pregnancy include iron (found in red meat, chicken, fish, legumes), folate (found in dark green leafy vegetables) and iodine (found in fish, bread, dairy foods).

Your dietitian can advise you on how to get the nutrition you need for you and your baby, while helping you to make healthy food choices that will help you manage your blood glucose levels.

Carbohydrates

Carbohydrate foods are broken down into glucose and used by the body for energy. They are very important for you and your baby.

Carbohydrate foods include:

- breads and breakfast cereals
- pasta, rice, noodles, couscous, quinoa, cracked wheat
- starchy vegetables (such as potato, corn, sweet potato, taro and cassava)
- fruits
- legumes (such as baked beans, chickpeas and lentils)
- milk and yoghurt

To manage your blood glucose levels, you need to eat the right **amount** and **type** of carbohydrate foods.

Amount of carbohydrate

Spreading your carbohydrate foods over 3 meals and 2–3 snacks each day can help manage your blood glucose levels. Large amounts of carbohydrate foods at any one meal or snack can cause blood glucose levels to rise too high. Your dietitian can advise you on the amounts of carbohydrate that are right for you.

In some women, blood glucose levels continue to be high, even with healthy eating and regular physical activity. If this happens to you, make an appointment with your diabetes health professionals, including your dietitian, to see if any food changes may help. It is important not to cut out carbohydrates as the baby requires carbohydrate as its main energy source. Some women may need medication, usually insulin injections, to manage their blood glucose levels.

Type of carbohydrate

Carbohydrates break down into glucose at different rates. The glycemic index (GI) tells us how slowly or quickly carbohydrate foods affect blood glucose levels.

High-GI carbohydrate foods break down into glucose quickly, which means a higher and faster rise in blood glucose levels after eating.

Low-GI carbohydrate foods break down into glucose slowly. They result in a smaller and slower rise in blood glucose levels after eating.

Foods with a lower GI are a better choice when trying to manage blood glucose levels. The best carbohydrate food choices are those that are high in fibre and have a lower GI.

Lower GI carbohydrates choices include:

Breads - dense wholegrain/seeded breads, multigrain bread, raisin bread, mixed grain wraps

Cereals – traditional or steel cut rolled oats, natural muesli

Pasta – most fresh and dried pasta cooked 'al dente' (not overcooked)

Noodles – vermicelli, hokkien, buckwheat, udon, soba or fresh rice noodles

Rice - SunRice® Low GI rice (white/brown) or basmati rice (white/brown)

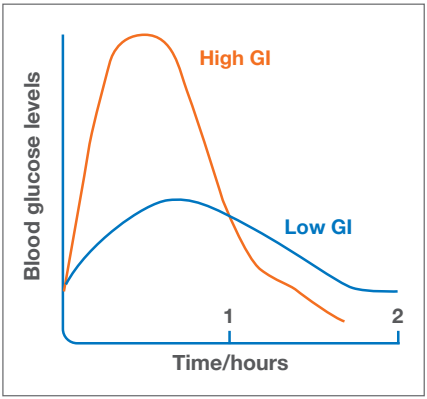
Grains – pearl barley, cracked wheat and quinoa

Dairy and alternatives – milk, soy milk and yoghurt

Vegetables and legumes – sweet potato, corn, taro, lentils, chickpeas, kidney beans

Fruit – most fresh fruit, canned fruit in natural juice

When making low GI food choices, it is still important to consider the amount of carbohydrate you eat, as recommended by your dietitian.



Acknowledgement: glycemicindex.com

Sugars and sweeteners

Sugars (including white, raw and brown sugar, honey, glucose and syrups) are also carbohydrates, but they provide no nutritional benefit and can cause your blood glucose level to rise too high.

Limit added sugars and avoid foods and drinks that are high in sugar and have little nutritional value, such as soft drinks, cordials, fruit juices, cakes, biscuits, chocolates and lollies.

There are a range of alternative sweeteners available to replace sugar. While these are not necessary, you may still choose to use them to add sweetness without adding sugar. Small amounts of alternative sweeteners can be used during pregnancy. All of the sweeteners approved for use in Australia have been tested and deemed safe by Food Standards Australia New Zealand.

Fats

Use small amounts of healthy fats, such as olive or canola oils and spreads, unsalted nuts, seeds and avocado.

Limit the amount of saturated fat you eat by choosing lean meats, skinless chicken and low-fat dairy foods. Limit butter, ghee, cream, sour cream and coconut milk/cream.

Avoid takeaways and processed foods high in saturated fats such as pastries, packaged biscuits, savoury snacks, chocolates and processed meats. If eaten in large amounts, fats can cause extra weight gain, which can further increase insulin resistance.

Protein

Protein is important for the maintenance of your body and the growth of your baby. Protein can also help you feel full for longer. Protein foods include lean meat, skinless chicken, fish, eggs, tofu and reduced-fat cheese. Milk, yoghurt and legumes (beans, lentils, chickpeas) are also important sources of protein (these foods also contain carbohydrate).

Eat plenty of vegetables

Eating plenty of vegetables is important for a healthy pregnancy. They are a good source of fibre, vitamins and minerals. Most vegetables are low in carbohydrate and will not affect your blood glucose levels (except for potato, corn, sweet potato, taro and cassava).

Eat a variety of different coloured vegetables and salads, such as tomatoes, cucumber, celery, capsicum, onions, cauliflower, zucchini, broccoli, spinach, peas, cabbage, lettuce, green beans, eggplant, carrot, leek, squash, pumpkin and Asian greens.

Talk to your dietitian about making healthy food choices for managing both your diabetes and general health during pregnancy.

Putting together a healthy meal

When putting together a healthy main meal:

- Fill half your plate with salad (home-prepared) or vegetables (not including potato, corn, sweet potato, taro or cassava)
- Choose a lower GI carbohydrate food such as pasta, basmati rice (white/brown), SunRice® Low GI rice (white/brown), wholegrain bread, corn, sweet potato, low-GI noodles or legumes (such as lentils, chickpeas, kidney beans)
- Add a moderate serve of lean protein food, such as lean meat (beef, lamb, pork), skinless chicken, fish/seafood, tofu or eggs.

Include healthy fats and oils as part of a balanced meal, such as olive oil in cooking or as a salad dressing, avocado in a salad or nuts/seeds in a stir-fry.

Lower GI carbohydrate food such as:

- 1 cup cooked pasta **OR**
- 1 cup cooked low-GI rice **OR**
- 1 cup cooked low-GI noodles **OR**
- 1 cup sweet potato + 1 small corn cob **OR**
- ½ cup cooked legumes + ⅔ cup cooked pasta **OR**
- 2 slices wholegrain bread + 1 serve of fruit.

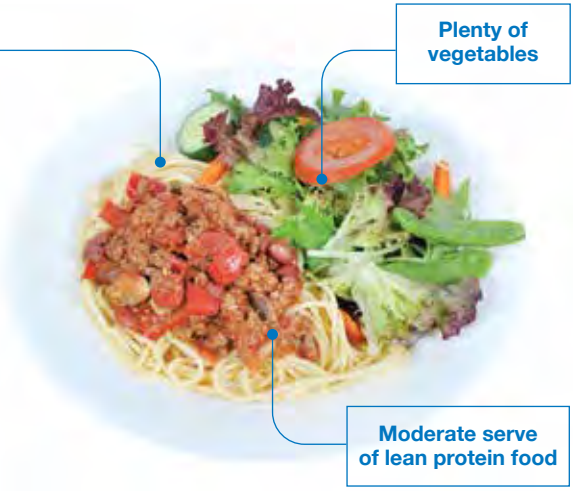


Image acknowledgment: Diabetes SA

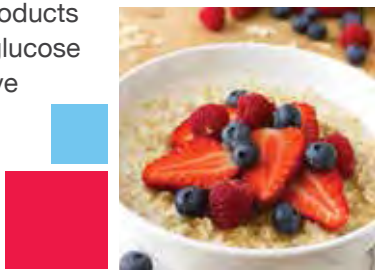
The sample meal ideas on the following pages provide suggested amounts of carbohydrate at each meal and snack. Your dietitian will advise you on the amount of carbohydrate to suit your individual needs.

Sample meal ideas

The following healthy meal ideas provide a starting point for planning meals and snacks to help you manage your gestational diabetes. The amounts shown here are the suggested serving sizes for one person and are a guide only.

To make sure you are eating the amounts that are right for you, ask your dietitian for advice based on your individual needs and food preferences.

As the amount of carbohydrate in food products and recipes varies, checking your blood glucose levels after meals will help you adjust serve sizes to suit your individual needs.



Follow pregnancy food safety guidelines as advised by your health professionals when preparing meals and snacks; see page 20.

Breakfast ideas

Choose one of the following options:

- ○ Porridge: 1 cup cooked traditional oats served with reduced-fat milk, 1 tablespoon natural or plain Greek yoghurt and ½ cup sliced strawberries
- ○ 1–2 slices wholegrain toast with poly or monounsaturated spread, served with 1–2 boiled eggs, plus 1 cup reduced-fat milk or soy milk (with added calcium)
- ○ ½ cup untoasted muesli or 1 cup Special K Advantage® with reduced-fat milk and 1 tablespoon natural or plain Greek yoghurt
- ○ 1 cup fresh fruit salad served with ½ cup natural or plain Greek yoghurt and 30g mixed nuts/seeds
- ○ 1–2 slices wholegrain toast lightly spread with avocado or peanut butter, plus 1 serve of whole fresh fruit
- ○ 2–3 small idli with ¼ cup sambar, plus chopped cucumber and tomatoes
- ○ 1 medium bowl (1½ cups) of congee (try brown/black rice or a mixture of rice, rolled oats, barley or lentils) with vegetables and egg, tofu or lean meat

Lunch ideas

Choose one of the following options:

- ○ 1 wholegrain bread roll/sandwich/medium wrap filled with boiled egg/reduced-fat cheese/tinned salmon/tinned tuna/freshly cooked chicken with salad and avocado, plus 1 serve of whole fresh fruit
- ○ 4 Vita-Weats™ or Vita Grains™ with avocado, tomato and reduced-fat cheese, plus 100g tub fruit yoghurt and 1 serve of whole fresh fruit
- ○ Pasta salad: 1 cup cooked pasta, tinned tuna and salad vegetables served with olive oil vinaigrette
- ○ 2 egg and vegetable omelette served with 2 slices wholegrain toast, plus 1 serve of whole fresh fruit
- ○ Stir-fry with a moderate serve of lean beef/chicken/fish/tofu and vegetables*, plus 1 cup cooked (small Chinese bowl) low-GI noodles
- ○ 1 medium bowl (2 cups) homemade vegetable and lentil soup, plus 1 slice wholegrain bread
- ○ 1 cup dhal with 1–2 small (15cm) chapati/roti (try multigrain atta or ½ chickpea flour and ½ wholemeal flour) and salad

*** not including potato, sweet potato, corn, taro or cassava**

Dinner ideas

Choose one of the following options:

- ◯ Serve of lean beef Bolognese sauce with 1 cup cooked pasta, served with garden salad and a drizzle of olive oil dressing
- ◯ Serve of cooked fresh fish with 1 cup cooked sweet potato, 1 small corn cob, steamed green vegetables and lemon wedges
- ◯ Stir-fry with a moderate serve of lean chicken/beef/pork/tofu and vegetables* served with 1 cup cooked (small Chinese bowl) low-GI rice (white/brown)
- ◯ Tomato-based casserole with a moderate serve of lean lamb/skinless chicken/beef and vegetables* served with 1 cup cooked pasta
- ◯ Moderate serve of pan-fried lean steak/skinless chicken/salmon with a small wholegrain roll, a garden salad and 1 small corn cob
- ◯ Moderate serve lean meat-based curry (gosht) or soya chunks (Nutrela™) curry with green vegetables served with 1 cup cooked basmati rice (white/brown) and salad
- ◯ Asian style soup (fat removed) with vegetables* and lean meat/fish/tofu/skinless chicken and 1 cup cooked low-GI noodles

*** not including potato, sweet potato, corn, taro or cassava**

Snack suggestions

Choose 1–2 of the following options for snacks, such as morning tea, afternoon tea and supper (before-bed snack):

- ○ 1 serve whole fresh fruit (e.g. apple, orange, small banana or pear)
- ○ 2–3 small fruits (e.g., mandarins, plums)
- ○ ¾ cup canned fruit in natural juice (drained)
- ○ 100g tub fruit yoghurt
- ○ 1 cup reduced-fat milk or soy milk (with added calcium)
- ○ 200g tub natural or plain Greek yoghurt topped with fresh berries or passionfruit
- ○ One thin slice wholegrain fruit toast with poly or monounsaturated spread
- ○ Small handful (30g) unsalted mixed nuts and seeds with 1 tablespoon sultanas or 6 dried apricot halves or 2–3 small dates
- ○ 3 Vita-Weats™ or Vita Grains™ with 2 tablespoons of hommus and vegetable sticks (carrot, cucumber, celery, capsicum)
- ○ 2 wholegrain Ryvita® crispbread with reduced-fat cheese and tomato
- ○ 1 x 25g packet Happy Snack Company Roasted Chickpeas™
- ○ 1 small cob of corn or ½ small golden sweet potato

Food safety

Pregnant women are at greater risk of food poisoning and should prepare and store food carefully. This includes preparing raw and cooked foods separately, avoiding raw or undercooked meat/chicken/seafood and following food cooking and storage instructions. Ensure all salads (including fruit salad) are home-prepared, and fruits and vegetables are washed thoroughly. Cook and reheat food until steaming hot and keep cold foods refrigerated.

Protecting yourself from exposure to high-risk foods that can cause infections and harm your developing baby is also very important. Avoid foods that may contain listeria bacteria, such as soft cheeses, unpasteurised dairy products, pre-cooked cold chicken, soft serve ice cream, deli/sandwich meats, bean sprouts, rockmelon, pre-prepared salads and pâté. Avoid raw or undercooked eggs, as these may contain salmonella.

Certain types of fish, including shark/flake, swordfish and deep-sea perch, also need to be limited during pregnancy due to their high mercury content.

Seek advice from your dietitian and/or state health department on guidelines for food safety during pregnancy.

Drinks

Drinks such as cordial, juice and soft drinks are high in kilojoules and sugar and can cause your blood glucose levels to rise too high. Choose water, plain mineral water or soda water instead — try these flavoured with slices of fresh lemon or lime for something different. A small amount of tea and coffee can be included during pregnancy — ask your dietitian for more information.

The Australian guidelines recommend that for women who are pregnant, planning a pregnancy or breastfeeding, avoiding alcohol is the safest option.

Pregnancy weight gain

It is usual to gain some weight during your pregnancy, as your baby grows. How much weight you should gain depends on your weight before you were pregnant.

Gaining too much weight during pregnancy can increase the risk of health problems such as high blood pressure, having a large baby and increased risk of birth complications, and a caesarean section. Extra weight gain can also make it more difficult to manage blood glucose levels and harder to return to your pre-pregnancy weight after delivery.

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, by dividing your weight in kilograms by your height in metres squared).

BMI = pre-pregnancy weight (kg) ÷ (height (m) x height (m))

Pre-pregnancy BMI	Weight range	Pregnancy weight gain (kg)	Monthly weight gain 2nd and 3rd trimester (kg)
< 18.5	Underweight	12.5–18	2
18.5–24.9	Healthy weight	11.5–16	1.5
25–29.9	Overweight	7–11.5	1
> 30	Obese	5–9	1

These weight gain targets do not apply to women having a multiple pregnancy, and recommendations may vary for women from different cultural backgrounds.

Have your weight checked regularly throughout your pregnancy. Discuss your individual pregnancy weight gain targets with your health professional and talk to them if you feel you are gaining too much or not enough weight.

Physical activity

When you have gestational diabetes, it's recommended that you try and be active every day.

Physical activity can help you manage your blood glucose levels and pregnancy weight gain, as well as keep you fit to prepare for the birth of your baby. It also has other benefits, such as managing pregnancy symptoms like heartburn, constipation and lower back pain.

Many types of physical activity are suitable during pregnancy, but it's important to talk to your doctor before starting or continuing any form of physical activity while you are pregnant.

For women with gestational diabetes without any other medical or pregnancy complications, aim for 30 minutes of moderate physical activity on most days of the week. This can also be broken up into shorter periods of at least 10 minutes, three times a day.

'Moderate physical activity' means that while being active you will have a slight but noticeable increase in breathing and heart rate (but you should still be able to hold a conversation).

Moderate activities could include:

- swimming
- brisk walking
- aqua fitness classes
- stationary cycling
- prenatal exercise classes
- light to moderate resistance exercise.

Pelvic floor exercises during pregnancy can also be helpful for after the baby is born. As your pregnancy progresses, you may find that some activities are more suitable than others.

You can also increase your day-to-day activity by walking to the shops, playing with your children at the park or being active around the house.

Monitoring your daily activity by keeping an exercise diary or using a device such as an activity tracker can also encourage you to be active.

To exercise safely remember to:

- include a 5-10 minute warm up and cool down
- drink plenty of water during and after physical activity
- wear loose, light clothing to avoid overheating
- avoid exercise when you are hungry, unwell or have a high temperature
- STOP exercising and seek medical advice if you experience chest pain, dizziness, back or pelvic pain, calf pain or sudden swelling of ankles, hands or face, contractions or vaginal bleeding or a decrease in fetal movements.

During pregnancy, avoid activities that involve lying flat or increase the risk of falling, as well as contact or extreme sports.

Managing blood glucose levels

When you are active, your muscles use glucose for energy. This can help lower blood glucose levels and manage your gestational diabetes.

On days when you are less active, you may notice that your blood glucose levels will be higher, so a daily routine of physical activity can be helpful. Being active after meals (e.g. a short walk or housework) for at least 10–15 minutes can also assist with managing blood glucose levels.

Talk to your doctor or diabetes educator about the effects of exercise on your blood glucose levels, especially if you are taking insulin.

For women with gestational diabetes, moderate-intensity physical activity can help to manage blood glucose levels.

Monitoring your blood glucose levels

Blood glucose monitoring is an essential part of managing gestational diabetes.

Monitoring your own blood glucose levels will help you to:

- better understand the effect of food and physical activity on your blood glucose levels
- know when to seek advice from your health professionals
- develop confidence in managing your gestational diabetes.

A diabetes educator can show you how to check your blood glucose levels using a blood glucose meter and advise you on target levels for pregnancy.

The most common times to check blood glucose levels are when you wake up in the morning (fasting) and one or two hours after each main meal. You may also be advised to check your blood glucose levels at other times.

Blood glucose targets

The following blood glucose targets are often recommended in Australia:

- 5.0mmol/L or less before breakfast
- 7.4mmol/L or less if you are testing one hour after the start of your meal OR
- 6.7mmol/L or less if you are testing 2 hours after the start of your meal.

These are a general guide only and your doctor or diabetes educator will advise you on individual blood glucose targets.

Write your individual blood glucose targets in your record book/sheet.

You will also be asked to keep a record of your blood glucose readings so that your diabetes health professionals can help you look for any patterns in your blood glucose levels. They can also advise you on what to do if your blood glucose levels are outside the target range.

Your diabetes educator can help you choose a suitable blood glucose meter. They can also assist with further information on blood glucose monitoring technique, access to supplies and disposal of sharps (e.g. lancets, insulin pen needles).

There are other forms of glucose monitoring (such as continuous glucose monitoring or flash glucose monitoring). These may be useful but do not replace (finger-prick) blood glucose self-monitoring.

Your doctor or diabetes educator will advise you on individual blood glucose targets.

Medication

If your blood glucose levels cannot be managed by healthy eating and physical activity alone, your doctor may suggest medication.

Insulin

Insulin treatment may be needed to bring blood glucose levels into the target range.

Insulin is given by injection using an insulin pen device. This device can deliver the insulin at a push of a button. If you require insulin, your diabetes educator or doctor will teach you how to use the insulin device and where to inject the insulin. The injected insulin will help to lower your blood glucose level to within a range that is best for you, as well as your baby's growth and development. The insulin does not cross the placenta or affect your baby.

Your diabetes health professional will advise you of the appropriate starting dose of insulin. It is common for the insulin dose to be increased regularly throughout the second half of pregnancy (due to placental hormones causing insulin resistance). This continues until close to your delivery date.

Your diabetes team will regularly review your blood glucose levels and discuss with you the correct insulin doses to take.

Many women have worries or feel anxious about starting insulin therapy. It can take time to get used to a new treatment but your health professional is there to help you. Some women worry about giving themselves injections, but keep in mind that these days, insulin-injecting devices are relatively easy to use and have extremely fine needles. The injection of insulin will not harm your baby.

Metformin

Most diabetes tablets are not suitable for use during pregnancy, but a medication called metformin is sometimes used. Your doctor or diabetes educator will discuss whether this medication is suitable for you. If your doctor recommends metformin they will advise you of a starting dose and when to take this medication. You will need to continue to monitor your blood glucose levels and your diabetes health professionals will continue to review your doses.

Common feelings about starting medication

Some women worry that starting medication means they haven't looked after their gestational diabetes well enough or that the diabetes is getting worse. Needing medication doesn't mean that you have failed in any way, it just means that your body needs some extra help to keep blood glucose levels in the target range. Remember too, that every woman's experience with gestational diabetes and how it is managed will be different.

Every woman's experience with gestational diabetes and how it is managed will be different.

Diabetes supplies

The National Diabetes Services Scheme (NDSS) gives you access to subsidised products to help you manage gestational diabetes. These products include:

- subsidised blood glucose testing strips
- free insulin syringes and pen needles (if you need insulin to manage gestational diabetes)

You must be registered with the NDSS to buy subsidised products through the NDSS. Once you have your NDSS registration number or card, you can get all your NDSS products from an NDSS Access Point. Most community pharmacies are NDSS Access Points. Your diabetes health professionals can help with information about your closest Access Point or you can call the NDSS Helpline on **1800 637 700**. Medications (including insulin) are not available through the NDSS and require a prescription.

You can get a further discount on some NDSS products if you hold one of the following concession cards:

- Health Care card
- Pensioner concession card
- Safety Net card
- Department of Veterans' Affairs card

Hypoglycaemia (hypos)

If you are taking insulin to manage your gestational diabetes, it is possible for your blood glucose levels to drop too low (although this is not common). A low blood glucose level is called hypoglycaemia or a 'hypo'.

This occurs when your blood glucose levels fall below 4mmol/L. A hypo can be caused by:

- delaying or missing a meal
- not eating enough carbohydrate
- being more active than usual
- too much insulin.

Symptoms of a hypo may include nausea, weakness, trembling or shaking, sweating and dizziness. If you are taking insulin to manage gestational diabetes and feel any of these symptoms, check your blood glucose level. If it is less than 4mmol/L, treat the hypo as described below. If you can't check your blood glucose level, treat these symptoms as if you are having a hypo.

Treat hypos quickly to stop your blood glucose level from falling even lower. To treat a hypo, have some easily absorbed carbohydrate, for example:

- Glucose gel or glucose tablets equal to 15 grams of carbohydrate OR
- 6–7 regular size jellybeans OR
- 3 teaspoons of sugar or honey OR
- ½ a glass (125ml) of fruit juice OR
- ½ a can (150ml) of regular soft drink (not 'diet').

After treating a hypo, wait 10–15 minutes then recheck your blood glucose levels to make sure they are above 4mmol/L. If symptoms continue, or if your blood glucose level is still below 4mmol/L, repeat the treatment. If your next meal is more than 20 minutes away, you will need to have some extra carbohydrate food such as a piece of fruit, glass of milk or tub of yoghurt.

You also need to remember to check that your blood glucose levels are above 5mmol/L before driving. Discuss driving with your diabetes health professional. For more information, refer to the NDSS booklet *Diabetes and Driving* available from **ndss.com.au**.

Discuss managing hypos with your diabetes health professionals.

Hypos have not been shown to cause harm to the baby. Hypos can, however, be a risk to the safety of the mother, so treat hypos without delay.

The birth

Your diabetes and pregnancy health professionals will continue to monitor you and your baby throughout your pregnancy.

This will include regular checks of your blood pressure and ultrasounds to check your baby's growth and well-being. Extra blood tests will also be organised as needed. Most women with gestational diabetes will be able to deliver close to their due date and most are able to have a vaginal delivery.

If the baby grows too large or there are any other concerns about the pregnancy, the health professionals looking after your pregnancy may suggest 'inducing' the birth one or two weeks early. If an earlier birth is required, labour is usually induced after using a medication that prepares the cervix for delivery.

Birth plan

You can discuss your birth plan with your doctor or midwife. This is a good way to let them know what kind of care you would like in labour, birth and afterwards (if possible). It's a good idea to discuss your birth plan from about 36 weeks onwards, remembering that this may need to be adjusted depending on how your pregnancy is progressing.

Caesarean section

As with all pregnant women, there is a possibility that you may need a caesarean birth. Sometimes a caesarean may be required if the baby is too large or if there are other obstetric concerns such as low placenta, breech presentation or previous caesarean delivery. It's a good idea to discuss caesarean births with your health professionals so that if the need arises, you are well-prepared.

Insulin infusion (drip)

To manage blood glucose levels during labour or caesarean delivery you may need insulin by injection or by infusion (drip). This is more likely in women who have needed treatment with high doses of insulin during the pregnancy. Some women may also need a glucose drip during labour, although this is uncommon.

After the birth

After the birth, a paediatrician (a doctor who looks after babies and children), your obstetrician or a midwife will examine your baby. Your baby will be monitored carefully for the first 24–48 hours (heart rate, colour, breathing, blood glucose levels).

The midwives will perform blood glucose tests (using heel pricks) on your baby to make sure their blood glucose levels are not too low (that is, less than 2.6mmol/L). If your baby's blood glucose level is low, your baby may need to have supplementary feeds or some glucose. Talk to your midwife about using your breast milk for supplementary feeding.

Benefits of 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 help with bonding between you and your baby. Breastfeeding has also been shown to have long-term health benefits for mother and baby, including reducing the risk of future type 2 diabetes.

You will be encouraged to have skin-to-skin contact with your baby and breastfeed as soon as possible after delivery. Breastfeeding at least every three hours during the first few days will help maintain your baby's blood glucose levels. Your midwife or lactation consultant can support you to establish breastfeeding and help with strategies for successful breastfeeding.

Breastfeeding information and support

For breastfeeding information and support, contact the National Breastfeeding Helpline on 1800 686 268. Support is available 24 hours a day, 7 days a week.

Local breastfeeding support networks are also available in hospitals and in the local community. Ask your midwife, lactation consultant or child and family health nurse for more information.

The practice of expressing and storing breast milk during late pregnancy is becoming more common among women with gestational diabetes, with the hope of having some colostrum (the first milk) to offer if baby has low blood glucose levels after the birth. It is very useful to learn the skill of hand expressing, so that you are prepared for when baby arrives. However, the practice of antenatal expressing may not be suitable for all women, so it's recommended that you ask your health care professionals for advice if you are considering expressing breastmilk during late pregnancy.

Medication after the birth

Medications used to treat gestational diabetes (insulin or metformin) will usually be stopped after your baby is born. Your health care team will advise you how often to monitor your blood glucose to see whether the levels have returned to normal (generally 4 to 8 mmol/L).

6–12 weeks after the birth

Most women will no longer have diabetes after the baby is born. However, some women will continue to have high blood glucose levels after delivery. An oral glucose tolerance test (OGTT) is very important to check that blood glucose levels have returned to normal. You will be advised to have this test 6–12 weeks after your baby is born (or as soon as possible after this time).

Remember to remind your doctor (general practitioner) that you have had gestational diabetes.

Future health

Once you have had gestational diabetes, you are at a higher risk of developing type 2 diabetes in the future. If you have another pregnancy, there is also an increased risk of developing gestational diabetes again.

Eating well and being active can reduce your risk of developing type 2 diabetes. Depending on your risk factors and the results of your oral glucose tolerance test (done after you give birth), you will also need to be checked for type 2 diabetes again every one to three years.

You can reduce your risk of future diabetes by:

- being in the healthy weight range
- making healthy food choices
- being physically active every day.

Babies born to women who have had gestational diabetes also have an increased risk of childhood obesity and type 2 diabetes later in life. It is recommended that the whole family eat well and stay active to reduce this risk.

After the birth of your baby, you will be sent another booklet, *Life after gestational diabetes*, as well as regular reminders for follow-up type 2 diabetes checks and healthy lifestyle information.

Approximately half of all women who have had gestational diabetes will develop type 2 diabetes or prediabetes within 10–20 years.

National Diabetes Services Scheme

What is the NDSS?

The NDSS supports people with diabetes by giving them access to reliable and affordable services and products.

The NDSS is an initiative of the Australian Government. Diabetes Australia has administered the NDSS on behalf of the Australian Government since it's inception in 1987. Registration with the NDSS is free and open to all Australians who have been diagnosed with diabetes and have a valid Medicare card.

The NDSS provides a range of services and support to help you manage your diabetes. These include the NDSS Helpline on **1800 637 700** for advice on diabetes management, subsidised NDSS products, and information, support and education to help you learn more about managing your diabetes.

Where can I access NDSS services and products?

You can access NDSS services and support by calling the NDSS Helpline on **1800 637 700**. The NDSS Helpline can also put you in contact with your NDSS Agent. NDSS Agents are the diabetes organisations in each state and territory, and the names and contact details of all Agents are provided at the end of this book.

You can access subsidised NDSS products in all states and territories through NDSS Access Points, which are usually community pharmacies. You can find your closest Access Point by calling the NDSS Helpline on **1800 637 700**.

Services and support

Our services and support include access to:

- information about services, diabetes self-management advice, and ordering NDSS products
- programs and activities for people with diabetes, such as healthy eating programs and physical activity programs
- group support programs
- fact sheets, brochures and other resources about diabetes
- diabetes health professionals.

National Gestational Diabetes Register

The National Gestational Diabetes Register was established within the NDSS to help women who have had gestational diabetes manage their health during pregnancy and into the future. When you first register with the NDSS with gestational diabetes you are automatically included on the Register. As part of the Register, both and your doctor will be sent reminders about having regular type 2 diabetes checks after your baby is born.

If you would like more information about the National Gestational Diabetes Register, go to **ndss.com.au** or call the NDSS Helpline on **1800 637 700**.

NDSS agent contact details

New South Wales and the Australian Capital Territory
Diabetes NSW & ACT
diabetesnsw.com.au

Northern Territory
Healthy Living NT
healthylivingnt.org.au

Queensland
Diabetes Queensland
diabetesqld.org.au

South Australia
Diabetes SA
diabetessa.com.au

Tasmania
Diabetes Tasmania
diabetestas.org.au

Victoria
Diabetes Victoria
diabetesvic.org.au

Western Australia
Diabetes WA
diabeteswa.com.au

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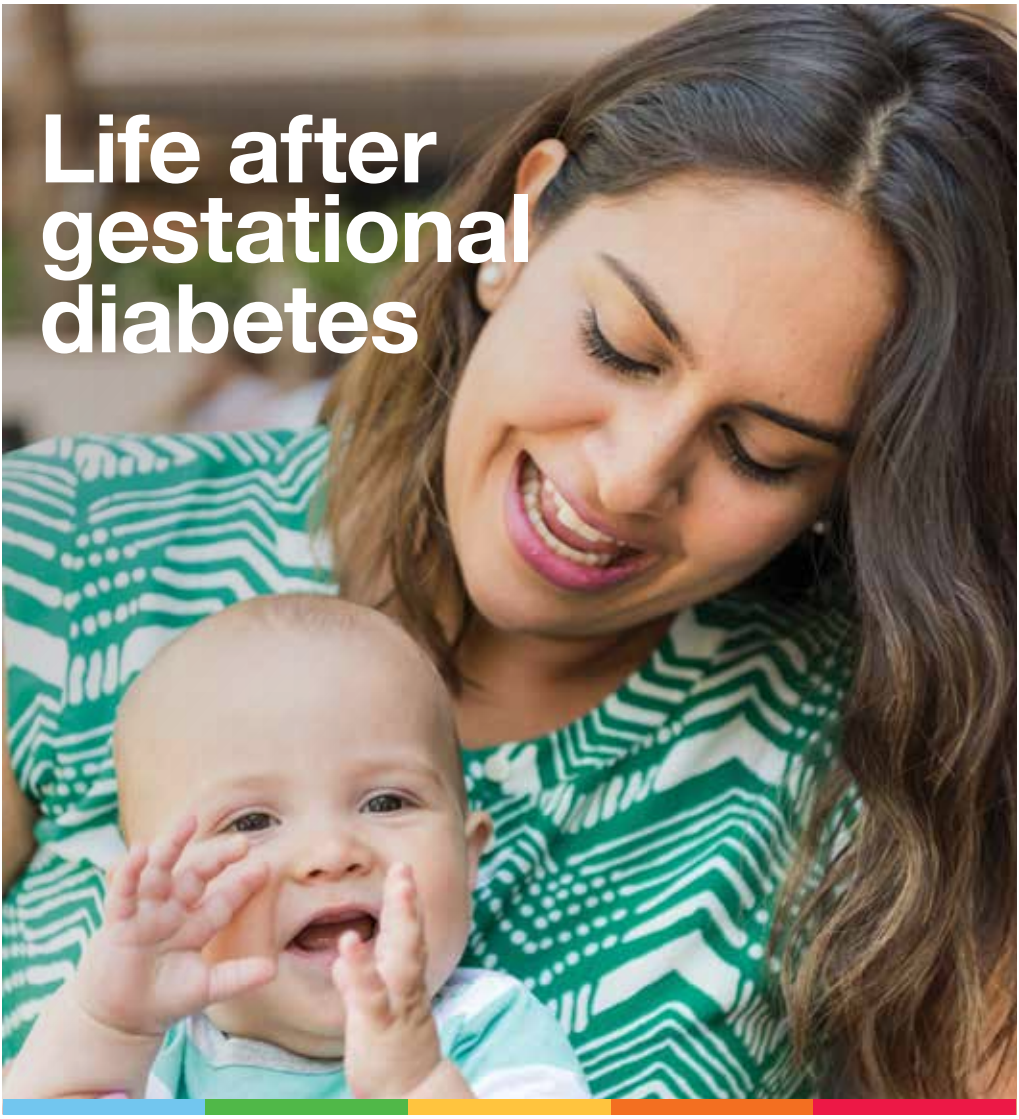
For further information regarding this publication, its development or availability call the NDSS Helpline on **1800 637 700** or email **info@ndss.com.au**

NDSS Helpline 1800 637 700
ndss.com.au

ndss
National Diabetes Services Scheme
An Australian Government Initiative

NDSS Helpline 1800 637 700
ndss.com.au

Life after gestational diabetes



Find this resource at ndss.com.au

diabetes australia

The NDSS is administered by Diabetes Australia

Contents

If receiving information about pregnancy or gestational diabetes raises personal concerns for you or causes you any distress, you can opt out from receiving further communications by visiting our website at **ndss.com.au/gdm-update** or calling the NDSS Helpline on **1800 637 700**. If you need support, ask your GP or local hospital maternity service about support services available in your area.

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NDSSA5B003

Gestational diabetes — what next?

This booklet is for women who have had a pregnancy with gestational diabetes. It provides information on looking after your health after pregnancy and into the future.

This booklet has been sent to you from the National Gestational Diabetes Register. When you registered on the National Diabetes Services Scheme (NDSS) with gestational diabetes, you were automatically included on the National Gestational Diabetes Register.

As part of the Register, you and your GP will be sent reminders about postnatal follow-up and regular type 2 diabetes checks. This booklet does not take the place of the valuable advice you receive from your health professionals.

For more information about the National Gestational Diabetes Register

- **Call the NDSS Helpline on 1800 637 700**
- **Visit ndss.com.au**

After gestational diabetes

Gestational diabetes is a form of diabetes that occurs during pregnancy. For most women, diabetes disappears after pregnancy; however, there is an increased risk of future diabetes.

As many as 1 in every 2 women who have had gestational diabetes will develop type 2 diabetes or pre-diabetes within 10–20 years.

Women who have had gestational diabetes are also at higher risk of developing gestational diabetes again in a future pregnancy.

Pre-diabetes is a condition where the blood glucose levels are higher than normal but not high enough to be diagnosed with type 2 diabetes. Having pre-diabetes means that you are at increased risk of developing type 2 diabetes.

Type 2 diabetes is a form of diabetes that occurs when the pancreas can't make enough insulin and the body cells can't respond properly to insulin, leading to high blood glucose levels.

Risk factors

Gestational diabetes is one risk factor for developing pre-diabetes or type 2 diabetes. Your risk also increases if you have other risk factors, including:

- A family history of type 2 diabetes
- Being above the healthy weight range or putting on weight over time
- An inactive lifestyle
- Having an Aboriginal or Torres Strait Islander background
- Being from a Melanesian, Polynesian, Indian subcontinent, Middle Eastern or Asian background
- Having polycystic ovary syndrome
- Age – your risk increases as you get older
- Taking some types of antipsychotic or steroid medications.

Talk to your doctor about your risk factors for type 2 diabetes.

Why is diabetes a problem?

Diabetes can develop at any age. If left undetected or unmanaged, it may cause damage to the eyes, kidneys, nerves and blood vessels. The risk of long-term health problems can be reduced if diabetes is detected early and managed well.

Pre-diabetes

Pre-diabetes is a condition that occurs before type 2 diabetes develops. It has no signs or symptoms. The only way to diagnose pre-diabetes is through a blood test. If you have pre-diabetes, it means that you are at high risk of developing type 2 diabetes.

The good news is that with a healthy lifestyle — including regular physical activity, making healthy food choices and being a healthy weight — you can reduce your risk of type 2 diabetes by almost 60%.

Type 2 diabetes

If you develop type 2 diabetes, and it's detected early and well-managed, you can continue to lead a healthy life. Type 2 diabetes is managed with a healthy lifestyle, regular health checks and medication (as needed).

Type 2 diabetes can sometimes be difficult to detect. Many people don't know they have it, which is why regular checks for diabetes are essential.

If you have any symptoms of diabetes, see your doctor promptly for a health check and remind them that you have had gestational diabetes.

Symptoms of type 2 diabetes can include:

- feeling tired and low on energy
- being thirsty and drinking more than usual
- going to the toilet (to pass urine) more often (especially at night)
- sores or cuts that won't heal or skin infections
- blurred vision
- pain or tingling in the legs or feet.

Gestational diabetes in future pregnancies

Many women who have gestational diabetes will develop it again in a future pregnancy. To reduce your chances of getting gestational diabetes again, BEFORE your next pregnancy:

- Aim to have your weight as close to the healthy range as possible
- Be active for at least 30 minutes each day
- Make healthy food choices
- Ask your doctor for a diabetes check
- Ask your health professionals for advice on healthy weight gain during pregnancy

See page 25 for more information about planning for another pregnancy.

Steps to a healthy life

Step 1 Diabetes checks

Your 6–12 week oral glucose tolerance test (OGTT)

As many as **1 in every 5 women** with gestational diabetes will continue to have high blood glucose levels after their baby is born. For this reason, it is recommended that you have a follow-up oral glucose tolerance test (OGTT) 6–12 weeks after your baby is born (or as soon as possible after this time). This is to check that your blood glucose levels have returned to the normal range.

After a pregnancy with gestational diabetes, many women find it hard to make the time to return for their 6–12 week OGTT, or forget to have this test done. If you haven't had this test done yet, it's not too late — your GP can organise this for you.

Follow-up checks for diabetes

Regular diabetes checks are recommended for all women who have had gestational diabetes.

As a general guide, diabetes checks are recommended:

- Every 1–3 years depending on your risk factors for type 2 diabetes
- If you are planning another pregnancy

If your results show that you have pre-diabetes, annual blood glucose checks are recommended.

Your GP will advise you on the type of test and how often you need to have this done. This will depend on your risk factors for type 2 diabetes, the results of previous tests and whether you are wanting to have any more pregnancies (see page 25).

For the majority of women, ongoing type 2 diabetes checks are usually a simple blood test.

Remember, even if your follow-up checks show that you don't have diabetes, remind your GP that you have had gestational diabetes and have follow-up checks again every one to three years.

People with type 2 diabetes often feel OK without noticing symptoms for some years. That is why it's important to see your GP for regular diabetes checks. Detecting diabetes early can help you manage the condition and stay healthy.

Steps to a healthy life

Step 2 Make healthy food choices

Healthy eating can help reduce your risk of developing type 2 diabetes. You don't need to be on a special diet — making healthy food choices, being active every day and managing your weight are keys to reducing your risk.

To get the right balance of healthy foods choose:

- At least 2 serves of fruit and 5 serves of vegetables each day
- High-fibre, wholegrain breads, cereals, and grains
- Lean meats, skinless chicken, eggs, tofu, or fish (aim for 2–3 fish meals each week)
- Legumes, such as lentils, chick peas or baked beans (aim for 2 legume meals each week)
- Reduced-fat dairy foods (or soy-based alternatives) without added sugars
- Small amounts of healthy fats and oils, such as avocado, nuts and seeds, nut butters, and poly or monounsaturated oils/spreads.

Putting together healthy meals

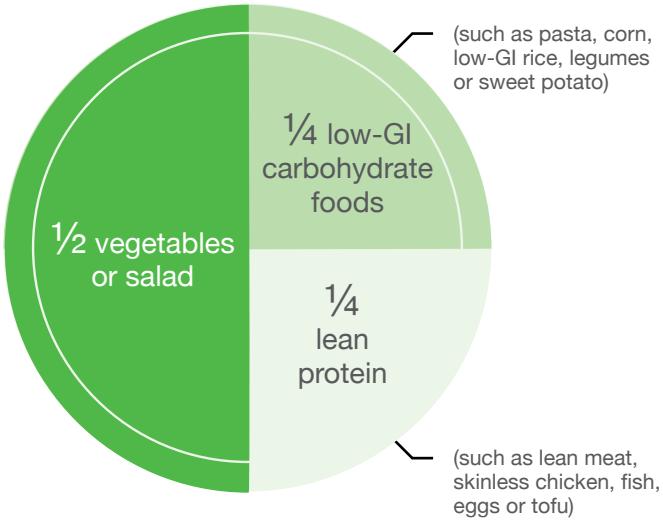
Getting the right balance of healthy foods and choosing serving sizes to suit your needs can help you to reduce your risk of type 2 diabetes and maintain a healthy weight.

When putting a healthy main meal together:

- Fill half of your plate with a variety of vegetables or salad (not including potato, corn or sweet potato)
- Fill a quarter of your plate with a lean protein food, such as lean meat (beef, lamb, pork), skinless chicken, fish/seafood, tofu or eggs
- Fill a quarter of your plate with a carbohydrate food that has a lower GI, such as pasta, basmati rice (white/brown), SunRice™ Low GI rice (white/brown), wholegrain bread, corn, sweet potato, low-GI noodles or legumes (such as lentils, chickpeas, kidney beans)

Include healthy fats and oils as part of a balanced meal, such as olive oil in cooking or as a salad dressing, avocado in a salad or nuts/seeds in a stir-fry.

See page 13 for an example of a healthy meal plan.



Snack wisely

Whether or not you need to snack between meals depends on your activity levels, weight and eating patterns. If you are breastfeeding, your appetite may be higher than usual, making snacks important for your energy and nutrient needs.

Snacking can be a great way to add extra nutrition to your day. However, some snacks can be high in kilojoules/calories, saturated fat and sugar and can make it difficult to maintain a healthy weight.

If you choose to snack it's important to make healthy choices and watch your portion sizes.

Ideas for healthy snacks

- 1 serve of fresh whole fruit (e.g. 1 medium apple, 1 small banana)
- 2 small fruits (e.g. mandarins, plums or kiwi fruit)
- 1 cup fresh fruit salad or mixed berries (fresh or frozen)
- 1 cup of reduced-fat milk
- 1 small tub reduced-fat plain or Greek yoghurt topped with berries/passionfruit
- Vegetable sticks — carrots, celery, capsicum, cherry tomato with hommus
- 1 cup air-popped (not microwave) popcorn
- 4 Vitaweats™ or Vitagrains™ with sliced avocado and tomato
- 2 Ryvitas® lightly spread with peanut butter
- 30g (a handful) of unsalted, mixed nuts
- 1 small packet of roasted chickpeas (e.g. Happy Snack Company™)
- Small can of tuna (90g) or a hard-boiled egg

Watch what you drink

What you choose to drink is important for good health.

Drinks for every day:

Water is the best everyday drink, but alternatives include soda water or sparkling mineral water (you may wish to flavour with sliced lemon/lime/frozen berries/cucumber/fresh mint). Other suitable choices are tea (black, green or herbal) or coffee/decaffeinated coffee (black or with skim/reduced fat milk). As an occasional substitute, diet soft drink or diet cordial may add variety without extra sugar or kilojoules/calories.

Drinks to limit or avoid:

Soft drinks, energy drinks and cordials are high in sugar and have no nutritional value. These should be avoided. Other drinks high in kilojoules/calories such as fruit juice and flavoured milks should be limited and consumed in small amounts.

Alcohol is also high in kilojoules/calories which can make it difficult to manage your weight. If you choose to drink alcohol, current health guidelines recommend **no more than 2 standard drinks a day**.

It is easy to overestimate a standard drink. One standard drink is equal to:

For breastfeeding women, current guidelines recommend that **not** drinking alcohol is the safest option. However, should you choose to drink alcohol, no more than 2 standard drinks a day are advised. If you are planning to drink alcohol, breastfeed before drinking. Expressing breastmilk before drinking alcohol may also be an option for some women — ask a health professional for advice or contact the Australian Breastfeeding Association for more information.

Tips for healthy eating

Plan healthy meal and snacks

Eat 2 fruit and 5 vegetables everyday

Take care with serve sizes

Limit fast foods and takeaways

Avoid foods and drinks high in sugar

Choose healthy snacks

Enjoy healthy meals as a family

Limit how much alcohol you drink

Sample daily meal plan

The following sample meal plans provide a guide to healthy meals and snacks. The recommended amounts of food are based on the Australian Guide to Healthy Eating suggested serves. The amounts shown are for one person and are a guide only. A dietitian can help you with advice on healthy eating to meet your individual needs and food preferences.

	Women who are not breastfeeding
Breakfast	1½ cups high high-fibre breakfast cereal (e.g. Fibre Plus™) + 1 cup (250ml) reduced-fat milk
Morning snack	1 cup (250ml) reduced-fat milk (can make into coffee)
Lunch	2 slices wholegrain bread + 1 boiled egg / small tin (90g) tuna 2 cups salad OR 2 cups vegetable and lentil soup + small wholegrain bread roll + 1 cup side salad
Afternoon snack	1 serve of fresh fruit (e.g. an apple or 2 small plums or 1 cup mixed berries or ½ mango)
Dinner	**Spaghetti Bolognese**: 1 cup cooked pasta + 1 cup lean mince bolognaise sauce + 2 cups salad OR **Chicken Curry**: 1 cup cooked basmati rice + 1 cup skinless chicken cooked with spices/ curry paste in a tomato-based sauce + 2 cups non-starchy vegetables (e.g. spinach, broccoli, cauliflower, zucchini) Use healthy fats and oils in cooking.
Supper	1 serve of fresh fruit (e.g. an apple or 2 small plums or 1 cup mixed berries or ½ mango) + small tub (100g) reduced-fat yoghurt
Drinks	Water, soda/mineral water, tea/coffee

	Women who are exclusively breastfeeding*
Breakfast	1½ cups high-fibre breakfast cereal (e.g. Fibre Plus™) + 1 cup (250ml) reduced-fat milk + 1 slice wholegrain toast + olive oil-based spread and vegemite
Morning snack	1 cup (250ml) reduced-fat milk (can make into coffee) + 4 wholegrain crispbreads (e.g. Vitaweats™ or Vitagrains™) + tomato / avocado
Lunch	2 slices wholegrain bread + 1 boiled egg / small tin (90g) tuna + 2 cups salad OR 2 cups vegetable and lentil soup + small wholegrain bread roll + 1 cup side salad
Afternoon snack	Small handful (30g) of unsalted nuts + 2-3 small dates + carrot/cucumber sticks
Dinner	**Spaghetti Bolognese**: 1½ cups cooked pasta + 1 cup lean mince bolognaise sauce + 2 cups salad OR **Chicken Curry**: 1½ cups cooked basmati rice + 1 cup skinless chicken cooked with spices/curry paste in a tomato-based sauce + 2 cups non-starchy vegetables (e.g. spinach, broccoli, cauliflower, zucchini) Use healthy fats and oils in cooking.
Supper	1 serve of fresh fruit (e.g. an apple or 2 small plums or 1 cup mixed berries or ½ mango) + small tub (100g) reduced-fat yoghurt
Drinks	Water, soda/mineral water, small amount of tea/coffee

*If you are breastfeeding, your energy needs will reduce as the number of breastfeeds each day slows down. In this case, the meal plan for women who are not breastfeeding can be used as a base and adjusted, according to your appetite to include more vegetables, fruits, wholegrain bread and cereals, and reduced fat dairy products as needed.

Steps to a healthy life

Step 3 Be active every day

Being active every day can help you reduce your risk of future type 2 diabetes, as well as the risk of gestational diabetes in another pregnancy. Physical activity can also improve your general fitness, energy levels, mood and emotional well-being, and help you maintain a healthy weight after pregnancy.

Starting out

Talk to your doctor once you are ready to return to being active after your baby is born. Building up your activity levels gradually is recommended. Some hospitals run postnatal physical activity programs or provide physiotherapy services to help new mums get back into regular physical activity safely.

Being active

As a general guide, aim for at least 30 minutes of moderate physical activity on most days of the week. This can also be broken up into shorter periods of at least 10 minutes, three times a day.

'Moderate physical activity' means that while being active you will have a slight but noticeable increase in breathing and heart rate (but you should still be able to hold a conversation).

Moderate activities include:

- swimming
- brisk walking
- aqua fitness classes
- stationary cycling
- exercise classes or walking groups (where you can bring your baby)

Tips for being active:

- Walking with a pram or stroller is a great way to be active and get out and about with your baby.
- Joining a gym, swim centre or outdoor exercise group that provides childminding can be a fun and social way to be active.
- Asking friends or your mothers' group if they want to go walking or meet up at the pool or gym can be of benefit to everyone.

Day-to-day activity

You can also increase your day-to-day activity by walking to the shops, playing with your children at the pool or park and being active around the house. Fun family activities such as dancing or playing in the backyard are great ways to be more active. Reducing the amount of time spent sitting has also been shown to help reduce the risk of type 2 diabetes.

Resistance exercise

Light to moderate resistance exercise is also beneficial for muscle strength and can help with weight loss. Resistance exercise includes using free weights, machine weights or your own body weight. Talk to a qualified exercise professional about a resistance program that suits your needs.

Pelvic floor exercises

High impact activities or those that put pressure on the pelvic floor should only be started gradually after pregnancy. This will depend on how well your pelvic floor has recovered and how your baby was delivered. Learning how to do pelvic floor exercises can help you strengthen these muscles. A physiotherapist or exercise physiologist can provide advice on pelvic floor exercises — ask your doctor or local hospital about services in your area.

Physical activity for weight loss

If you are trying to lose weight, aim to increase your daily activity levels to more than 30 minutes each day to help with weight loss.

Plan to be active

Find out what activities are available in your area through your local council, community health centre or baby health clinic. Make a plan to include regular physical activity in your day to help you achieve your goals.

Monitoring your daily activity by keeping an exercise diary or using a device such as an activity tracker or app can also encourage you to be active.

To exercise safely remember to:

- include a 5-10 minute warm up and cool down
- drink plenty of water during and after physical activity
- wear loose, light clothing to avoid overheating
- avoid exercise when you are hungry, unwell or have a high temperature
- STOP exercising and seek medical advice if you experience chest pain, dizziness, back pain or pelvic floor weakness.

Tips for being active

Be active for at least 30 minutes/day

Exercise in a group or with friends

Stay active with your family

Try to limit the time spent sitting

Add some resistance exercise

Look after your pelvic floor

Steps to a healthy life

Step 4 Aim for a healthy weight

Aiming for a healthy weight after your pregnancy will help reduce your risk of developing type 2 diabetes in the future.

For most women it will take some months to return to their pre-pregnancy weight. For the best long-term health outcomes you should aim to reach your pre-pregnancy weight within 6–12 months after your baby is born.

If you are still carrying extra weight after your baby turns one year old, losing as little as 5–10% of your body weight will still reduce your risk of type 2 diabetes and improve your overall health.

If you are planning another pregnancy, it's important to aim for a healthy weight **before** you fall pregnant. This is one way to help reduce your risk of getting gestational diabetes again.

Setting realistic goals can help you stay on track. If you need extra support with managing your weight, see a dietitian for advice.

Benefits of breastfeeding

If you are breastfeeding your baby, continuing to do so for the first six months or more may help you with managing your weight and reduce your future risk of type 2 diabetes.

Steps to a healthy life

Step 5 Encourage a healthy lifestyle for the whole family

Encouraging the whole family to eat well and be active can have benefits for everyone.

Type 2 diabetes tends to run in families, so it's a good idea to discuss diabetes with your relatives (parents, grandparents, aunts, uncles). Ask if they have recently been checked for diabetes and if not, suggest they visit their GP for a health check.

Children born to mothers who have had gestational diabetes also have a greater chance of being overweight and developing type 2 diabetes later in life. For this reason it's recommended that the whole family eat well and stay active to reduce the risk.

Children do not need to be routinely checked for type 2 diabetes*. However, a GP may recommend type 2 diabetes checks for older children or teenagers if there are additional risk factors such as carrying too much weight, a strong family history of type 2 diabetes, or in children from a high-risk cultural background.

** Type 2 diabetes is different to type 1 diabetes (the type more commonly seen in childhood). Type 1 diabetes is an auto-immune condition that may be suspected in a child who is going to the toilet excessively to pass urine, very thirsty, losing weight and becoming tired and generally unwell. Children with these symptoms need urgent medical care. There is no additional risk of type 1 diabetes in children whose mothers have had gestational diabetes.*

Tips for healthy families

Once you have introduced a range of solid foods to your child, they can start to eat the same healthy foods as the rest of the family. For a healthy family lifestyle:

- Base family meals on fresh foods such as fruits, vegetables, lean meats, dairy foods and wholegrains (with appropriate types of foods and textures for children's ages and stages)
- Stock your fridge and pantry with healthy foods for everyone — try to avoid having 'junk' food in the house
- Pack healthy snacks and lunches for day care, school and work
- Avoid sugary drinks and limit pre-packaged snacks
- Encourage your child/children to always have a water bottle handy and pack one for yourself too
- As your children get older, try to eat as many meals as you can together as a family
- Take time to stop and eat during your busy day
- Avoid snacking on children's leftovers
- Be active as a family — try bike riding, swimming, playing in the backyard or at the park, bushwalking or walking the dog
- Keep an eye out for new recreational facilities or activity programs in your neighbourhood.

Goal setting

Setting goals can help you stay motivated and focused on achieving good health. Setting a few smaller goals is more likely to lead to success than having one big goal that is hard to reach. Thinking of one or two things you are ready, willing, and able to change to improve your health, is a great place to start. SMART goals are those which are:

S

Specific – make goals that clearly describe what you want to do.

For example, rather than a goal '*I will get fit'* a specific goal would be '*I will take the dog for a walk*'

M

Measurable – you need to be able to measure whether or not have achieved your goals.

A measurable goal would be, '*I will take the dog for a half an hour walk at least 3 mornings a week*'

A

Achievable – setting small goals and building on them is better than setting a large goal that will be difficult to achieve.

For example, the goal '*I will walk every morning*' may not be achievable but '*I will walk three mornings a week*' may be.

R

Relevant – goals need to be important to you and fit into your life.

For example, the goal '*I will walk at 5am every day*' may not fit into your life if you are not getting much sleep or there is no-one to look after your child at that time.

T

Timely – set a date for starting your goal and for achieving it.

For example, '*I will walk on Mondays, Wednesdays and Fridays starting next week*'.

Setting yourself up for success

Once you have decided on your goals, planning ahead can help you achieve them. Make a list of what you need to do to get started, for example:

- Making sure you have the right footwear
- Checking your calendar for what is happening next week
- Making sure your alarm is set to wake up
- Putting it in your electronic diary or calendar as an appointment
- Getting your walking clothes out and ready to put on
- Having the dog lead somewhere handy.

Barriers

Often things can get in the way of you achieving your goals. Thinking about these things in advance means you are more likely to avoid or overcome them. These may include things such as the weather, work or family schedules or poor sleep patterns.

Checking your progress

Checking your progress from time to time can help you stay on track. Depending on your goal you could do this by keeping a food or exercise diary or a physical activity tracker.

If you haven't achieved your goals, don't be discouraged. Review any goals you are finding difficult and think about what you can do differently. Sometimes you may need to change something about your goals to help keep you on track. For example, arranging to meet a friend for a walk or joining an exercise class may be an alternative to walking the dog that still achieves the same results.

Sharing your goals

Sharing your goals with family and friends can help to motivate you, as they may want to support you to achieve your goals or join you. Discussing your goals with your health professionals and monitoring your progress can also help keep you 'on track'.

Reward yourself

It's a great idea to reward yourself when you achieve your goals. A new outfit, massage or book can help motivate you to keep up the good work.

Goals may be challenging at first, but with time and effort, your health goals can become part of your everyday life.

Planning for another pregnancy

Before your next baby

If you are planning for another pregnancy, it's important to:

1. See your GP for a diabetes check

If you are planning for another pregnancy it's recommended that you see your GP to discuss pre-pregnancy planning and care. Remind them that you have had gestational diabetes. This should include a check for type 2 diabetes (usually an oral glucose tolerance test) before trying for another baby.

2. Eat well, be active and aim for a healthy weight

A healthy lifestyle and aiming for a healthy weight before trying for another baby can help reduce the risk of getting gestational diabetes in another pregnancy.

3. Get tested for gestational diabetes early in pregnancy

If you have had gestational diabetes you are at risk of getting it again in another pregnancy. It's recommended that you get tested for gestational diabetes earlier in all future pregnancies. Ask your health professionals for advice on early testing.

What if I develop diabetes before my next pregnancy?

If you are diagnosed with pre-diabetes or type 2 diabetes, it's important to plan and prepare for pregnancy before you start trying for another baby.

Pre-diabetes

If you have been diagnosed with pre-diabetes, you should see your doctor before you start trying for another baby. Your doctor is likely to recommend an oral glucose tolerance test (OGTT) before your next pregnancy to check that your pre-diabetes hasn't progressed to type 2 diabetes. Your doctor will decide whether or not you need to have this done depending on how long it has been since your last OGTT.

Women with pre-diabetes will usually be referred to specialist services early in their pregnancy and monitored closely throughout pregnancy. You may be advised to start management for gestational diabetes straight away without another OGTT until after that pregnancy. Or you may be advised to have an OGTT early in your pregnancy (usually before 16 weeks).

Type 2 diabetes

Women with known diabetes before pregnancy can have a healthy baby, but there are extra risks during pregnancy, including an increased risk of birth defects and miscarriage. The risks are higher when blood glucose levels before and during early pregnancy have not been within the target range. There is also an increased risk of other complications during pregnancy, such as developing high blood pressure and pre-eclampsia, as well as having a large baby. Careful planning and support from a team of health professionals will help reduce these risks. It's recommended to have a review of your diabetes and general health at least 3-6 months before you start trying for a baby.

The following checklist can help women with type 2 diabetes plan for pregnancy:

- ◯ Use contraception until you are ready to start trying for a baby (ask your doctor which contraception is the most reliable and suitable for you)
- ◯ Talk to your doctor for general pregnancy planning advice and referral before pregnancy to specialist services for diabetes in pregnancy
- ◯ Make an appointment with health professionals who specialise in pregnancy and diabetes
- ◯ Aim to keep blood glucose levels in the target range and an HbA1c (average blood glucose levels) of 6.5% (48mmol/mol) or less
- ◯ Review your diabetes management with your diabetes health professionals
- ◯ Have all of your medications checked to see if they are safe to take during pregnancy
- ◯ Start taking a high-dose (2.5mg–5mg) folic acid supplement each day
- ◯ Have a full diabetes complications screening and your blood pressure checked
- ◯ Aim to have your weight as close as possible to the healthy weight range before you fall pregnant.

Use this checklist as a guide to discuss with your health professionals.

For more information go to: **ndss.com.au**

Looking after your health into the future

When you registered on the NDSS with gestational diabetes you were automatically included on the National Gestational Diabetes Register. The Register aims to help women with gestational diabetes manage their health during pregnancy and into the future. As part of the Register, both you and your doctor will be sent ongoing reminders about regular type 2 diabetes checks.

If you need more information or support after gestational diabetes, talk to your local health professionals. They can recommend services available in your area. Many state health departments also offer healthy lifestyle coaching services — ask your GP for more information.

You can also call the NDSS Helpline on **1800 637 700** to talk to a diabetes health professional for advice about reducing your risk of future type 2 diabetes. If you would like more information about the National Gestational Diabetes Register or to update your details, call the NDSS Helpline or go to **ndss.com.au**

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For further information regarding this publication, its development or availability call the NDSS Helpline on **1800 637 700** or email **info@ndss.com.au**

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Making healthy food choices

Healthy eating, along with regular physical activity, can help you look after your diabetes. It can also help you manage other risk factors like high blood pressure, or unhealthy cholesterol and triglyceride levels.

Healthy eating for people with diabetes is no different from what is recommended for everyone else. There is no need to prepare separate meals or buy special foods – the whole family can enjoy the same healthy meals.

There are various dietary approaches that may be suitable for people with diabetes. These include Mediterranean-style diets, low fat plant-based diets or lower carbohydrate eating plans.

The following guidelines are general recommendations suitable for most people with diabetes. However, a dietitian can help you to develop an eating plan to meet your food preferences and nutritional needs.

To make healthy food choices:

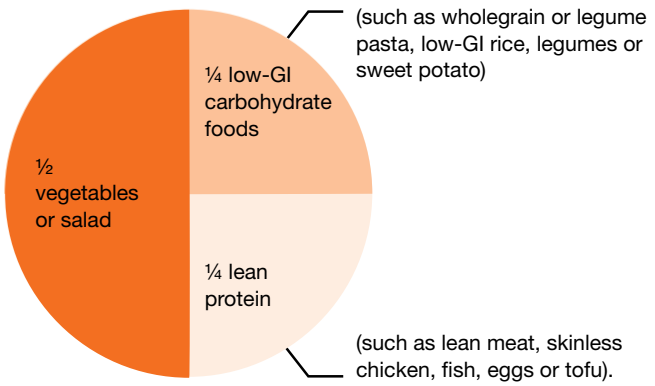
- eat regular meals to assist with managing energy and blood glucose levels
- choose high-fibre, lower glycaemic index (GI) carbohydrate foods
- limit foods that are high in saturated fat and choose healthy fats
- include lean protein foods with your meals
- choose foods low in added salt (sodium) and avoid adding salt to your food.

Eat regular meals in the right amounts

Aim to eat three meals during the day and choose serving sizes to meet your energy needs. Talk to your dietitian for advice about your individual needs and the serving sizes that are right for you.

When preparing a healthy meal aim to:

- fill half of your plate with a variety of non-starchy vegetables or salad
- fill a quarter of your plate (a palm-sized serving) with a lean protein source, such as lean meat, skinless poultry, fish, seafood, tempeh, legumes or eggs
- fill a quarter of your plate with a nutritious carbohydrate food that has a lower GI, such as wholegrain or legume pasta or noodles, brown, basmati or Doongara™ rice, quinoa, soba or mung bean noodles, legumes (such as chickpeas, kidney beans, lentils), barley, freekeh, corn, low-GI potato or sweet potato.



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Include some healthy fats and oils as part of a balanced meal – such as olive oil in cooking or as a salad dressing, avocado as a spread or nuts and seeds in a stir-fry or salad.

Choose high-fibre, lower GI carbohydrates

Carbohydrate foods are the main source of energy for your body. Your body breaks down carbohydrate from food into glucose, which then enters your bloodstream and is used by the body cells for energy. Glucose from carbohydrate foods is our body's preferred fuel source. Nutritious carbohydrate foods provide fibre and resistant starch for a healthy digestive system as well as many other vitamins and minerals.

Foods that contain carbohydrate include:

- breads, cereals and other grains or starchy foods, like rice, quinoa and pasta
- starchy vegetables, like potato, sweet potato and corn
- legumes such as lentils, chickpeas and dried or canned beans
- fruit and fruit products
- dairy products, like milk and yoghurt
- sugary foods and drinks
- other sweet foods, like honey, maple syrup and other syrups.

Eating the right type and amount of carbohydrate foods will help manage your blood glucose levels.

Including a small amount of carbohydrate food at each meal can help to spread the carbohydrate food you eat evenly across the day. This can help to maintain your energy levels without causing blood glucose levels to rise above or below your target range. However, everyone has different nutritional needs, so talk to your dietitian about the amount of carbohydrate that is right for you. If you take insulin, it's important to match your insulin dose and insulin type to your carbohydrate intake.

There are different types of carbohydrates. Some carbohydrates break down into glucose quickly and some break down slowly. The GI ranks how slowly or quickly carbohydrate foods affect blood glucose levels. High-GI carbohydrate foods break down into glucose quickly, which means a higher and faster rise
in blood glucose levels after eating.

Low-GI carbohydrate foods break down into glucose slowly. They result in a smaller and slower rise in blood glucose levels after eating compared with high-GI foods. The best carbohydrate choices are high in fibre and have a lower GI, such as dense grainy or seeded breads, oats, grains such as barley and quinoa, legumes, and most fruits.

See the 'Sample one-day meal plan' for one example of how to make the best carbohydrate food choices and how to spread these out over the day.

Sugar and sweeteners

Sugar is also a type of carbohydrate. A healthy eating plan can include a small amount of sugar, such as a teaspoon of sugar in a cup of tea or coffee, or a teaspoon of honey on porridge.

It's important to consider the nutritional value and the quantity of the foods you eat. High-sugar foods – such as sweets, lollies and regular soft drinks – provide no nutritional benefit and can cause your blood glucose level to rise above your target range. They can also lead to weight gain and poor health.

While alternative sweeteners are not necessary, nor do they provide any nutrition, some people may still choose to use these to add sweetness without adding sugar and kilojoules.

If you choose to use sweeteners, be aware that swapping sugar for a sweetener in a recipe – or buying products labelled 'sugar-free' – does not guarantee they are a healthy choice, or that they won't affect your blood glucose levels.

There are many different alternative sweeteners available. Always check the nutrition information to make sure the product meets your needs, or ask a dietitian. All of the sweeteners approved for sale in Australia have been tested and deemed safe for use by Food Standards Australia New Zealand.

Limit foods high in saturated fat and choose healthy fats

It's important to consider both the amount and the type of fat you eat. The main types of fat found in food are saturated, trans and unsaturated fats.

Saturated fats and trans fats

Saturated fats make it more difficult for the body's insulin to work properly and raise your bloods low-density lipoprotein levels (also known as LDL or 'bad' cholesterol).
It is therefore best to limit these in your diet and replace them with healthier fats. Saturated fat is found in animal foods like fatty meat, full-fat dairy foods, butter and cream, as well as plant sources such as palm oil and coconut oil. It's also found in many take-away and processed foods.

Trans fats can raise your blood LDL cholesterol and lower your high-density lipoprotein levels (also known as HDL or 'good' cholesterol). Most trans fats are formed during food manufacturing and can be found in fried foods and baked goods like biscuits, cakes and pastries.

Check the ingredients list for 'hydrogenated oils' or 'partially hydrogenated vegetable oils' and avoid foods that contain these as they are likely to be high in trans fats.

Unsaturated fats

Unsaturated fats include polyunsaturated fats and monounsaturated fats. These are healthier fats, as they help to reduce your LDL cholesterol levels and increase your HDL cholesterol levels. Replacing saturated fats with unsaturated fats can help to keep your blood vessels healthy and reduce your risk of heart disease.

Polyunsaturated fats include:

- the fat found in oily fish, such as mackerel, sardines, salmon and tuna (omega-3 fats)
- nuts and seeds such as walnuts, brazil nuts, pine nuts, sesame and sunflower seeds, chia seeds and flaxseeds
- sunflower, safflower, soybean, corn, cottonseed, grapeseed and sesame oils.

Monounsaturated fats include:

- avocado
- nuts and seeds such as almonds, cashews, hazelnuts, macadamias, pecans, peanuts and pistachios
- olive, canola, peanut and macadamia oils.

Tips to get the right balance of healthy fats

- Choose reduced or low-fat milk, yoghurt and cheese.
- Choose lean meat, trimmed of fat, and skinless cuts of chicken.
- Limit butter, lard, dripping, cream, sour cream, copha, coconut milk and coconut cream.
- Choose olive, sunflower, canola or other unsaturated oils for cooking and salad dressings.
- Limit pastries, cakes, puddings, chocolates, packaged biscuits and savory snacks to special occasions.
- Limit the use of processed deli meats (like salami) and sausages.
- Limit fatty take-away foods, such as chips, fried chicken, battered fish, pies and pastries.
- Snack on a handful of unsalted nuts, or add some nuts to a stir-fry or salad.
- Spread avocado on sandwiches and toast, or add to a salad.
- Use natural nut and seed spreads instead of butter on toast.
- Eat fish two or three times a week (especially oily fish).

Include lean protein foods

Protein foods can help you feel fuller for longer and are an important part of a balanced meal. Protein foods include meat, poultry, fish or seafood, eggs, nuts, seeds, dairy products, soy products (such as tofu and tempeh), and legumes (dried beans and lentils). Choose lean sources of protein foods.

Choose foods low in added salt and avoid adding salt to your food

Eating too much salt (sodium) is not good for your health and can result in high blood pressure. If your blood pressure is already high, cutting down on salt may help to lower it, and reduce your risk of heart disease and stroke.

Limit your salt intake by choosing more fresh foods that are naturally low in sodium. Look for low-salt or salt-reduced options when buying packaged foods, and avoid adding salt to foods during cooking or before eating. To add flavour without salt, use a wide variety of herbs, spices and condiments (such as lemon or lime juice and vinegar).

Eat plenty of vegetables

Eating plenty of vegetables is important for good health. Most vegetables are low in carbohydrate and kilojoules and will not affect your blood glucose levels. They are a good source of fibre, vitamins and minerals.

Eat a variety of different coloured vegetables and salads, such as tomatoes, cucumber, celery, mushrooms, capsicum, onions, cauliflower, zucchini, broccoli, spinach, peas, cabbage, lettuce, green beans, eggplant, carrot, leek, squash, pumpkin and Asian greens.

What to drink

It's important to stay hydrated throughout the day. Water is the best drink, but alternatives include:

- plain mineral or soda water flavoured with sliced lemon or lime, frozen berries, cucumber or fresh mint
- black, oolong, green or herbal tea
- coffee or decaffeinated coffee with skim, low-fat milk or unsweetened plant milk.

An occasional diet cordial or diet soft drink may add variety without extra sugar or kilojoules.

If you drink alcohol, limit your intake

If you drink alcohol, current guidelines recommend limiting your intake to two standard drinks per day. It's also a good idea to include some alcohol-free days each week.

A standard drink contains 10g of alcohol. It's important to know what a standard drink is for different types of alcohol, so you can monitor your intake.

One standard drink is equal to:

- 285ml of regular beer
- 375ml of mid-strength beer
- 425ml of low-alcohol beer (less than 3% alcohol)
- 60ml of fortified wine
- 100ml of wine
- 30ml of spirits.

If you are taking insulin or certain diabetes tablets, you are at risk of alcohol-related hypoglycaemia (hypo). A hypo is when blood glucose levels drop below 4mmol/L. Hypos can occur while drinking alcohol – or many hours afterwards – and can be dangerous. To reduce your risk of hypos, drink alcohol with a meal or snack that contains carbohydrate and check your blood glucose levels regularly.

Healthy snacks

Some people with diabetes may need to include a carbohydrate-based snack between meals. This will depend on your body weight, physical activity levels and the type of medication or insulin you take to manage your diabetes.

A dietitian can work with you to find out whether you need to include snacks and the best choices to make, but some suggestions include:

- a small glass of low-fat milk
- a small tub of low-fat natural or unsweetened yoghurt
- a serve of fresh fruit
- 2-3 wholegrain crisp bread spread with ricotta cheese, natural peanut butter or avocado.

Standard drinks

Sample one-day meal plan

The following meal plan is one example of how to spread carbohydrate foods evenly over the day and how to include a wide variety of nutritious foods. The foods that contain carbohydrate are highlighted in bold.

The amounts shown here are the suggested amounts for one person – they are a guide only and you may need to adjust them according to your own nutritional needs. Talk to a dietitian for advice on how to cater for your individual needs and food preferences.

More information

An accredited practising dietitian (APD) can help with the best food choices. Contact the Dietitians Association of Australia on **1800 812 942** or visit **daa.asn.au**

For information about standard drinks, visit **alcohol.gov.au**

For more information on glycemic index visit **glycemicindex.com** or **gisymbol.com**

Breakfast

- ¾ cup of cooked **rolled oats** with **milk**, topped with fresh berries OR
- 2 thin slices of **wholegrain toast**, thinly spread with peanut butter, avocado or ricotta, and tomato or boiled or poached eggs OR
- 1 cup fresh **fruit** salad topped with 100g low fat **natural yoghurt**
- tea, coffee or water

Lunch

- 2 thin slices of **wholegrain bread** or **1 grainy bread roll** with thinly spread avocado or **hummus**
- salad vegetables
- a small serve of lean meat, skinless poultry, tinned fish, eggs, marinated tofu or fat-reduced cheese
- water or sparkling mineral water

Dinner

- palm-sized serve (100 g) of lean meat, skinless poultry, fish, seafood, 2 eggs, 170g firm tofu or 1 cup legumes
- 1½ cups of cooked vegetables OR 2 cups of salad
- 1 cup of **cooked pasta** OR 2/3 cup of **low-GI rice** OR 1 cup of **sweet potato** or corn OR 1 cup of **chickpeas** or **kidney beans**
- water or sparkling mineral water.

Snacks:

- 1 piece of **fresh fruit** OR
- 1 tub of low-fat **natural yoghurt** OR
- 1 cup of low-fat **milk** OR
- 1 slice of **wholegrain bread** OR
- 2 table spoons **hummus** with **carrot** and **celery**
- 30g of unsalted nuts.

The NDSS and you

A wide range of services and support is available through the NDSS to help you manage your diabetes. This includes information on diabetes management through the NDSS Helpline and website. The products, services and education programs available can help you stay on top of your diabetes.

Hints for healthy cooking

Healthy eating for people with diabetes is no different from what is recommended for everyone.

There is no need to prepare separate meals or buy special foods. By choosing ingredients and recipes that are low in saturated fat and salt, high in fibre and contain less added sugar, you can make healthy and nutritious meals suitable for everyone.

Choosing healthy ingredients

When preparing meals or following recipes at home, try using some of these healthier swaps.

Fats and oils

Instead of:	Choose:
Butter	Polyunsaturated or monounsaturated fats such as olive, canola or sunflower oils
Cream	Low-fat plain yoghurt, reduced fat evaporated milk, buttermilk, reduced fat ricotta, low-fat milk or cashew
Sour cream	Light cream, sour cream or low-fat plain yoghurt
Cream-based dressings	Olive oil mixed with balsamic vinegar or lemon juice
Coconut milk and cream	Reduced fat coconut milk, coconut flavoured light evaporated milk or coconut essence mixed with low-fat milk thickened with a small amount of cornflour

Dairy foods

Instead of:	Choose:
Full-fat milk	Low-fat or skim milk, calcium-fortified soy milk
Cream cheese	Reduced fat ricotta, low-fat cottage cheese or extra light cream cheeses
Hard cheese	Reduced fat cheese or small amounts of a stronger flavoured cheese (such as parmesan) or a nut based cheese
Yoghurt	Low-fat natural or diet yoghurts

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Meat, chicken and fish

Instead of:	Choose:
Fatty meat	Lean cuts of meat with visible fat removed, lean mince
Poultry with skin	Skinless chicken or turkey (breast or thigh)
Sausages	Lean meat rissoles or meatballs
Deli meats	Shredded BBQ chicken, lean roast meats, turkey or chicken breast
Fried or crumbed fish	Fresh or canned fish

Breads, cereals, legumes and nuts

Instead of:	Choose:
White bread	Dense grainy or seeded bread, wholemeal sourdough or rye bread
Calrose or jasmine rice	Low glycemic index (GI) white or brown rice, basmati rice, quinoa, barley, freekeh, burghul or pearl couscous
Legumes canned in brine	Dry or no-added-salt canned legumes (such as kidney beans, chickpeas, four-bean mix, lentils)
Salted nuts	Unsalted nuts
White flour for baking	Wholemeal flour, nut flour, legume flour, or a mixture of wholemeal and white flour
Shortcrust or puff pastry	Filo pastry (brushed with egg white or milk instead of oil), reduced fat puff pastry or a base made with wholegrain bread, crushed nuts, or low GI rice

Healthy cooking methods

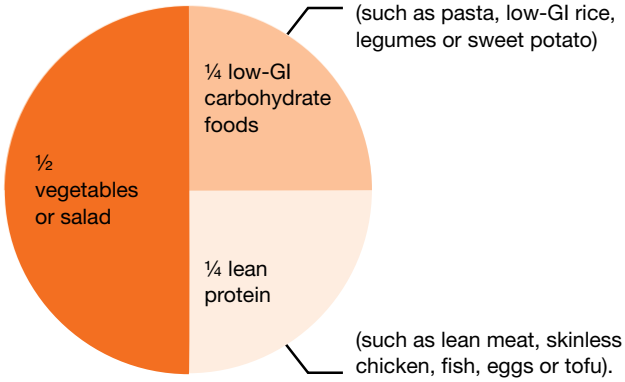
Try the following healthy cooking methods:

- Use low-fat cooking methods, such as steaming, stir-frying, poaching, grilling, barbequing or microwaving.
- When baking, use a non-stick pan or try using a dish lined with baking paper.
- Use cooking spray oil or small amounts of olive, canola or sunflower oil.
- Cook casseroles in advance, then skim the fat off with a spoon when they have cooled.
- Roast large cuts of meat on a rack over a baking tray to drain excess fat.
- Cook vegetables, chicken or fish in a steamer.
- Try baking fish in the oven or on the barbeque wrapped in foil. Add lemon juice and herbs like parsley for flavour and to keep the fish moist.
- Replace some of the meat in casseroles, stews, curries and mince dishes with legumes such as lentils, chickpeas or kidney beans.
- When making roast vegetables or homemade chips, try partially cooking in the microwave, then brush or spray with oil and bake until crisp. Leave the skin on where possible.
- Instead of using salt to flavour foods, try using herbs and spices such as parsley, basil, oregano and rosemary, pepper, garlic, chilli, curry, along with vinegar, lemon or lime juice.
- Use less sugar in cakes and muffins by adding mashed, chopped or pureed fruit instead.

Don't forget you can always create healthier alternatives of your favourite take away foods such as pizza or burgers, by choosing nutritious ingredients and healthier cooking methods.

Choosing the right serving size

Serving sizes are important to help manage your diabetes and maintain a healthy weight. As a guide for main meals, aim to balance your plate like this:



The below is a general guide for lunch and dinner.

- Fill a ¼ of your plate with lean meat, skinless chicken, fish/seafood, tofu, legumes or eggs
- Fill a ¼ of your plate with a carbohydrate food that has a lower glycemic index (GI) such as pasta, low-GI rice, quinoa, barley, soba, mung bean or rice noodles, legumes, corn on the cob, low-GI potato/sweet potato
- Fill ½ of your plate with salad or non-starchy vegetables and add these to every meal
- Use small amounts of healthy fats and oils when preparing meals.

Talk to a dietitian about serving sizes that are right for you.

Tips for healthy cooking

Tips to reduce sugar

- You can use small amounts of sugar in healthy recipes.
- If a recipe contains a large amount of sugar, try reducing the amount, modifying the ingredients, or using an alternative sweetener as a substitute.
- Swapping sugar for a sweetener affects the taste and texture of cooking so, for the best results, refer to the packaging and choose one that suits your needs.

For information about artificial sweeteners read the artificial sweeteners fact sheet.

Tips to reduce salt

- Check the sodium content per 100g listed on the nutrition information panel.
- Choose products with the lowest sodium or, where possible, with less than 120mg per 100g.
- When shopping, look for products that are ‘salt reduced’ or have ‘no added salt’.
- Avoid putting salt on the table.
- For extra flavour, add herbs, lemon juice, onions, ginger, garlic, chilli, vinegar, wine or salt-reduced stock.

The NDSS and you

A wide range of services and support is available through the NDSS to help you manage your diabetes. This includes information on diabetes management through the NDSS Helpline and website. The products, services and education programs available can help you stay on top of your diabetes.

The glycemic index

Choosing the right amount and type of carbohydrate foods helps manage your blood glucose levels. The glycemic index is one tool that helps you choose which carbohydrate foods to eat.

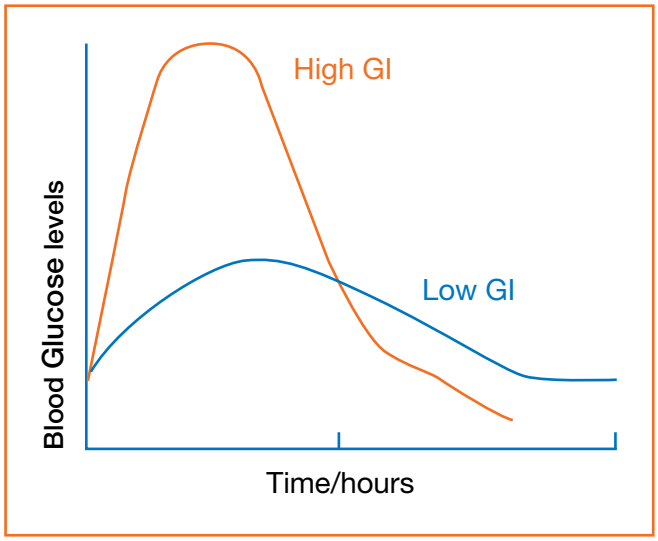
Carbohydrate foods are the main source of energy for your body. Foods high in carbohydrate include bread, pasta, rice, grains, cereals, fruits, starchy vegetables, legumes, milk and yoghurt. Your body breaks down carbohydrate from these foods into glucose, which then enters your bloodstream.

What is the glycemic index?

The glycemic index (GI) ranks how quickly or slowly carbohydrate foods affect blood glucose levels.

High-GI carbohydrate foods break down into glucose quickly, which means a higher and faster rise in blood glucose levels after eating.

Low-GI carbohydrate foods break down into glucose over a longer period of time. Compared with high-GI foods, they result in a smaller and slower rise in blood glucose levels after eating.



Acknowledgement **glycemicindex.com**

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What are the benefits of a low-GI eating plan?

Research has shown that people with diabetes can improve their blood glucose levels after meals and lower average blood glucose levels (HbA1c) by including lower GI carbohydrate foods as part of a healthy eating plan.

Low-GI diets have also been shown to:

- help with weight management
- improve blood cholesterol levels.

These factors are also important for managing diabetes and reducing the risk of long-term diabetes-related complications.

Are all low-GI foods healthy?

Some foods with a low GI, such as potato chips, chocolate and ice cream, are not healthy everyday food choices.

When choosing low-GI foods, it is essential to also consider the overall nutritional value of the food, including the number of kilojoules, saturated fat, salt (sodium) and fibre.

It's important to remember that the GI is just one tool to help you manage your diabetes. You also need to consider the total amount of carbohydrate in the foods you eat throughout the day.

Examples of lower GI foods

Breads	Low-GI varieties include dense grainy/seeded breads, pumpernickel, authentic sourdough and white corn tortillas. Look for breads with the GI symbol.
Breakfast cereals	Low-GI varieties include traditional rolled oats or steel-cut oats, wheat, rice or oat bran and natural muesli. Look for cereals with the GI symbol.
Grains	Grains include pasta (most types), fresh rice noodles, soba noodles, mung bean (bean thread noodles), Basmati rice, Doongara™ rice, quinoa, barley, bulgur (cracked wheat), buckwheat, pearl (Israeli) couscous and freekeh.
Legumes	Other than broad beans, all dried and canned legumes have a low GI. Examples include baked beans, kidney beans, soy beans, mixed beans, cannellini beans, haricot beans, butter beans, brown/green/red lentils, split peas, black eyed peas and chickpeas.
Starchy vegetables	Relatively low-GI vegetables include taro, parsnips, sweet corn and orange sweet potatoes.
Dairy foods	Milk, soy milk, yoghurt and custard naturally have a low GI. Look for low-fat, unsweetened varieties.
Biscuits and crackers	Lower GI varieties include grainy/seeded crackers and biscuits with oats and dried fruit. Look for varieties with the GI symbol.
Fruit	Most fruits have a low GI, including apples, bananas, pears, oranges, peaches apricots, plums, mangoes, nectarines, grapes, kiwifruit and prunes.

Tips for eating low GI

- Try to include a nutritious low-GI food at each meal.
- Replace high-GI carbohydrate foods for lower GI options (so long as they're still a nutritious option). A dietitian can help you with this.
- Replace some of the high-GI foods in a meal with a low-GI option to lower the overall GI of the meal.
- Look for products with the GI symbol logo. This indicates that the food has been tested at an accredited laboratory and meets strict nutrient criteria that are in line with the Dietary Guidelines for Australians. However, not all foods with a low GI will have the GI symbol logo.

More information

For more information about the glycemic index, visit **glycemicindex.com** and **gisymbol.com**.

To find an accredited practising dietitian, contact the Dietitians Association of Australia on **1800 812 942** or visit **daa.asn.au**.

The glycemic index is one tool to help you choose which carbohydrate foods to eat.

The NDSS and you

A wide range of services and support is available through the NDSS to help you manage your diabetes. This includes information on diabetes management through the NDSS Helpline and website. The products, services and education programs available can help you stay on top of your diabetes.

Understanding food labels

Labels on packaged foods provide information that can help you make healthier food choices.

Understanding how to read food labels can help you choose foods with less saturated fat, salt (sodium) and kilojoules, and with more fibre. They can also provide information on the amount of carbohydrate in the food you eat, to help manage your blood glucose levels.

Information on food labels must meet Australian food labelling laws. Labels must:

- be written in English
- be clearly presented
- show the 'use by' or 'best before' date
- include an ingredients list
- include a nutrition information panel
- clearly identify food allergens and additives.

Nutrition information on food labels

When shopping for healthier foods, the two most useful tools on a food package are the nutrition information panel and the ingredients list.

Nutrition information panel

You will find a nutrition information panel on most packaged foods, as it is compulsory for manufacturers to include. This panel provides useful information to help you compare similar products and choose healthier options for you.

Here is an example of a nutrition information panel.

Nutrition information

Servings per package: 10
Serving size: 35g (Approx 3 biscuits)

		Quantity per serving	Quantity per 100g
Energy		522KJ	1490KJ
Protein		1.8g	5.1g
Fat	– Total	1.0g	2.9g
	– Saturated	0.2g	0.7g
Carbohydrate	– Total	26.5g	75.6g
	– Sugars	16.3g	46.5g
Sodium		53mg	150mg

When you read the nutrition information panel, check the serving size, the quantity per 100g column, the amount of energy (kilojoules), and the amount of fat, carbohydrate and sodium in the product. These components are explained here.

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diabetes australia
The NDSS is administered by Diabetes Australia

Serving size

This is the average serving size of the product, according to the manufacturer, which can help you work out the nutrition information for the serve you eat. Check whether your serving size is the same as the recommended serving size. If your serve is smaller or larger, you will need to take this into account. A dietitian can help you with this.

Energy

Energy is measured in kilojoules (kJ) or calories (cal). The amount of energy each of us needs depends on many factors and will vary from person to person. When comparing similar products, choosing those with fewer kilojoules can help with weight loss.

Fat

'Total fat' includes all polyunsaturated, monounsaturated, saturated and trans fats in the food. It's important to consider both the amount and the type of fat.

Check the 'saturated fat' amount on similar products and choose the one with the least amount of saturated fat per 100g.

'Trans fats' are not required by law to be listed on the nutrition information panel but some manufacturers will list trans fats. Look for products with less than 1g of trans fats per 100 grams, particularly when buying margarines or baked goods.

Carbohydrate

'Total carbohydrate' includes both the sugars and the starches in food. This figure is useful if you count carbohydrates to help manage your blood glucose levels. To work out the amount of carbohydrate in food use the per serve column or the per 100g column. You may need to adjust this to suit your serving size.

The 'sugars' amount tells you how much of the total carbohydrate is made up of sugars. It includes, both added sugars and natural sugars such as lactose in milk and fructose in fruit.

Remember, the total carbohydrate affects blood glucose levels, not just sugar.

A dietitian can help you work out how much carbohydrate you need each day.

Sodium

This figure tells you how much salt (sodium) is in the food. Where possible, choose products with 'reduced' or 'no added' salt. A low-salt food has less than 120mg of sodium per 100g. When comparing similiar products, choose the one with the lowest sodium per 100g.

Percentage (%) daily intake

Some manufacturers may choose to include information about percentage (%) daily intake. This can be used to compare the nutrients in one serve of the food with what an 'average adult' needs. This is just a guide, as your daily intake may be higher or lower depending on your energy needs.

Tips on making healthy food choices

To decide whether a food is a healthy choice, compare products and ask yourself these questions:

Is the food an 'everyday' or a 'sometimes' food?

- Fill your shopping trolley with a variety of 'everyday' healthy foods, such as fruit, vegetables, wholegrains, legumes, lean meats and poultry, fish or seafood, nuts, seeds and low-fat dairy. Reduce the amount of 'sometimes' foods like chocolate, crisps, sweet biscuits and soft drinks.

Is the food lower in saturated fat?

- Compare similar products and choose those with the least amount of saturated fat per 100g.

Is the food lower in sodium?

- Healthier options have less than 120mg of sodium per 100g. Where possible, choose products that have 'reduced salt' or 'no added salt'.

Is the food high in fibre?

- Not all labels show the fibre content, but high fibre foods have at least more than 3g of dietary fibre per 100g. When comparing similar products, choose the one higher in fibre per 100g. This is particularly important for foods like breads and cereals. It is recommended that adults aim for at least 25–30g of fibre each day.

Ingredients list

All packaged foods must have an ingredients list on their labels. All ingredients are listed in descending order by weight (that is, the ingredient that weighs the most is listed first, and the ingredient that weighs the least is listed last).

You can use this information to help you decide whether the product is a healthy choice. For example, you can look at the ingredients list to find out whether the sugar in the product is from an added or a natural sugar.

Nutrition claims

Food manufacturers often use nutrition claims on their packaging to attract the shopper's attention. While the claim may be true, it may also be misleading – so it's useful to know the meaning of nutrition claims. Always check the nutrition information panel to see if the product is a healthy option.

Here are some common claims and what they mean.

High fibre

The food must contain at least 3g of fibre per average serving.

Reduced salt

The product contains at least 25% less salt than the regular product. However, the reduced salt version may still have a high salt content, so always check the nutrition information panel and compare similar products.

No added salt

Salt has not been added.

Low salt

The food has less than 120mg of sodium per 100g.

Low joule or diet

The product is usually artificially sweetened and/or low fat. You can check this in the ingredient list or nutrition panel.

No added sugar

The product contains no added sugars (such as sucrose, honey or glucose). However, the product may still contain natural sugars, such as milk (lactose), fruit (fructose) or other carbohydrates, which can affect your blood glucose levels.

Low fat or 97% fat free

The food must contain no more than 3g of fat per 100g of food, or no more than 1.5g fat per 100ml of liquid.

Reduced fat

The product contains at least 25% less fat than the regular product. However, this doesn't necessarily mean it's low in fat.

Lite or light

This may refer to a reduced fat content, but it may also be used to describe taste, texture or colour. For example, light olive oil is lighter in colour and taste but not lower in fat. Check for an explanation on the label and compare fat content per 100g with similar products.

Nutrition claims on food products

If a product includes a nutrition claim about a specific nutrient on the package, it must list the amount in the nutrition information panel. For example, if it makes a claim about dietary fibre, the amount of fibre must be listed in the panel.

Nutrition symbols

Food manufacturers can choose to display nutrition symbols such as the GI symbol and the Health Star Rating system.

These symbols show that the product has been tested and meets specific criteria, but it is still a good idea to check the nutrition information panel to make sure the product meets your needs.

More information

For more information about understanding food labels, visit: **foodstandards.gov.au**

The Healthy shopping guide – your essential supermarket companion can help you make healthy food choices.

To purchase a copy, call **1800 637 700**.

The NDSS and you

A wide range of services and support is available through the NDSS to help you manage your diabetes. This includes information on diabetes management through the NDSS Helpline and website. The products, services and education programs available can help you stay on top of your diabetes.

National Diabetes Services Scheme
An Australian Government Initiative

NDSS Helpline 1800 637 700
ndss.com.au

Understanding gestational diabetes

Gestational diabetes is a form of diabetes that occurs during pregnancy. About 15% of pregnant women will develop gestational diabetes, usually around the 24th to 28th week of pregnancy.

In most cases, blood glucose levels return to target ranges after the baby is born and the woman no longer has diabetes. However, some women will continue to have high blood glucose levels after delivery, leading to a diagnosis of type 2 diabetes.

Diabetes is a condition where there is too much glucose (sugar) in the bloodstream.

Glucose is an important source of energy for your body. It comes from carbohydrate foods that you eat, such as bread, pasta, rice, cereals, fruits, starchy vegetables, milk and yoghurt. Your body breaks down carbohydrates into glucose, which then enters your bloodstream.

Insulin is needed to allow glucose from the bloodstream to enter the body cells and be used for energy. Insulin is made in the body by your pancreas.

During pregnancy, some of the hormones produced by the placenta reduce the action of insulin. The pancreas then needs to produce extra insulin to keep blood glucose levels in the target range. If the pancreas is unable to produce enough insulin, blood glucose levels rise and gestational diabetes develops.

Managing gestational diabetes can help keep blood glucose levels in the target range for a healthy pregnancy.

Find this resource at
ndss.com.au

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diabetes australia
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Who is at risk of gestational diabetes?

Women with an increased risk of gestational diabetes include those who:

- are aged 40 years or over
- have a family history of type 2 diabetes or a first-degree relative (mother or sister) who has had gestational diabetes
- are above the healthy weight range
- have had elevated blood glucose levels in the past
- come from Aboriginal or Torres Strait Islander backgrounds
- are from a Melanesian, Polynesian, Chinese, Southeast Asian, Middle Eastern or Indian background
- have had gestational diabetes in a previous pregnancy
- have polycystic ovary syndrome
- have previously had a large baby (weighing more than 4.5kg)
- are taking some types of antipsychotic or steroid medications
- have gained weight too rapidly in the first half of pregnancy.

How is gestational diabetes diagnosed?

- All pregnant women should be screened for gestational diabetes at 24 to 28 weeks (except those women who have had type 1 or type 2 diabetes diagnosed before pregnancy).
- Women who have risk factors for gestational diabetes may be screened earlier in their pregnancy.
- Gestational diabetes is diagnosed using an oral glucose tolerance test (OGTT). This is done at a pathology lab. You will need to fast overnight before having this test.
- Blood will be taken to check your fasting blood glucose level. After this, you will be given a sugary drink and have your blood tested one and two hours later. You will be asked to sit and wait between tests.
- If your blood glucose level is above the normal range at your fasting, one or two-hour test, you have gestational diabetes.

When you are diagnosed with gestational diabetes there are health professionals who can help you.

Why is it important to manage gestational diabetes?

If blood glucose levels are high during pregnancy, glucose passes across the placenta to the baby, who then makes extra insulin. This can make the baby grow too big, which can cause problems during labour, and increase the risk of early delivery or the need for a Caesarean section.

After the birth, the baby may have a greater risk of low blood glucose levels (hypoglycaemia or hypo). This is because the baby is no longer receiving extra glucose from their mother, but they continue to make extra insulin, causing their blood glucose levels to drop.

Women with gestational diabetes also have an increased risk of developing high blood pressure during pregnancy.

How is gestational diabetes managed?

When you are diagnosed with gestational diabetes there are health professionals who can help you. This includes specialist doctors, diabetes educators and dietitians. They can work with you to help keep your blood glucose levels within the target range. This will provide the best outcome for both you and your baby.

You can manage gestational diabetes by following a healthy eating plan, doing regular physical activity, and monitoring blood glucose levels. This will help keep blood glucose levels within the target range for a healthy pregnancy. It will also help you to manage your pregnancy weight gain. Some women will also need medication called metformin or insulin injections to help manage gestational diabetes.

Healthy eating

Healthy eating is important to help you keep blood glucose levels within the target range, and to provide all your nutritional needs for pregnancy and a healthy pregnancy weight gain.

Eating well for gestational diabetes includes choosing the right type and amount of carbohydrate foods, limiting foods high in saturated fat, and eating a variety of nutritious foods.

Choose the right type and amount of carbohydrate foods

Carbohydrate foods are an important source of energy for your body, especially during pregnancy. These foods include breads and cereals, grains, starchy vegetables (such as potato, corn and sweet potato), fruit, legumes, yoghurt and milk. To manage your blood glucose levels, you need to eat the right type and amount of carbohydrate foods.

Eat some carbohydrate food at each meal and snack. The best choices are those that are high in fibre and have a lower glycaemic index (GI). Low-GI carbohydrates include dense grainy/seeded breads, rolled oats, natural muesli, pasta, low-GI white or brown rice, milk, yoghurt, legumes and most fruit.

Spread carbohydrate foods over three small meals and two or three snacks. This can help keep blood glucose levels in the target range and maintain your energy levels. Large amounts of carbohydrate foods at any one meal or snack can cause blood glucose levels to rise too high.

Your dietitian can advise you on the amounts of carbohydrates that are right for you.

Avoid food and drinks that are high in added sugars and have little nutritional value. These include, soft drinks, cordial, cakes, biscuits, chocolates and lollies.

Limit foods high in saturated fat

Eat less saturated fat by choosing lean meats, skinless chicken and low-fat dairy foods, and by avoiding takeaway and processed foods.

Have small amounts of healthy fats, such as olive oil or canola oil, unsalted nuts, seeds and avocado.

Eat a variety of nutritious foods

During pregnancy, your body needs extra nutrients, including iron and folate, to help your baby develop. Eating a wide variety of nutritious foods – including vegetables, fruits, lean meats, low-fat dairy foods and wholegrain breads and cereals – can help you to meet these extra nutritional needs.

Food safety is also important during pregnancy, so avoid high-risk foods such as processed meats, uncooked meat, cold seafood, raw eggs, soft cheeses and pre-prepared vegetables and salads.

A dietitian can advise you on how to meet your nutritional needs during pregnancy, and on food safety and healthy eating for gestational diabetes.

Physical activity

Physical activity can help you manage your blood glucose levels and pregnancy weight gain, as well as keep you fit to prepare for the birth of your baby.

It also has other benefits, such as managing pregnancy symptoms like heartburn, constipation and lower back pain.

Talk to your doctor before starting or continuing any form of physical activity while you are pregnant.

When you have gestational diabetes, it's important to try and be active every day. Activities could include swimming, brisk walking, pregnancy yoga or pilates, and aqua fitness classes.

Talk to your diabetes educator about the effects of exercise on your blood glucose levels, especially if you are taking insulin.

Monitoring blood glucose levels

Blood glucose monitoring is an essential part of managing gestational diabetes. A diabetes educator can show you how to check your blood glucose levels using a blood glucose meter and advise you on target levels for pregnancy.

The most common times to check blood glucose levels are when you wake up in the morning (fasting) and one or two hours after each main meal. You may also be advised to check your blood glucose levels at other times.

Regular blood glucose monitoring can be helpful for understanding the effects of food and physical activity on blood glucose levels. Keep a record of your blood glucose readings so that your diabetes health professionals can help you look for any patterns in your blood glucose levels. They can also advise you on what to do if your blood glucose levels are outside the target range.

Blood glucose monitoring is an essential part of managing gestational diabetes.

Medications

If your blood glucose levels are above the target range, you may need medication to help manage gestational diabetes. Most diabetes tablets are not suitable for use during pregnancy, but a medication called metformin may be used.

Some women will need insulin injections to help keep blood glucose levels in the target range. This will not harm your baby. If you need insulin, your diabetes educator will teach you how to give an injection. Your insulin doses will also need to be reviewed regularly.

Pregnancy weight gain

As your baby grows, it's normal to gain weight during your pregnancy. How much weight you should gain depends on your weight before you were pregnant. Discuss your individual pregnancy weight gain targets with your health professional.

Who can help with your gestational diabetes?

Managing gestational diabetes is a team effort, involving you, your family, and health professionals. There are many different health professionals who can help you, including:

- your general practitioner
- an endocrinologist (diabetes specialist)
- an obstetrician
- a credentialled diabetes educator or diabetes nurse practitioner
- an accredited practising dietitian
- an accredited exercise physiologist or physiotherapist
- a midwife.

After your baby is born

You will be advised to have an oral glucose tolerance test (OGTT) 6–12 weeks after your baby is born (or as soon as possible after this time). This is to check that your blood glucose levels have returned to within the target range.

Depending on your risk factors, you will also need to be screened for type 2 diabetes again every one to three years. Ask your doctor for more information.

Gestational diabetes can occur again in future pregnancies, and you have an increased risk of developing type 2 diabetes.

You can reduce your risk by:

- being in the healthy weight range
- making healthy food choices
- being physically active every day.

If you develop type 2 diabetes, early diagnosis and management is important for good health, especially if you are planning for a future pregnancy.

Babies born to women who have had gestational diabetes also have an increased risk of childhood obesity and type 2 diabetes later in life. It's important for the whole family to eat well and stay active to reduce this risk.

More information

If you are diagnosed with gestational diabetes and you register with the National Diabetes Services Scheme (NDSS), you will receive a booklet called Caring for yourself and your baby.

After your baby is born, the NDSS will send you another booklet, Life after gestational diabetes, as well as regular reminders for follow-up diabetes screening and healthy lifestyle information. For more information on how to register, visit **ndss.com.au** or speak to your health professional

Breastfeeding has many short- and long-term health benefits for you and your baby. Breastfeeding is recommended for all babies.

The NDSS and you

A wide range of services and support is available through the NDSS to help you manage your diabetes. This includes information on diabetes management through the NDSS Helpline and website. The products, services and education programs available can help you stay on top of your diabetes.