

Gestational diabetes

Gestational diabetes mellitus known as GDM is a form of diabetes that occurs in pregnancy. One in every eight pregnant women in Australia will develop GDM. GDM is usually diagnosed from 24-28 weeks with an oral glucose tolerance test but may occur earlier in your pregnancy.

For most women GDM will go away after the baby is born. However, GDM is an early warning sign that you may develop type 2 diabetes in the future.

Your diabetes team will support you during this time. The team usually includes your Obstetrician, Diabetes Nurse Educator, Dietitian and Endocrinologist.



Risk factors for GDM

You are more likely to have GDM if you:

- ✓ Are over 40 years old
- ✓ Have direct family members with type 2 diabetes
- ✓ Have an Aboriginal or Torres Strait Islander, Chinese, Indian, Middle Eastern, Polynesian or Melanesian background
- ✓ Have had GDM in another pregnancy
- ✓ Have had a baby weighing more than 4.5kg
- ✓ Gained too much weight early in your pregnancy or were above your healthy weight before pregnancy
- ✓ Have Polycystic Ovary Syndrome (PCOS)
- ✓ Take steroid or anti-psychotic medications

Why is it important to manage GDM?

Managing GDM can reduce risks to you and your baby.

The risks can include:



- Caesarian delivery
- Pre-term delivery
- High blood pressure known as pre-eclampsia



- Large birth weight
- Breathing difficulties after delivery
- Low blood glucose levels after delivery



Checking your blood glucose levels

Blood glucose monitoring is an important part of managing GDM. A Diabetes Nurse Educator will teach you how to use a blood glucose meter called a glucometer. They will advise you of the target levels during pregnancy.

If you have a Medicare card you will also be registered for the National Diabetes Service Scheme, known as NDSS. This will allow you to purchase the glucometer testing strips at a reduced price.



Until your baby is born you will need to check your blood glucose levels **four times each day**. Your diabetes team will review these levels at least weekly.

The best times to check your blood glucose levels are:

✓ **Fasting before eating breakfast**

✓ **Two hours after you start eating your breakfast**

✓ **Two hours after you start eating your lunch**

✓ **Two hours after you start eating your dinner**

Target blood glucose levels to aim for:

4.0–5.0mmol/L fasting or before breakfast

4.0–6.7mmol/L 2 hours after meals

What happens if my blood glucose levels are too high?

If your blood glucose levels are above target it is important to contact your Diabetes Nurse Educator or Doctor.

Reasons your blood glucose levels may be high:

- Checking your level too soon after eating. It is important to wait 2 hours from the start of your meal
- Eating more carbohydrate in a meal than usual or eating a carbohydrate snack before checking your blood glucose level
- Not washing your hands before checking your level
- Being more stressed than usual
- Being unwell with a cold or infection

If a reason cannot be found and your blood glucose levels are higher than your targets on 2 or more occasions at the same time of the day, you will likely be referred to an Endocrinologist. Medication may then be started to help lower your blood glucose levels.

Starting insulin

If you need to commence insulin, your Diabetes Nurse Educator will teach you:

- | | | | |
|-------------------------|--|----------------------------|---|
| ✓ How the insulin works | ✓ About your prescribed type of injection device and technique | ✓ About your insulin doses | ✓ When and where to inject insulin and how to manage low blood glucose levels known as hypoglycaemia. |
|-------------------------|--|----------------------------|---|



Nutrition management

A Dietitian can help you learn how food choices can help achieve your target blood glucose levels, and maintain the health of you and your baby. A food diary will be recommended by the Dietitian for review.

You will learn about:

- Choosing the right type and amount of carbohydrate food and drinks to help manage your blood glucose levels
- Eating food that is healthy for you and baby
- Timing of your meals and snacks.

What are carbohydrates?

- Carbohydrates are found in a variety of food and drink, and provides the body with energy
- Carbohydrates break down into glucose during digestion and increase blood glucose levels
- Many foods containing carbohydrate also provide dietary fibre, vitamins and minerals
- The amount and type of carbohydrate you eat will affect your blood glucose levels.

Not eating enough carbohydrate can affect your baby's brain and nerve development. Include some carbohydrate at most meals and snacks each day.

Gestational diabetes

Which foods contain carbohydrates?

Healthy carbohydrate choices:

- Wholegrain bread, Crispbread
- Wholegrain breakfast cereal
- Grains such as Barley, Quinoa
- Pasta, Noodles
- Rice
- Wholegrain flour, Wholemeal flour
- Lentils, Legumes
- Starchy vegetables including Potato, Sweet Potato and Corn
- Fruit
- Milk, Yoghurt



Less healthy carbohydrate choices:

- Biscuits
- Cakes, Pastry
- Sugar, Agave syrup, Rice malt syrup, Coconut sugar
- Jam, Honey, Maple syrup
- Chocolate, Confectionary
- Regular soft drink, Cordial
- Fruit juice
- Potato crisps, Corn chips
- Icecream, Custard



Foods that contain little or no carbohydrate:





- Meat, Chicken, Fish, Tofu, Eggs, Cheese
- Oil, Avocado, Nuts
- Sugar free drinks, Artificial sweeteners
- Non-starch vegetables including: Lettuce, Tomato, Broccoli, Cauliflower, Zucchini, Eggplant, Bok choy, Okra, Carrots



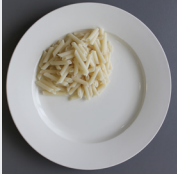


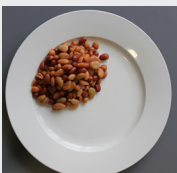


Gestational diabetes

Lower and higher glycaemic index choices

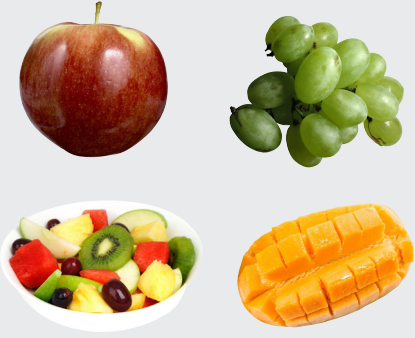


The following food amounts are guides for main meals and may be individualised by your Dietitian. Speak to your Dietitian about what is right for you.

Food	Lower GI	Higher GI
<p>Breakfast cereal</p>  <p>½ cup muesli or oats</p>  <p>1 cup flake type cereal or 2 cereal biscuits</p>	<ul style="list-style-type: none"> • untoasted muesli • Rolled oats (Porridge) • Wholegrain or Multigrain high fibre cereals • Uncle Toby's Oatbribs or Multigrain Weetbix 	<ul style="list-style-type: none"> • Instant oats (Porridge) • Sultana Bran • Just Right • Cornflakes • Rice Bubbles • Puffed wheat
<p>Bread</p>  <p>1–2 slices</p>  <p>1–2 wraps or 1 small roti / chapatti</p>	<ul style="list-style-type: none"> • Multigrain and seeds • Traditional sourdough • Pumpnickel • Baker's Delight Low GI white • Coles High Fibre Low GI <p>Flatbreads:</p> <ul style="list-style-type: none"> • Wholemeal pita • Mission Low GI wrap and White Corn tortilla • Roti / Naan / Chappati made with whole wheat atta or chickpea flour 	<ul style="list-style-type: none"> • White • Wholemeal • Dark or Light rye • Bagel • Turkish, Focaccia • White pita • Crumpets • English muffins • White or Wholemeal flour based Roti / Naan / Chapatti

Gestational diabetes

Food	Lower GI	Higher GI
<p>Pasta and Noodles</p>  <p>1 cup cooked or 50g dry</p>	<ul style="list-style-type: none"> • Wheat pasta • Vermicelli • Mung bean noodles • Soba noodles • Fresh rice noodles • Udon • Hokkien • Buckwheat noodles 	<ul style="list-style-type: none"> • Corn pasta, Rice pasta • Potato gnocchi • Noodles • Instant noodles • Canned spaghetti
<p>Rice</p>  <p>1 cup cooked or 50g dry</p>	<ul style="list-style-type: none"> • White or Brown long grain such as Basmati, Mahatma, Doongara • Wild • Moolgiri • Black, Red • Chia and quinoa rice blends • Sushi made from traditional Japanese rice 	<ul style="list-style-type: none"> • Jasmine • White or brown medium grain • Arborio (risotto) • White rice congee
<p>Grains</p>  <p>1 cup cooked</p>	<ul style="list-style-type: none"> • Quinoa, Barley • Bulghur (cracked wheat) • Pearl or Israeli cous cous • Buckwheat, Freekeh • Semolina • Teff 	<ul style="list-style-type: none"> • Polenta • Cous cous
<p>Lentils and Legumes</p>  <p>1 cup cooked or canned</p>	<ul style="list-style-type: none"> • All dried or canned including Kidney beans, Chickpeas, Brown lentils, Baked beans 	
<p>Starchy vegetables</p>  <p>200g potato</p>  <p>1 corn cob or ½ cup or 75g kernels</p>	<p>Potato:</p> <ul style="list-style-type: none"> • Sweet potato orange flesh • Yam • Nicola, Marfona potato <p>Note: Eat skin on potato to lower GI</p> <p>Corn:</p> <ul style="list-style-type: none"> • Corn cob • Corn kernels 	<ul style="list-style-type: none"> • Potato: all other white varieties such as Desiree, New, Pontiac, Sebago • Sweet potato purple skin, Kumara <p>Note: Most other salad and stir fry vegetables contain very little or no carbohydrate and do not have a GI value.</p> <p>Some semi-starch vegetables, for example pumpkin, peas, carrot, parsnip, broad beans and beetroot have a GI value, but rarely increase blood glucose unless eaten in large amounts more than 200g.</p>

Gestational diabetes

Food	Lower GI	Higher GI
<p>Fruit</p>  <p>1 serve of fruit is similar to a fist size or 1 cup chopped</p>	<ul style="list-style-type: none"> • Apple, Pear • Banana, lightly ripe • Nectarine, Peach • Apricot, Plum • Orange, Mandarin, Grapefruit • Berries • Kiwi fruit • Grapes • Pineapple • Paw paw, Mango • Figs <p>Note: Strawberries, raspberries, blackberries and passionfruit have less carbohydrate compared to other fruits and have less effect on blood glucose levels.</p>	<ul style="list-style-type: none"> • Cantaloupe • Watermelon • Lychee (canned in syrup) <p>Note: fresh fruit is the best option.</p> <p>Dried fruit: eat only small amounts occasionally.</p> <p>Canned fruit: choose lower GI fruit canned in natural juice and drain excess juice.</p> <p>Fruit juice: small amounts less than 150ml.</p>
<p>Milk and Yoghurt</p>  <p>1 cup milk and yoghurt</p>	<ul style="list-style-type: none"> • Milk, yoghurt • Soy milk, soy yoghurt – choose products that have added calcium <p>Note: You can choose reduced fat, reduced sugar varieties depending on your preference.</p>	<ul style="list-style-type: none"> • Rice milk • Oat milk • Sweetened condensed milk
<p>Crispbread</p>  <p>2-4 crispbread</p>	<ul style="list-style-type: none"> • Vita-Weat 9 Grain • Ryvita Multigrain 	<ul style="list-style-type: none"> • Rice and water crackers • Salada, Sao • Corn thins, Rice cakes • Kavli, Cruskits, Matza • Pretzels

Gestational diabetes

Balance your carbohydrate portion at meals with protein and low-carbohydrate vegetables or salad.

Carbohydrate
($\frac{1}{4}$ plate)

Portion:
Fist size

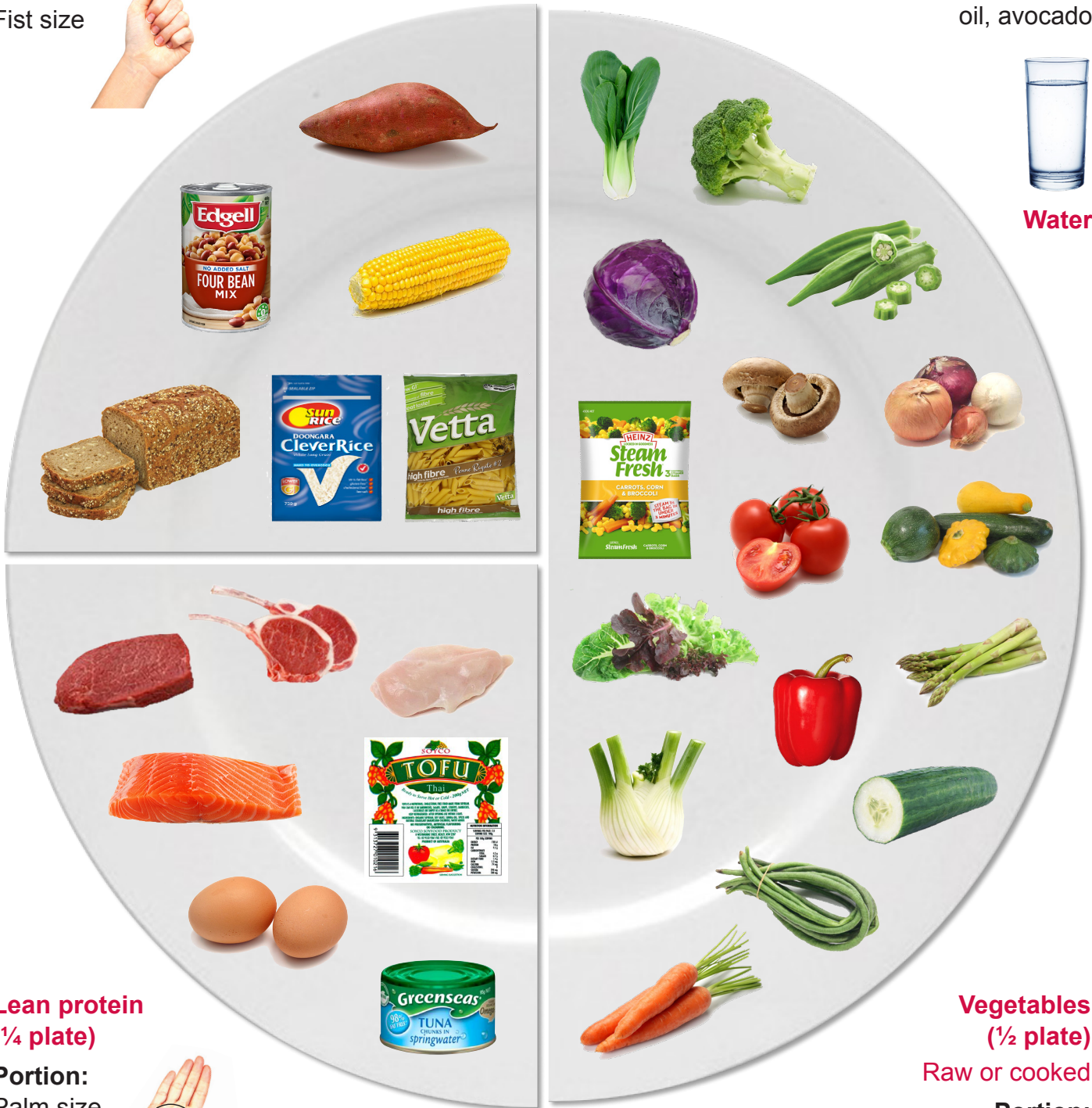


Healthy fat

Extra virgin olive oil, avocado



Water



Lean protein
($\frac{1}{4}$ plate)

Portion:
Palm size



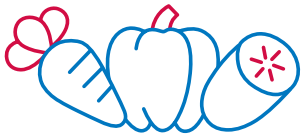
Vegetables
($\frac{1}{2}$ plate)

Raw or cooked

Portion:
2 open hands



Gestational diabetes



Snacks

Eating snacks allows you to spread your carbohydrate intake over the day to help manage blood glucose levels.

A healthy snack can be eaten 2 hours **after** a meal, after you have checked your blood glucose level. This allows your result to be accurate and your body time to digest the meal before digesting a snack.

Below are some healthy snack options.

Carbohydrate snacks

Choose one in between meals when you are hungry:



✓ 1 handful sized piece of fruit

OR

✓ 2 smaller pieces of fruit

✓ 1 small tub of reduced fat yoghurt

OR

✓ 1 cup of reduced fat milk or calcium fortified soy milk

✓ 4 Vita-weat crackers

OR

✓ 2 Ryvita (range is 12-14g CHO in 2 biscuits depending on flavour) with 1 tablespoon of avocado or peanut butter

✓ 1 small packet of roasted chickpeas such as Happy Snack Company Roasted Chickpeas or Fa-Va Beans

✓ 1 cup air popped popcorn such as Cobs Sea Salt Popcorn

Low carbohydrate snacks

These can be eaten as an extra snack if you are still hungry or combined with a carbohydrate snack:

✓ 1 small handful of nuts including almond, walnut, macadamia, brazil.

Note: peanut, cashew and pistachio nuts contain more carbohydrate

✓ ¼ cup of mixed seeds, including sunflower, pumpkin seeds

✓ 1 small can of tuna, salmon, sardines or chicken

✓ 1 hard-boiled egg

✓ Half a small avocado

✓ 1-2 slices of reduced fat cheese

✓ Washed vegetable sticks including celery, carrot, cucumber, capsicum

✓ Vegetable soup with low carbohydrate vegetables or Miso soup

✓ Sugar free hot chocolate such as Jarrah

Gestational diabetes

Meal planning

Breakfast	<ul style="list-style-type: none">• 2 slices grain toast, 2 teaspoons peanut butter or 1 tablespoon avocado• 1 cup reduced fat milk
Morning tea	<ul style="list-style-type: none">• 1 small banana
Lunch	<ul style="list-style-type: none">• Half 420g can of legumes such as 4 bean mix and half 420g can corn kernels• Small can tuna or 2 boiled eggs• Salad vegetables – rocket, cucumber, tomato etc.• 1 kiwi fruit or 1 apple
Afternoon tea	<ul style="list-style-type: none">• 4 VitaWeat crackers, 2 slices reduced fat cheese
Dinner	<ul style="list-style-type: none">• 1 cup cooked pasta with beef bolognese or spinach and nut pesto• Side salad or steamed green vegetables
Supper	<ul style="list-style-type: none">• 1 small tub reduced fat yoghurt
Breakfast	<ul style="list-style-type: none">• 1 cup Kellogg's Guardian cereal, reduced fat milk
Morning tea	<ul style="list-style-type: none">• 1 apple, 1 small handful of nuts
Lunch	<ul style="list-style-type: none">• Toasted Sandwich – 2 slices grain bread• 2 slices reduced fat cheese, salad vegetables – lettuce, capsicum, tomato etc.• 1 orange or 2 small mandarins
Afternoon tea	<ul style="list-style-type: none">• 1 small tub reduced fat yoghurt
Dinner	<ul style="list-style-type: none">• 200g sweet potato• Grilled skinless chicken or salmon• Vegetables – carrot, broccoli, cauliflower etc.
Supper	<ul style="list-style-type: none">• 1 muesli bar (e.g. Carman's Original Fruit Free)
Breakfast	<ul style="list-style-type: none">• ½ cup raw rolled oats with reduced fat milk and 1 small banana
Morning tea	<ul style="list-style-type: none">• 1 small tub reduced fat yoghurt
Lunch	<ul style="list-style-type: none">• 1 medium size wholemeal chapatti bread or 1 slice grain bread• Lentil dahl and vegetable curry without potato
Afternoon tea	<ul style="list-style-type: none">• ½ medium size mango
Dinner	<ul style="list-style-type: none">• 1 cup cooked basmati rice• Lamb or Paneer curry• Side dish of cooked vegetables such as cauliflower, green beans and spinach
Supper	<ul style="list-style-type: none">• 1 cup reduced fat milk

Continued on page 11

Gestational diabetes

Breakfast	<ul style="list-style-type: none"> • 1 cup Congee (rice porridge) using Low GI rice or • 1 vegetable pancake (using wholemeal flour) • 1 glass of reduced fat dairy or soy milk
Morning tea	<ul style="list-style-type: none"> • 1 pear, 1 small handful of nuts
Lunch	<ul style="list-style-type: none"> • 1 cup cooked rice noodles (stir fry or soup) • Stir-fry chicken or • Egg omelette with vegetables (e.g. snowpea, mushroom, capsicum)
Afternoon tea	<ul style="list-style-type: none"> • 1 cup reduced fat dairy or soy milk
Dinner	<ul style="list-style-type: none"> • 4 dumplings (average size) or 1 cup cooked Low GI rice with Beef or Tofu and • Vegetables – bok choy, broccoli, cabbage etc.
Supper	<ul style="list-style-type: none"> • 2 small mandarin





Food variety

Eating a variety of foods is important to meet the nutritional needs of you and your baby. If you are following a vegetarian or vegan diet, you are more likely to need extra supplements. This may include B12 which is important for baby's brain development.

The Australian Dietary Guidelines make the following suggestions for women during pregnancy:

Vegetables and legumes/beans

1 serve =

½ cup	½ medium	1 cup	½ cup
			

Serves per day

	18 years or under	19-50 years
Pregnant	5	5

Fruit

1 serve =

1 medium	1 cup	2 small
		

Serves per day

	18 years or under	19-50 years
Pregnant	2	2

Continued on page 12

Gestational diabetes

Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties

1 serve =

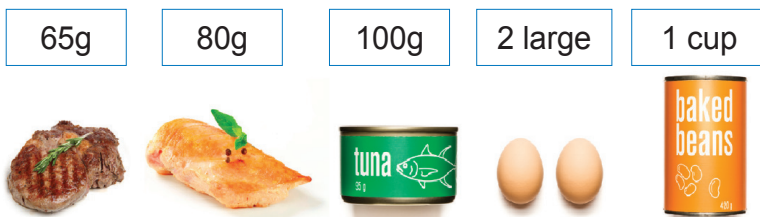


Serves per day

	18 years or under	19-50 years
Pregnant	8	8½

Lean meats and poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans

1 serve =

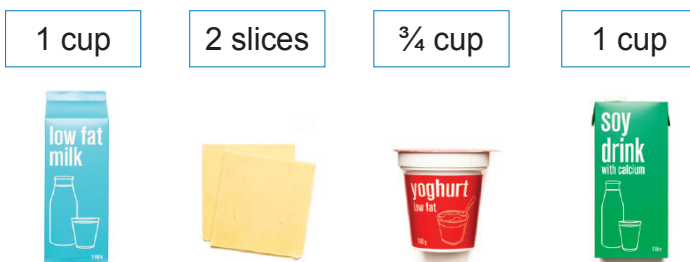


Serves per day

	18 years or under	19-50 years
Pregnant	3½	3½

Milk, yoghurt, cheese and/or alternatives, mostly reduced fat

1 serve =



Serves per day

	18 years or under	19-50 years
Pregnant	3½	2½

Extra nutritional needs during pregnancy



First Trimester

Generally, no increase unless having twins or triplets, underweight or unwell with severe morning sickness.



Second and Third Trimester

Requirements increase by 600kJ a day.

This equals one of the options below:

- 1 slice of bread
- 30g nuts
- 1 glass milk
- 1-2 serves fruit
- 4-6 wholegrain dry biscuits



Physical activity

30 minutes of physical activity is recommended each day, unless you have been told not to exercise. This can be broken up across the day. Short walks after a meal can help to reduce after meal blood glucose levels. If you are not exercising, try to build up to 30 minutes slowly.

Physical activity can include:

- ✓ Walking
- ✓ Pregnancy Pilates
- ✓ Taking the stairs
- ✓ Swimming
- ✓ Bike riding
- ✓ Active play with children in the backyard or playground
- ✓ Aqua or low impact aerobics or gym sessions
- ✓ Dancing
- ✓ Housework or gardening

Jogging or higher intensity physical activity should not be started during pregnancy. Discuss what is safe for you with your doctor.

Extra information

Healthy weight

Too much weight gain during pregnancy can make managing blood glucose levels during pregnancy more difficult. It also increases the risk of complications during birth.

For women who are underweight at the time of conception, extra weight gain may be required to support the baby's growth during pregnancy and breastfeeding after delivery.

If you are losing weight, talk to your dietitian or doctor about this.

Pre-pregnancy maternal weight range	BMI (kg/m ²)	Maternal weight gain during pregnancy
Underweight	Less than 18.5	12.5–18kg
Healthy weight	18.5–24.9	11.5–16kg
Overweight	25.0–29.9	7.0–11.5kg
Obese	More than 30	5.0–9.0kg

Source: *New Recommendations for total and Rate of Weight Gain during Pregnancy Institute of Medicine 2010.*

Extra weight gain is expected for mothers pregnant with twins or triplets.

Discuss your individual weight gain expectations with your doctor.

Gestational diabetes

Dietary supplements

A multivitamin supplement is commonly recommended during pregnancy. Discuss your requirements with your treating doctor and dietitian.

Multivitamins not formulated specifically for pregnancy are not recommended. As there is a danger of excess intake of Vitamin A, Vitamin D and Vitamin B6, but inadequate iodine and iron.

A supplement containing at least 150ug iodine is recommended for most pregnant women in the third trimester. Iodine is important to help the baby's brain development.

If you have a thyroid condition or haemochromatosis, discuss suitable supplementation with your treating doctor before taking any supplement containing iodine or iron.

Suitable multivitamins for pre-conception and pregnancy include:



Elevit



**Fefol
Multi-Preg**



**Swisse
Pregnancy+ Ultivite**



**Blackmore's
Pregnancy &
Breast-feeding Gold**

Iron

Maintaining iron levels in early pregnancy is important to prevent a premature birth or low birth weight baby. Extra iron is needed during your third trimester to build the babies iron stores and maintain your own levels.

Iron levels should be checked early in pregnancy and then again around 28 weeks. If you have had an iron deficiency or follow a vegetarian or vegan diet, you may require an iron supplement.

Foods high in iron include:



- Lean meat
- Poultry
- Dark flesh fish like salmon



- Legumes
- Lentils
- Grains
- Nuts



- Leafy vegetables also contain iron but this iron is not absorbed as well by the body.

Gestational diabetes

Calcium

Calcium supplementation may be recommended to reduce the risk of high blood pressure known as pre-eclampsia.

Dietary sources of calcium include:



Dairy foods

Soft bony fish

Almonds

Vitamin D

Vitamin D should be checked once the pregnancy is confirmed. If your levels are low, your doctor may recommend a supplement.

Alcohol

For pregnant women not drinking alcohol is the safest option.

Artificial sweeteners

Artificial sweeteners including Equal or Splenda or natural sweeteners including Stevia are safe alternatives to sugar during pregnancy.



Caffeine

Having too much caffeine may increase the risk of pregnancy complications. Intake should be limited to 200mg or less per day.



See the list below of drinks containing caffeine:



Product	Average Serve	Caffeine
Decaffeinated coffee	1 teaspoon	3mg
Instant coffee	1 teaspoon	60mg
Espresso coffee	1 regular shot	90mg
Herbal tea	1 cup/tea bag	0mg
Green tea	1 cup/tea bag	30mg
Black tea	1 cup/tea bag	50mg
Hot chocolate / Cocoa	1 cup	10–70mg
Cola drinks	500ml	40mg
Chocolate	60g	40mg
Energy drinks	1 can (230–250ml)	70–85mg

Gestational diabetes

Food hygiene including Listeria and Salmonella

Preparing, storing foods safely and avoiding foods that may contain listeria is important during pregnancy. Listeria is dangerous and can cause premature birth or miscarriage. Listeria is killed at very hot temperatures.

Food Standards Australia make the following recommendations for food safety below:

Food	High risk / Avoid	Lower risk
Juices	Unpasteurised juices such as cold pressed or freshly made	Pasteurised juices
Spreads and dips	Tahini, Hummus, dips with raw egg	Packaged or homemade dips without high risk food such as tahini, raw egg or smoked fish. Eat within a day of opening or making.
Cold or hot cooked chicken	Purchased (whole, portions or diced) ready-to-eat 	Home cooked or take away. Cooked / reheated thoroughly and use immediately. 
Pate	Refrigerated pate or meat spreads	Nil
Salads (Fruit and vegetables)	Pre-prepared or packaged salad and sprouts (e.g. from salad bars, smorgasbords, supermarkets)  Juices	Home made, freshly made, wash thoroughly. Store any leftover in fridge and use within one day of preparation.
Starchy foods	Cooled rice, pasta, potato and other grains	Hot rice, pasta, potato and other grains
Seafood	Raw (e.g. oysters, sashimi or sushi) Smoked ready-to-eat Ready-to-eat peeled cooked prawns (e.g. in prawn cocktail, sandwich filling and prawn salad) 	All freshly cooked seafood. Use immediately, store any leftovers in fridge and use within one day of cooking. 
Cheese	Soft, semi soft and surface ripened cheeses (pre-packaged and deli) (e.g. brie, camembert and blue cheese, fresh or cold ricotta and feta) 	Hard cheese (e.g. cheddar, tasty), processed cheese, cheese spreads, plain cream cheese, plain cottage cheese. Cheese packaged by the manufacturer. Cooked ricotta and feta 
Ice-cream	Soft serve Thick shakes 	Packaged frozen ice-cream 
Other dairy products	Unpasteurised dairy products (e.g. raw milk)	All pasteurised milk, yoghurt, custard, dairy desserts

Mercury

You can safely consume fish during pregnancy if you follow the recommendations:

Recommended intake for pregnant women and women planning pregnancy

(1 serve = 150g cooked weight)

2-3 serves per week of any fish and seafood not listed below (e.g. salmon, tuna, flathead, snapper)

OR

1 serve per week of Orange Roughy (Sea Perch) or Catfish and **no other fish that week**

OR

1 serve per fortnight of Shark (Flake) or Billfish (Swordfish / Broadbill / Marlin) and **no other fish in that fortnight**

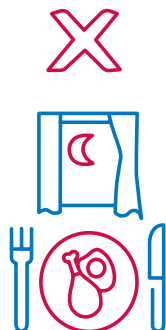
Source: www.foodstandards.gov.au/consumer/chemicals/mercury/pages/default.aspx

Too much mercury can impact on the nervous system development of the baby.

Reflux and heartburn

As your baby gets bigger it puts pressure on your stomach and this may cause reflux.

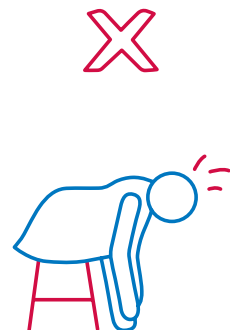
To reduce the frequency and severity of reflux:



Avoid eating large amounts at mealtimes and avoid eating late at night.



Stay upright after meals (e.g. sitting up straight or gentle walking).



Avoid bending over or lifting after meals.

Before taking any medication for reflux, discuss this with your doctor or pharmacist.

Gestational diabetes

Constipation

Pregnancy hormones can slow down the muscles that assist bowel movement, this can cause constipation.

To prevent and manage constipation:



Drink plenty of fluid, especially water.



Increase dietary fibre from vegetables, legumes and wholegrains.



Add a natural fibre supplement such as psyllium added to breakfast cereal, Metamucil or Benefibre.



Maintain regular physical activity.

Before taking any medication for constipation, discuss this with your doctor or pharmacist.

What happens after delivery?

If you needed insulin or metformin during your pregnancy in most cases these are stopped once the baby is born. There is some risk that within the first 24-48 hours your baby may have low blood glucose after being born. If this happens, your baby will need special monitoring and may be transferred to a special care nursery.



Breastfeeding

Having GDM does not stop you from breastfeeding. Breastfeeding is recommended and can provide all the nutrients and fluid a baby needs until around 4–6 months of age when solid foods can be introduced.

Breastfeeding can continue beyond 6 months as long as you and your child would like to keep going.

The benefits of breastfeeding include:

- ✓ Protection for baby against chest, gut and urinary infections
- ✓ Reduced risk of obesity and diseases such as diabetes later in the baby's life
- ✓ Weight management for mother
- ✓ Reduced risk of breast and ovarian cancer for mother
- ✓ Reduced cost and preparation time compared to formula feeding

Gestational diabetes

Your nutritional needs increase when breastfeeding for the following food groups:

Vegetables: 7.5 serves per day

1 serve =

½ cup



½ medium



1 cup



½ cup



Bread and cereals: 9 serves per day

1 serve =

1 slice



½ cup
cooked



2/3 cup



½ cup
cooked



Whilst in hospital, the nurses or lactation consultations will be able to support your journey with breastfeeding.

Babies who are not breastfed require a commercial infant formula to meet their nutritional needs.

Blood glucose monitoring after birth

Your healthcare team will advise you how often to check your blood glucose level to check these have returned to a healthy range.

Blood glucose check

It is recommended you have a repeat oral glucose tolerance test 6–12 weeks after delivery, and then every 1–2 years. If you are planning another pregnancy, an oral glucose tolerance test should be performed at the first opportunity before conception and earlier during the pregnancy.



Gestational diabetes

Reducing type 2 diabetes risk

Women who have had gestational diabetes are 10 times more likely to develop type 2 diabetes than women who didn't have gestational diabetes.

To keep yourself healthy and reduce your risk of developing future GDM or type 2 diabetes:



- ✓ Follow a healthy balanced eating plan including: vegetables, fruit, wholegrain bread, cereals, lean protein for example meat, poultry, fish, tofu, legumes and eggs, reduced fat dairy and healthy oils including extra virgin olive oil and nuts.



- ✓ Choose high fibre and low saturated foods.



- ✓ Achieve and maintain a healthy body weight. Breastfeeding can assist this.



- ✓ Aiming to do at least 30 minutes of exercise per day including aerobic and strength training.



We wish you all the best moving forward for a safe pregnancy, please reach out to your team if you have any further questions.

More information

 Call us on **(03) 8532 1800** or

 visit **www.baker.edu.au**



Baker Heart and Diabetes Institute
Level 4, 99 Commercial Road, Melbourne, Vic 3004 Australia
T (03) 8532 1800 **F** (03) 8532 1899 **W** www.baker.edu.au



© 2021 Baker Heart and Diabetes Institute
Review date: 2023.