

CLIENT EDUCATION SERVICES PROVIDED BY HEALTHY LIVING NT

If you have any type of diabetes, pre-diabetes or a cardiac condition, Healthy Living NT employs diabetes nurse educators, cardiac nurse educators and dietitians who can help you with the management of your condition.

These services can be obtained in Darwin, Palmerston and Alice Springs, or if you live out of town, by phone or by email. Contact Healthy Living NT for more information on Darwin 8927 8488, Alice Springs 8952 8000 or email info@healthylivingnt.org.au

DIABETES

Diabetes nurse educators and dietitians deliver individual and group diabetes education in Darwin, Palmerston and Alice Springs.

Type 2 Diabetes and Impaired Glucose Tolerance (IGT)

Getting Started Group - Held fortnightly on a Wednesday morning in Darwin, monthly on a Wednesday evening at Palmerston and Wednesday morning in Alice Springs.

Insulin Initiation and Stabilisation

Individual appointments are made for people commencing or reviewing their insulin regimen.

Gestational Diabetes

Initial weekly group session or individual education session and review within a week to monitor self blood glucose monitoring and dietary changes.

People with Type 1

Have high priority. Individual education and support appointments are available, including pump support and prepregnancy planning. A children's group is organised in Darwin every three months.

CARDIAC

Cardiac nurse educators and dietitians deliver individual and group cardiac education in Darwin, Palmerston and Alice Springs.

Hospital Education

Daily visits to Royal Darwin, Alice Springs Hospitals and Darwin Private Hospital for inpatient education.

Healthy Heart Program (Cardiac Rehabilitation)

A four week rotating program with a two hour session each week which includes one hour each of exercise and one hour of education.

These sessions are held in Darwin and after hours in Palmerston. In Alice Springs individual education sessions and group exercise classes are held weekly.

Individual Consults

Individual appointments can be made for anyone not wanting or able to be a part of the exercise program.

Pre Procedure Consults

Appointments for people travelling interstate for a cardiac procedure or operation.

ALL SERVICES

Touching Base Group

Drop-in sessions for people with diabetes and heart disease are held twice a month in Darwin and monthly in Alice Springs.

Special Needs Clients

Individual appointments will be made for people who have a physical impairment e.g. deafness, impaired vision, lack of mobility etc. or any client who cannot attend a group education session

Out of Town Clients

Appointments will be made to coincide with visits to Darwin or Alice Springs.

Telephone consultations are also available by appointment and we are also happy to correspond with you by email.

Interpreter Bookings

Interpreters can be booked for any client for whom English is not a first language

Darwin

Shop 1 & 2 Tiwi Place, Tiwi NT 0810 PO Box 40113, Casuarina NT 0811 Phone: 08 8927 8488 Fax: 08 8927 8515 E: info@ healthylivingnt.org.au

Alice Springs

Jock Nelson Centre, 7/16 Hartley Street, Alice Springs NT 0870 Phone: 08 8952 8000 Fax: 08 8952 7000 E: alicesprings@ healthylivingnt.org.au

www.healthylivingnt.org.au ABN 11 374 693 055

Healthy Living NT is the trading name of the Diabetes Association of the Northern Territory Incorporated.



Access Points

Healthy Living NT is pleased to provide the following National Diabetes Services Scheme (NDSS) Access Points and general diabetes product outlets:

	Handaha Hading AlT					
	Healthy Living NT Shop 1 & 2 Tiwi Place Tiwi NT 0810					
TIWI	OPEN 8am -4pm Mon-Fri					
	Ph: 08 8927 8488 Fax: 08 8927 8515					
	Healthy Living NT					
	7/16 Hartley Street (Jock Nelson Centre) Alice Springs NT 0870					
	OPEN 8am -4pm Mon-Fri					
	Ph: 08 8952 8000 Fax: 08 8952 7000					
	United Chemists Alice Springs NDSS Sales only					
ALICE SPRINGS	Shop 28 Coles Complex Ph: 08 8952 4173					
	Priceline Pharmacy Alice Springs NDSS Sales only					
	Shop 3/4 Alice Plaza, Todd Mall Ph: 08 8953 0089					
	Northside Pharmacy NT NDSS Sales only					
	Shop 3/6 Hearne Place Ph: 08 8952 0064					
	Chemist Warehouse Darwin GPO NDSS Sales only					
	48 Cavenagh Street Ph: 08 7969 5702					
	Bardens Amcal Pharmacy Galleria					
DARWIN CITY	Shop 1&2 The Galleria Smith Street Mall Ph: 08 8981 2333					
DARWIN CITT	Bardens Amcal Pharmacy CBD Plaza					
	47 Cavenagh Street Ph: 08 8981 8522					
	Chemist Warehouse Mitchell Street NDSS Sales only					
	Shop 2 Mitchell Centre Ph: 08 8981 4442					
STUART PARK	Territory Pharmacy Stuart Park NDSS Sales only					
JIOANI I ANN	4/5 Westralia Street Ph: 08 8981 8075					
DADAD	Bardens Amcal Pharmacy Parap					
PARAP	4 Colroy Building Parap Shopping Village Ph: 08 8981 3421					
	Winnellie Compounding Pharmacy NDSS Sales only					
WINNELLIE	Shop 18 Winnellie Shopping Centre Ph: 08 8981 6888					
LUDMILLA	Chemist Warehouse Ludmilla NDSS Sales only					
	187 Bagot Road Ph: 08 8985 1034					
NIGHTCLIFF	Nightcliff Amcal Pharmacy					
	Shop 9-12 Nightcliff Shopping Centre Ph: 08 8985 1538					
	Casuarina Amcal Max Night & Day Pharmacy					
	Shop 3/11 Vanderlin Drive Ph: 08 8927 7857					
	PharmaSave Casuarina Square Pharmacy Shop 15 Casuarina Square Shopping Centre, Trower Road Ph: 08 8927 1431					
CASUARINA	Chemist Warehouse Casuarina NDSS Sales only					
	Unit 3&4 4 Rowling Street Ph: 08 8927 0077					
	PharmaSave Casuarina Village Pharmacy NDSS Sales only Short 1 54 Bradshow Tayroon The Village Casuarina Phy 08 8027 1050					
	Shop 1 54 Bradshaw Terrace, The Village Casuarina Ph: 08 8927 1050					
LEANYER	Hibiscus Day & Night Pharmacy					
	Shop 4 Hibiscus Shopping Village Vanderlin Drive Ph: 08 8945 5955					

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MARRARA	Chemist Warehouse Marrara NDSS Sales only Shop 5 Links Road Ph: 08 7969 5706
KARAMA	PharmaSave Karama Pharmacy NDSS Sales only Shop 18-19 Karama Shopping Plaza Ph: 08 8945 0711
BERRIMAH	Chemist Warehouse Darwin NDSS Sales only Shop 4 798 Vanderlin Drive Ph: 08 8947 4044
	PharmaSave Palmerston Pharmacy Shop 46-47 Palmerston Shopping Centre Temple Terrace Ph: 08 8932 1623
	Territory Pharmacy Palmerston Shop 20-21 Oasis Shopping Centre Chung Wah Terrace Ph: 08 8935 9600
PALMERSTON	Chemist Warehouse Durack NDSS Sales only Shop 8/130 University Avenue Durack NT 0830 Ph: 08 8931 4452
	Palmerston Superclinic Pharmacy Shop 1/3 Gurd Street Ph: 08 8932 6060
	Choice Pharmacy Palmerston NDSS Sales only Shop 8, 1 Mannikan Court, Bakewell Ph: 08 8931 0678
	Pharmacy 4 Less Gateway Shop MM1A Gateway Shopping Centre, 1 Roystonea Ave Ph: 08 8932 2185
HOWARD SPRINGS	PharmaSave Howard Springs Pharmacy NDSS Sales only Shop 3 Howard Springs Shopping Centre Ph: 08 8983 3788
COOL ALIAICA	Chemist Warehouse Coolalinga Central NDSS Sales only Shop 34/35 Coolalinga Central Ph: 08 8426 8406
COOLALINGA	Better Health Pharmacy - Coolalinga Shop 2 Woolworths Shopping Centre Ph: 08 8983 2215
HUMPTY DOO	Humpty Doo Amcal Pharmacy Shop 12 Humpty Doo Shopping Centre Ph: 08 8988 2201
BERRY SPRINGS	Country Wellness Pharmacy Shop B4 Berry Springs Shopping Village 10 Doris Road Ph: 08 8988 6575
NHULUNBUY	Gove Amcal Pharmacy NDSS Sales only Endeavour Square Ph: 08 8987 1155
	PharmaSave Katherine Pharmacy NDSS Sales only Shop 18 Oasis Shopping Centre Ph: 08 8972 3310
KATHERINE	Territory Pharmacy Terrace NDSS Sales only 2/32 Katherine Terrace Ph: 08 8972 1229
TENNANT CREEK	United Discount Chemist Tennant Creek NDSS Sales only 123 Paterson Street Ph: 08 8962 2616
KUNUNNURRA	Kununurra Amcal Pharmacy Shop 10 Kununurra Shopping Centre Konkerberry Drive Ph: 08 9168 1111



Information Sheets

The following consumer diabetes and cardiac information sheets are available from Healthy Living NT or from our website www.healthylivingnt.org.au.

These Information Sheets are FREE

Diabetes Information Sheets

	Diabetes inic	,,,,,,,,	ion sheets
1	Alcohol and Diabetes	30	Reading Food Labels
2	Alternative Sweeteners	31	Sexual Health and Diabetes
3	Balancing Food, Activity and Insulin	32	Sick Days and Type 1 Diabetes
4	Blood Glucose Monitoring	33	Sick Days and Type 2 Diabetes
5	Blood Pressure and Diabetes	34	Smoking, Pre-Diabetes and Diabetes
6	Coeliac Disease and Diabetes	35	Staying Well (Preventing Complications)
7	Day Surgery and Procedures	36	Stress and Diabetes
8	Depression and Diabetes	37	Support Persons: Type 1
9	Diabetes and Your Feet	38	Support Persons Hypoglycaemia
10	Diabetes and Good Health	39	Support Persons: Physical Activity
11	Do you need to lose weight: Men	40	Type 2 Diabetes in Children/Adolescents
12	Do you need to lose weight: Women	41	Travel and Diabetes
13	Eating Out and Diabetes	41a	Travel Checklist for Type 1 Diabetes
14	Information about Sugar	42	What is Diabetes?
15	Food Choices	43	Diabetes and your Eyes
16	Gestational Diabetes	44	Illicit Drug use and Diabetes
17	Glycaemic Index	45	Steroids and Diabetes
18	Healthy Eating Guide		
19	Healthy Eating for Gestational Diabetes	•	Storage of Test Strips
20	Healthy Hints Modifying Recipes	•	How to get a Drop of Blood
21	Healthy Snacks and Diabetes	•	Who ever said Exercise was easy?
22	Heart Disease and Diabetes	•	Free Foods
23	Hypoglycaemia and Diabetes	•	Glycaemic Index for Carbohydrate Foods
24	Insulin and Diabetes	•	Sources of Carbohydrates
25	Medications for Type 2 Diabetes	•	Heat and Insulin
26	Oral Health and Diabetes	•	Flying with Syringes
27	Physical Activity and Diabetes	•	Healthy Eating for Mothers-to-be
28	Polycystic Ovarian Syndrome	•	Mixing Insulin

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29 Pre-Diabetes

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Melioidosis (NT Gov Publication)

Cardiac Information Sheets

- Ace Inhibitors
- Activity At Home
- Activity Post MI / Surgery
- Travelling To Adelaide
- Amiodarone
- Angina Management Plan
- Aspirin
- Atrial Fibrillation
- Calcium Channel Blockers
- Beta Blockers
- ATSI Activities after a Heart Attack

- Cardiac Risk Factors
- Cardioversion
- Cholesterol Lowering Agents
- Clopidogrel
- Digoxin
- Loop Diuretics
- Making The Most Of Your GP
- Nitrates
- Relaxation Technique
- Cardiac Risk Factor Assessment
- ATSI Activities after a Heart Surgery
- Automatic Implantable Cardioverter Defibrillator (AICD)

To obtain copies of any of the resources listed:

- Download Information Sheets from <u>www.healthylivingnt.org.au</u>
- Some Information Sheets are available in a variety of languages

Phone 8927 8488 to confirm availability

- For information about Health Professional Indigenous Resources please contact our office or visit our web site <u>www.healthylivingnt.org.au</u> Member discounts apply
- For bulk orders please contact Healthy Living NT on 89278488 or info@healthylivingnt.org.au

Membership Fees are paid annually:

- Individual General \$32.00
- Individual Pensioner \$22.00
- Extra Family Member \$16.00
- Health Professional/Organisation \$50.00



HEALTHY LIVING NT INFORMATION PACK EVALUATION FORM

We would appreciate it if you could complete the following survey and return it to healthy Living NT by mail, fax or at your next appointment. This survey will help us to ensure that the information we provide is useful and helpful in managing diabetes.

1.	What type of information pack did you receive?						
	☐ Type 2 ☐ IGT ☐ Insulin ☐ Gestational ☐ Type 1						
2.	How much of the information did you read?						
	☐ All of it ☐ Some of it ☐ None of it						
3.	How informative did you find the information pack?						
	☐ Very informative ☐ informative ☐ Adequate ☐ Not informative						
4.	Was there sufficient information provided in the information pack?						
	□ Yes □ No						
5.	What, if anything, did you find most helpful/useful in the information pack?						
ě-							
6.	What, if anything, did you find the least helpful/useful in the information pack?						
7.	Is there anything that you would like to see added to this information pack? ☐ Yes ☐ No res, what would you like to see added?						
8. If y	Is there anything that you would like to see removed from the information pack? ☐ Yes ☐ No res, what would you like to see removed?						
9.	Comments						
Th	Thankyou for taking the time to complete this evaluation						
Pos	stcode: Date:						

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Your partner in heart & diabetes health

Congratulations on making this step to self managing your **Impaired Glucose Tolerance**. This resource pack provides you with information about Healthy Living NT and information to help you understand and manage your IGT / prediabetes.

Introduction to Healthy Living NT

- Privacy Statement
- Client Education Services
- HLNT Membership

- Consumer Charter
- Evaluation Form
- Information Sheet List

Important Information

- Understanding Pre-Diabetes
- Alcohol
- Understanding Food Labels
- Food Choices for People with Diabetes
- Physical Activity
- Sources of Carbohydrate Foods
- Free Foods
- Glycaemic Index for Carbohydrate Foods
- What is a Serve of Fruit/Veg
- What is a Serve of Meat/Dairy

Recommended Additional Information – available on request or website

- Glycaemic Index
- Eating Out
- Alternative Sweeteners
- Hints for Healthy Cooking
- Healthy Snacks
- Melioidosis

We have also included a copy of the *Territory Way* magazine. If you would like to receive this on a regular basis please see our information on membership.

If you have any questions regarding the contents of this information pack, or need further advice and support, we encourage you to contact us in Darwin on (08) 8927 8488, or Alice Springs on (08) 8952 8000 to make an appointment with the Diabetes Nurse Educator and/or Dietitian, or visit our website at www.healthylivingnt.org.au/resources

WWW.iicultiyiiviight.org.uu/1050u

Regards

The Healthy Living NT Team

The distribution of this pack is supported by the National Diabetes Services Scheme (NDSS), an initiative of the Australian Government administered by Diabetes Australia Ltd.

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Understanding pre-diabetes

Pre-diabetes is a condition in which blood glucose levels are higher than normal, but not high enough to be diagnosed as diabetes.

Pre-diabetes has no signs or symptoms, making it difficult to detect. It is a risk factor for the development of type 2 diabetes and cardiovascular disease, such as heart disease and stroke. Pre-diabetes affects about 16% of Australian adults.

Who is at risk of pre-diabetes?

Pre-diabetes usually occurs in adults but younger people can also develop this condition. Risk factors for pre-diabetes are the same as those for type 2 diabetes. These include:

- » having a family history of type 2 diabetes
- » being above the healthy weight range
- » having an inactive lifestyle
- » having an Aboriginal or Torres Strait Islander background
- » being from a Melanesian, Polynesian, Chinese, Southeast Asian, Middle Eastern or Indian background
- » having gestational diabetes during pregnancy
- » being a woman with polycystic ovary syndrome.

People who have pre-diabetes can delay and, in some cases, prevent the development of type 2 diabetes by following a healthy lifestyle. This includes regular physical activity, making healthy food choices and being a healthy weight.

How is pre-diabetes managed?

Pre-diabetes is managed by making healthy lifestyle changes to reduce the risk of developing type 2 diabetes and heart disease. This includes:

Weight loss – losing as little as 5-10% of your weight can help lower blood glucose levels and reduce your risk of developing diabetes.



Helpline 1300 136 588

ndss.com.au

Regular physical activity – being active can help you manage your weight and reduce your blood glucose levels. It can also help manage other risk factors, such as blood pressure and cholesterol levels. Aim to do at least 30 minutes of 'moderate intensity' physical activity (such as brisk walking or swimming) every day.

Try to include some resistance training (such as body weight exercises or light weights) twice a week to improve the way your muscles work. Always talk to your doctor before starting any new type of physical activity.

Healthy eating – choose a wide variety of foods including fruit, vegetables, wholegrains, lean meats and low fat dairy foods. Include high-fibre, low glycemic index (GI) carbohydrate foods. To manage your weight, it's important to reduce your total energy (kilojoule) intake. Limiting saturated fat can also help the way your body's insulin works and keep blood fats in the target range.

A dietitian can help with the best food choices for weight loss and for reducing your risk of developing type 2 diabetes.

Blood pressure and blood fats (cholesterol and triglycerides) – it's important to keep these in the target range recommended by your doctor. Blood pressure and blood fats should be checked on a regular basis.

Smoking – can also increase your risk of developing type 2 diabetes and heart disease. If you smoke, try and quit. Some people find this difficult, so if you feel you can't give up smoking on your own, ask for help – talk to your doctor or call the Quitline on 137 848.

If you have pre-diabetes, it's important to have an annual health check, including screening for type 2 diabetes. By adopting healthy lifestyle changes, type 2 diabetes can often be prevented or delayed.



How is pre-diabetes diagnosed?

To diagnose pre-diabetes, your doctor will send you to have your blood glucose levels checked at a pathology lab. There are two blood tests that can be used:

- A fasting blood glucose or a non-fasting random blood glucose This involves having blood taken from a vein in your arm. This test may be done fasting (after nothing to eat or drink for at least eight hours) or nonfasting. If your blood glucose levels are above the normal range (but not high enough to be diagnosed as diabetes) you will need further testing.
- An oral glucose tolerance test (OGTT) You will have a fasting blood glucose test first. You will then be given a sugary drink and have your blood checked again two hours later. The results from the OGTT will show whether your blood glucose levels are in the normal, pre-diabetes or diabetes range.

If you have pre-diabetes, you will have one or both of the following conditions:

- Impaired fasting glucose: This is when your fasting blood glucose level is higher than normal, but not high enough to be diagnosed as diabetes.
- Impaired glucose tolerance: This is when your blood glucose level is higher than normal two hours after an OGTT, but not high enough to be diagnosed as diabetes. Your fasting blood glucose level may still be in the normal range.

The NDSS and you

The NDSS provides a range of services to help you manage your diabetes. These include our Infoline and website for advice on diabetes management, NDSS products and a range of support programs to help you learn more about managing your diabetes.

Published June 2016





Physical activity

Regular physical activity is one of the most important things you can do to improve your health and help manage your diabetes.

The more physically active you are, the greater the health benefits will be. However, any activity, even at a slow pace, can have health benefits, and some activity is better than none at all.





Benefits of exercise

When the body starts to exercise, the muscles need energy to move. This energy comes from glucose in the blood as well as glucose stored in the muscles and, occasionally, from stores in the liver. Physical activity plays a vital role in helping the body use this glucose as fuel for the working muscles, which in turn lowers blood glucose levels.

There are plenty of benefits of regular physical activity, including:

- reducing the risk of heart disease and stroke
- » lowering cholesterol levels
- » helping to lower blood pressure
- assisting with weight loss and maintaining a healthy weight
- » slowing age-related loss of muscle mass
- » preventing osteoporosis and risk of falls
- » increasing strength, power and balance.

Types of exercise

Doing a combination of different types of physical activity has proven benefits for managing diabetes. There are two main types of physical activity: aerobic exercise and resistance exercise.

Helpline 1300 136 588

ndss.com.au

Aerobic exercise

Aerobic exercise is any activity that involves large muscle groups working at a pace that can be sustained for more than a few minutes. It gets your heart and lungs working harder. Examples include walking, dancing, aerobic exercise classes, cycling and swimming.

Resistance exercise

Resistance exercise involves working your muscles against a load or resistance. This can be your own body weight (such as moving from sitting to standing or doing squats or wall push-ups) or using equipment to provide resistance (such as machine weights, dumbbells, cans of food or resistance bands). Speak to a qualified exercise professional about a resistance program to suit your needs.

How often should you exercise?

Ideally, you should do aerobic exercise on most – preferably all – days of the week, and resistance exercise two or three times week. When starting a new exercise program it's important to discuss this with your doctor.

How hard do you need to exercise?

It's important to think about exercise intensity – or how much effort you put in – during physical activity. You need to exercise at a moderate level of intensity to get the most benefit from being active.

A good way to work out your level of intensity is to use a scale between 0–10:

- Moderate Intensity (3–4 out of 10)
 Requires some effort and you should feel
 an increase in your breathing but you
 can still hold a conversation (e.g. brisk
 walking, cycling).
- Vigorous intensity (5+ out of 10) Involves activities that make you breathe harder, puff and pant (e.g. jogging, circuit classes).



How long should you exercise for?

The target amount of exercise will vary according to your goals and your initial level of fitness. If you currently do no physical activity, start by doing some activity and then gradually build up. You could start by joining together short blocks of exercise, such as combining a 15 minute walk with 15 minutes of cycling to make 30 minutes of moderate exercise.

Put together:

- at least 30 minutes of moderate intensity aerobic activity every day of the week (that is, 210 minutes a week) OR
- y 40–45 minutes of vigorous intensity aerobic activity on at least three days of the week (that is, 125 minutes a week) OR
- » a combination of moderate and vigorous aerobic activity PLUS
- » 2–3 sessions of resistance training each week.

Spending too much time sitting down can have a negative effect on your health, regardless of whether you are meeting the recommended physical activity guidelines. It's important to minimise the amount of time spent sitting. Break up long periods of sitting as often as possible to reduce your health risks.



Tips to help you be more active

- Plan the times and set the days to do your exercise, like an appointment.
- Exercise with a friend, family member or in a group.
- Increase your day to day activity such as walking all or part of the way to work or the shops.
- Set yourself an exercise goal and keep an exercise diary to track your progress.
- Use an activity tracker (step-counting device) to record your steps each day.
- Stand and move about while talking on the phone or during TV ad breaks.
- Look for opportunities to stand rather than sit (e.g. at work meetings).

Starting a new exercise program

Before starting any new exercise or activity program, check with your doctor to make sure it's suitable for you.

If you are on insulin or other glucose lowering medications, you may need to take special precautions when exercising, in order to prevent your blood glucose level from dropping too low (hypoglycaemia or a hypo). Make sure you discuss this with your GP, endocrinologist or diabetes educator.

If you experience any of the following symptoms, stop exercising and consult your doctor immediately:

- » chest pain
- » unusual breathlessness
- » nausea
- » dizziness
- » severe muscular or joint pain.

If you suffer from leg pain while exercising, stop and rest until the pain settles, and then resume the activity. Leg pain can be a sign of reduced blood flow to the lower limbs (also known as peripheral vascular disease). Talk to your doctor for more information.

Exercise and diabetes

When you have diabetes, there are some extra considerations to take into account before, during and after exercise.

Blood glucose monitoring

If your doctor has asked you to self-monitor your blood glucose levels:

- Check your blood glucose levels before and after exercise, and during exercise if it's for longer than 30 minutes. Your blood glucose levels may be lower for up to 48 hours after exercise.
- » Don't be worried if you see your blood glucose levels rise during brief, vigorous intensity exercise. This may persist for 1–2 hours after the activity.

Insulin adjustments

If you are using insulin, you may need to make adjustments to your insulin doses for physical activity. Insulin adjustment varies from person to person, so discuss your exercise routine and insulin adjustments with your doctor or diabetes educator.





High blood glucose levels

- » If your blood glucose level is higher than 15mmol/L, and you are unwell, you should avoid exercise.
- If you have type 1 diabetes and your blood glucose levels are higher than 15mmol/L, make sure you check for ketones before you exercise. It can be dangerous to exercise when blood glucose levels are high and/or ketones are present. Follow the advice of your diabetes health professionals about extra insulin doses to help bring your blood glucose levels back into the target range.

Hypoglycaemia

If you are using insulin or other blood glucose lowering medications you may be at risk of hypoglycaemia (a hypo). This occurs when your blood glucose level drops below 4mmol/L.

- If you have a hypo, you should treat the hypo and delay exercise until your blood glucose level is in the target range.
- If your blood glucose levels before exercise are between 4 and 6mmol/L, you may need to have additional carbohydrate foods before you exercise. You may also need extra carbohydrate during and after physical activity (depending on how long you are exercising for) to reduce your risk of hypos. Ask your diabetes educator or dietitian for advice.
- Make sure you have some easily absorbed carbohydrate available (such as jelly beans, glucose tablets or gels) so you can treat a hypo if necessary.

Remember

It's important to stay well hydrated before, during and after exercise.

Make sure you have appropriate footwear and check your feet at least once a day. A podiatrist can provide you with more information.

If you are exercising alone, stay safe by carrying a mobile phone with you.



More information

Ask your GP if you are eligible for a rebate from Medicare to see an exercise physiologist. Private health funds may also offer rebates for exercise physiologists – check with your health fund provider.

If you would like more information about physical activity and would like to see a qualified exercise physiologist, go to **www.essa.org.au** to find one in your area.

Everyday activities such as gardening, washing the car and housework are great ways to keep active.

The NDSS and you

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Published June 2016





Alcohol

Most people can enjoy a small amount of alcohol. However, drinking too much alcohol can be harmful to your health. When you have diabetes, there are some extra considerations if you choose to drink.

Alcohol can have a number of different effects on your body, including:

Weight gain – alcohol has very little nutritional value and is high in kilojoules/calories. If you consume alcohol in large amounts, or on a regular basis, it can lead to weight gain.

Making it difficult to manage your diabetes

 drinking alcohol can cause both high and low blood glucose levels. It can also make it easy to forget about looking after your diabetes.

Damage to the body – drinking large amounts of alcohol can be extremely dangerous. It can affect many different parts of the body, including the brain, liver and pancreas. Too much alcohol can also increase the risk of developing heart disease and some cancers.

Risk of complications – too much alcohol can increase the risk of developing complications related to diabetes. This is because alcohol can contribute to weight gain, increase triglycerides (blood fats) and raise blood pressure.

Alcohol and hypoglycaemia

If you are taking insulin or certain diabetes tablets, you are at risk of alcohol-related hypoglycaemia (hypos). 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.

Normally, the liver releases stored glucose if your blood glucose level falls too low. However, when you drink alcohol, the liver always processes the alcohol first, instead of releasing stored glucose. This can increase the risk of a hypo. Alcohol can also reduce your ability to recognise the symptoms of a hypo and make it more difficult to treat.

Ask your doctor or diabetes health professional whether you might be at increased risk of alcohol-related hypos.





Helpline 1300 136 588

ndss.com.au



Tips to reduce your risk of hypos

- Avoid drinking excessive amounts of alcohol. The more you drink, the greater your risk of a hypo.
- Don't drink alcohol on an empty stomach. Make sure you have a meal containing carbohydrate foods (such as rice, potato, pasta or bread) before drinking alcohol, or that you have snacks that contain carbohydrate* while drinking.
- Talk to your doctor about whether you should check your blood glucose levels when you drink alcohol. Your doctor may recommend checking your blood glucose levels more often (this might include checking before bed and again overnight, if possible).
- Always carry some hypo treatment, such as jelly beans or glucose tablets.
- When drinking alcohol, make sure you have someone with you who knows you have diabetes and who understands how to treat a hypo if needed.
- Always wear some form of diabetes identification – otherwise, people may mistake your hypo symptoms for being drunk, and you may not get the help you need to treat your hypo.
- Never stop taking your insulin to avoid having a hypo while drinking. Ask your diabetes educator for information on drinking safely when taking insulin.
- Eat a snack containing carbohydrate before you go to bed.
- Ask someone to wake you up in the morning to check that you are ok. If you self-monitor your blood glucose levels, check them when you get up and have breakfast as soon as you can.
- Avoid alcohol after vigorous exercise.





How much alcohol is safe?

Current guidelines for alcohol recommend no more than two standard drinks per day for both men and women. This recommendation is the same for people with or without diabetes.

You may be advised to drink less – or not at all – if you:

- » are above the healthy weight range
- » have trouble managing your blood glucose levels
- » have high blood pressure or triglycerides
- » have diabetes-related complications.

If you have other health conditions that are made worse by drinking, such as liver disease or pancreatitis, you may also be advised not to drink. Women who are pregnant, planning a pregnancy or breastfeeding should not drink alcohol. Alcohol is also not recommended for people under the age of 18, as it can affect brain development and function.

Some medications can react with alcohol. If you are taking any medications, ask your doctor or pharmacist whether you can drink alcohol when taking these.

What is a standard drink?

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
- y 425ml of low-alcohol beer (less than 3% alcohol)
- » 60ml of fortified wine
- » 100ml of wine
- » 30ml of spirits.

It's easy to over-estimate a standard drink, so it's a good idea to:

- check the number of standard drinks on the label of the bottle/can
- » measure out a standard drink into a glass, so you know what it looks like
- » be aware that many wine glasses can hold two or more standard drinks.

Standard Drinks regular beer beer beer fortified wine wine spirits spirits

What should you choose?

It's best to avoid very sweet drinks, such as regular soft drink mixers, sweet liqueurs and pre-mixed alcoholic beverages. Choose wine, low-alcohol beers or spirits with diet mixers.

Low-carbohydrate (low-carb) beers offer no advantage over regular beers. In fact, they are often higher in alcohol, which can be more of a problem for your diabetes management.

Ask your doctor, dietitian or diabetes educator about drinking alcohol safely.



Tips for drinking less alcohol

- Drink some water or a diet soft drink before drinking any alcohol, so that you are not thirsty.
- Choose low-alcohol (not low-carb) beer.
- Sip alcoholic drinks slowly.
- Alternate your alcoholic drinks with water.
- Dilute alcoholic drinks with nonalcoholic mixers to reduce the alcohol content – such as mixing beer with diet lemonade to make a shandy or mixing soda water with wine.
- Make sure you have regular alcohol-free days.

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Published June 2016





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 healthy foods, the two most useful tools 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. This panel provides useful information to help you compare similar products and choose the healthiest 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 100g
Energy		522KJ	1490KJ
Protein		1.8g	5.1g
Fat	TotalSaturated	1.0g 0.2g	2.9g 0.7g
Carbohydrate	e – Total – Sugars	26.5g 16.3g	75.6g 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 below.

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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. 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, both added sugars and natural sugars such as lactose in milk and fructose in fruit.

Remember, it's the total carbohydrate that 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.

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, fish, nuts, seeds and low-fat dairy. This leaves less room for '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 higher fibre foods have 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. Adults should 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

This means 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

A low-salt food has less than 120mg of sodium per 100g.

Low joule or diet

The product is usually artificially sweetened and/or low fat.

No added sugar

This means 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.

Reduced fat

This means 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 low 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 glycemic index (GI) symbol and the Health Star Rating system.

These symbols show that the product has been tested and meets specific criteria, but you should still check the nutrition information panel to make sure the product meets your needs.







More information

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

The Healthy shopping guide – your essential supermarket companion can help you make healthy food choices. To purchase a copy, call **1300 136 588**.

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Published June 2016





Food choices for people with diabetes

Healthy eating, along with regular physical activity, can help you look after your diabetes. It can also help you manage your weight and other risk factors, such as high 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.

To make healthy food choices:

- » eat regular meals in the amounts that are right for you
- » choose high-fibre, lower glycemic index 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

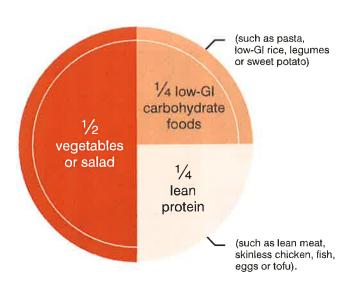
Aim to eat three meals during the day and choose serving sizes to meet your energy needs.

Talk to your dietitian for advice about your individual needs and the serve sizes that are right for you.

When putting together a healthy meal:

- » fill half of your plate with a variety of non-starchy vegetables or salad
- » fill a quarter of your plate with a lean protein source, such as lean meat (beef, lamb, pork), skinless chicken, fish/ seafood, tofu, legumes or eggs
- » fill a quarter of your plate with a carbohydrate food that has a lower glycemic index (GI), such as pasta, basmati/Doongara™ rice, quinoa, noodles, legumes (such as chickpeas, kidney beans, lentils), barley, corn, low-GI potato/sweet potato.

Include 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 in a stir-fry or salad.



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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.

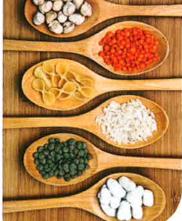
Foods that contain carbohydrate include:

- » breads, cereals and other grain foods, like rice and pasta
- » starchy vegetables, like potato, sweet potato and corn
- legumes such as lentils, chickpeas and dried or canned beans
- dairy products, like milk and yoghurt
- sugary foods and drinks.

To manage your blood glucose levels, you need to eat the right type and amount of carbohydrate foods. Include some carbohydrate food at each meal and spread the carbohydrate food you eat evenly across the day. This will help to maintain your energy levels without causing blood glucose levels to go too high or too low. If you take insulin, it's important to match your insulin dose and carbohydrate intake.







Some carbohydrates break down into glucose guickly 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 low GI, such as dense grainy/ seeded breads, oats, grains such as barley and quinoa, legumes, and most fruits.

Everyone has different nutritional needs, so talk to your dietitian about the amount of carbohydrate food that is right for you. See the 'Sample one-day meal plan' for an 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 for diabetes can include a small amount of sugar, such as a teaspoon of sugar in a cup of tea or coffee, a teaspoon of honey on porridge, or a thin spread of jam on toast.

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

While alternative sweeteners are not necessary, 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 'sugarfree' – does not guarantee they are a healthy choice, or that they won't affect your blood glucose levels.

Always check the nutrition information to make sure the product meets your needs, or ask a dietitian. There are many different alternative sweeteners available. 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 fat and trans fats

Saturated fats should be limited because they raise your blood LDL (bad) cholesterol levels and make it more difficult for the body's insulin to work properly. 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 (bad) cholesterol and lower your HDL (good) cholesterol levels. 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 (bad) cholesterol levels and increase your HDL (good) cholesterol levels. Replacing saturated fats with these healthy fats, can help to reduce your risk of heart disease.

Polyunsaturated fats include:

- » polyunsaturated margarines (check the label for the word 'polyunsaturated')
- » sunflower, safflower, soybean, corn, cottonseed, grapeseed and sesame oils
- 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.

Monounsaturated fats include:

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







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 2 or 3 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/seafood, eggs, nuts, seeds, dairy products, soy products (such as tofu), and legumes (dried beans and lentils). Choose lean sources of protein foods and low-fat dairy foods.

Choose foods low in added salt (sodium) 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 foods that are low in sodium, or are salt-reduced, and by not 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:

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

As an occasional substitute 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
- y 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 (hypos). 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 advise you on 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/diet or natural yoghurt
- » a serve of fresh fruit
- » a wholegrain crispbread spread with ricotta cheese, peanut butter or avocado.

Sample one-day meal plan

The following meal plan is an 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 www.daa.asn.au

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

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

Breakfast

- 3/4 cup of cooked rolled oats with lowfat milk, topped with fresh berries OR
- 2 slices of wholegrain toast, thinly spread with margarine, peanut butter, avocado or boiled/poached eggs OR
- 3 1 cup fresh fruit salad topped with 100g low fat fruit yoghurt
- » Tea, coffee or water

Lunch

- 2 slices of wholegrain bread or
 1 grainy bread roll with thinly spread margarine, avocado or hommus
- » Salad vegetables
- » A small serve of lean meat, skinless poultry, tinned fish, eggs or fat-reduced cheese
- » Water or sparkling mineral water

Dinner

- » Small serve (100 grams) of lean meat, skinless poultry, fish/seafood or 2 eggs
- 1½ cups of cooked vegetables OR2 cups of salad
- 1 cup of cooked pasta OR
 2/3 cup of low-Gl rice OR
 1 cup of sweet potato or corn OR
 1 cup of chickpeas/kidney beans
- » Water or sparkling mineral water

Snacks:

- » 1 piece of fresh fruit OR
- » 1 tub of low-fat yoghurt OR
- » 1 cup of low-fat milk OR
- » 1 slice of fruit bread OR
- 2 high-fibre wholegrain crispbread OR
- » 30g of unsalted nuts.

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Published June 2016



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Glycemic Index (GI) for Carbohydrate Foods

low Release – choose mostly (low Gl < 55)

Cereals

Freedom Foods Gluten Free muesliTM
Traditional Porridge/Rolled Oats Bran - Oat, Rice or Barley
Healthwise for Heart HealthTM
Kellogg's KompleteTM
Sanitarium muesliTM
Guardian
Special K*
All-BranTM

Medium Release (medium GI 56 – 69)

Untoasted / Swiss Muesli
Healthwise for Bowel Health™
Mini Wheat's whole wheat
Just Right™
Good Start Muesli™
Instant Oats
Soy Tasty™
Vita Brits™
Weet-Bix™
Hi-Bran Weet-Bix™
Sustain™
Sultana Bran™

Fast Release (high GI > 70)

Crunchy-Nut Cornflakes™
Cornflakes™* and Frosties™*
Mini Wheats blackcurrant™
Whole Wheat Goldies™
Rice Bubbles™*
Coco Pops™*
Corn Pops™*
Bran Flakes™
Lite-Bix™
Wheat-Bites™

Bread

Pumpernickel Wholegrain Bread Wholegrain/ Multigrain bread Burgan Soy & Lin Oatbran & Honey™ Tip Top™ EnerGI white bread Sourdough Bread Fruit loaf – dense Corn tortilla Ploughman's Wholemeal Bread™

Helga's Classic Seed Loaf™ White Sourdough Vienna Bread Wholemeal Rye Bread Crumpet White Lebanese bread
Buttercup™ Wonder White
White Bread
Wholemeal
Blackbread (Riga)
Dark Rye Bread
English Muffin

Grains

Pasta- all types (1 cup cooked)
Fresh Rice Noodles
Mung Bean Noodles
Quinoa
Buckwheat
Pearl Barley
Bulgar
Semolina

Rice (1 cup cooked):
Basmati, Arborio (Sunrice brand)
Doongara CleverRice.

Rice Noodles / Vermicelli Gnocchi

Mint Tiny Taters- Canned

Sweet Potato- orange

Couscous Rolled Barley Polenta

New Potatoes

Pita Bread

Jasmine, Sunbrown Quick Calrose & White Instant Doongara Brown rice Waxy (Glutinous rice) Sungold, Pelde Millet

Rice (1 cup cooked):

Tapioca

Bagel

Sweet Potato- purple Potatoes- white New Potatoes Swede Instant Potato

Watermelon (1.5 cups) Lychee (1/2 cup)

Sweet Corn

Sweet Corn Cassava Parsnip Yam Taro Tomato Soup- canned (250ml)

Fruit -

Dried Apricots (6 small)
Apple, Pear, Orange
Custard Apple
Banana (just ripe)
Nectarine (2 small)
Peach (1)
Dates- pitted (3)
Prunes (3)
Kiwi Fruit (2)
Grapefruit (1)
Berries (1 cup)
Grapes-green (1/2 cup)
Plum (2)
Mango (1/2 small)

Carrot juice* (250ml)

Apple, Orange, Cranberry 100%

Prune juice (100ml)

Juice* (120ml)

Papaya/Paw Paw (1/2 small) Cranberries- dried (2 Tbsp) Peach- canned (1/2 cup) Rockmelon (1.5 cups) Pineapple (2 slices) Banana (very ripe) Grapes- red (1/2 cup) Apricots (3) Sultanas (2 Tbsp) Figs- dried (2) Cherries (1 cup) Raisins (2 Tbsp)

Phone: 08 8927 8488 Fax: 08 8927 8515 E: info@ healthylivingnt.org.au

Darwin

Shop 1 & 2 Tiwi Place, Tlwi NT 0810

PO Box 40113,

Casuarina NT 0811

Jock Nelson Centre, 7/16 Hartley Street, Alice Springs NT 0870 Phone: 08 8952 8000 Fax: 08 8952 7000 E: alicesprings@ healthylivingnt.org.au

Alice Springs

www.healthylivingnt.org.au ABN 11 374 693 055

Healthy Living NT is the trading name of the Diabetes Association of the Northern Territory Incorporated.

Slow Release – choose mostly (low Gl < 55)	Medium Release (medium Gl 56 – 69)	Fast Release (high GI > 70)
Legumes All types Chickpeas Red kidney beans Soybeans Baked beans Lentils	Broad Beans	
Dairy Low Fat Yoghurt- plain/flavoured (200g) Ice Cream- low fat (2 scoops) Weis' Frutia™ mango (1 scoop) Mousse Nestle™ diet (50g) Milk- all types So Good™ Trim Custard (100g) Fruche (100g)	Ice Cream- full fat (2 scoops)#	
Cakes & Biscuits SnackRight Fruit Slice/Pillow™ (2) Apple, Blueberry muffin Sara Lee™(1) Freedom Foods Cookies (2) Vita-Weat Original™ (4 small) Plain sponge* (25g)	Shredded Wheatmeal Biscuits ™ (2) Pancakes- Green's shake mix (1) Milk Arrowroot Biscuits*™ (2) Breton Wheat Crackers™ (2) Ryvita Biscuits™ (2) Digestives (2)	Morning Coffee Biscuits*™ (2) Water Crackers™ (4) Rice Cakes™ (3) Kavli™ (5) Corn thins™ (3) Sao™#(3) Pikelets (2-3) Scone (1)
Extras Milo powder (3 tsp) Apricot- filled wholemeal fruit bar Muesli bar- chewy with fruit Honey- ironbark, red gum, stringbark, yellowbox (1 Tbsp) Fruit Jam (1 Tbsp)	Cordial- fruit diluted (250ml) Fruity-bix bar Sanitarium™ Muesli bar- crunchy with fruit Golden Syrup (1 Tbsp) Honey- capilano (1 Tbsp) Maple flavoured syrup (1 tsp)	Gatorade/Powerade (250ml) Jellybeans (7) Snakes (3) Doughnut-uniced # Lamington (1/2) Burger Rings™#(25g) K-time™ breakfast bar Licorice, soft (25g) Popcorn- microwave (20g) Pretzels (25g) Roll-Ups™ Twisties™#(25g)

- Carbohydrate foods become glucose (sugar) in the body.
- Carbohydrate foods that release glucose more slowly are better for blood glucose levels.
- Choose some slow release carbohydrate at each meal and include foods from the medium release column in moderation.
- When eating a fast release food, choose a smaller serve and eat a slow release food with it.

*Low fibre foods- Choose higher fibre foods more often # High fat foods- Choose low fat foods mostly Amounts in brackets indicate some suitable serve sizes

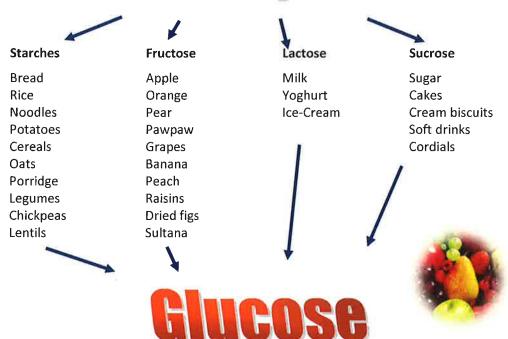


Sources of Carbohydrate Foods

Carbohydrate foods form an essential part of the diet. The body breaks down all carbohydrates (both starches and sugar) into glucose which is used as fuel or energy in the body. Eliminating or avoiding all carbohydrate foods is not the way to manage your diabetes.

Carbohydrate foods are loaded with many other vitamins and minerals. Fruits are excellent suppliers of vitamin C while dairy products provide calcium for strong bones. Wholegrain breads and cereals also provide foliate and fibre for good gut health.

Carbohydrate



Darwin

Shop 1 & 2 Tiwi Place, Tiwi NT 0810 PO Box 40113, Casuarina NT 0811 Phone: 08 8927 8488 Fax: 08 8927 8515 E: info@ healthylivingnt.org.au

Alice Springs

Jock Nelson Centre, 7/16 Hartley Street, Alice Springs NT 0870 Phone: 08 8952 8000 Fax: 08 8952 7000 E: alicesprings@ healthylivingnt.org.au

www.healthylivingnt.org.au ABN 11 374 693 055

Healthy Living NT is the trading name of the Diabetes Association of the Northern Territory Incorporated. Some people think that because carbohydrates cause a rise in the blood glucose level, it should be avoided. This is incorrect. However, some food rich in carbohydrates are high in refined sugars and often high in fat. These foods include cream biscuit, cakes and chocolate. These carbohydrates provide little to the diet except extra calories which can lead to excess body fat and weight gain. These foods should be limited in a healthy diet.

A final point to note; while the challenge is deciding which carbohydrate choices are the better ones, consuming a large amount or portion of any 'good' carbohydrate food can still result in a high blood glucose response. The quantity is just as important as the quality.

Adapted from 'Traffic Light Guide to Food' 1997–Diabetes Education and Assessment Program Royal North Shore Hospital St Leonards NSW Australia



Free Foods

The following foods are low in carbohydrate, fat and protein. They will add bulk to your meals without affecting your blood glucose level. Some of the foods are high in salt and are notated with a •, so where possible select products which are salt reduced / low salt or no added salt varieties.

Vegetables fresh or frozen

Alfalfa Sprouts	Chickory	Okra
Artichoke	Chillies	Olives
Asian Vegetables	Chinese Cabbage	Onion
Asparagus	Chives	Peas
Bamboo Shoots	Choi Sum	Pumpkin
Baby Squash	Choko	Radish
Beans (green)	Cucumber	Shallots
Bitter Melon	Gai Lum	Snow Peas
Bok Choy	Gherkin	Spinach
Broccoli	Kale	Spring Onions
Brussell Sprouts	Kohlrabi	Swede
Cabbage	Leek	Tomato
Capsicum	Marrow	Watercress
Carrots	Mushroom	White Radish
Cauliflower	Marrow	Zucchini





Spices

Stock Cubes®

Tomato Paste

Tomato Puree

Worcestershire Sauce®

Vinegar (all varieties)

Seasonings/Spices and Herbs

Celery

Seasonings/Spices and rierus							
Ginger	Soy Sauce●						
Chilli (powder or fresh)	Herbs (fresh or dried)						
Chilli Sauce	Gravy●						
Chives	Mint						
Curry Powder	Mustard						
Fennel	Pepper						
Garlic	Parsley						



Alice Springs
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Spreads

Fish Paste®

Low Joule/Diet Jam

Marmite™• Promite ™• Vegemite ™•

Fruit

Lemon

Lime

Loquats

Passionfruit

Rhubarb

Strawberries (less than 2 cups)

Mulberries (less than 2 cups)



Juice

Lemon

Lime

Tomato (less than 2 cups)





Beverages

Bonox ™•

Black and Herbal Tea

Coffee

Clear Broths

Cocoa

Low Joule/Diet Cordial Low Joule/Diet Soft Drink Mineral Water (unflavoured) Soda Water



Miscellaneous

Artificial Sweeteners

Chutney

Gelatine

Low Joule/Sugar Free Lollies

Junket Tablets Mayonnaise (no oil) Pickles

Salad Dressing Unprocessed Bran



Adapted from 'Traffic Light Guide to Food' 1997-Diabetes Education and Assessment Program
Royal North Shore Hospital St Leonards NSW Australia

What is a Serve of fruit?

It is recommended that most people eat two (2) serves of fruit each day. Fruit is a good source of vitamin C and folate and can help reduce the risk of chronic disease.

Fruit comes in many shapes and sizes, meaning the serve sizes are different. For some fruits like bananas and apples, one whole fruit is equal to one serve. For larger or smaller fruits like melons, mangos or apricots this is not the case.

Fruit contains the naturally occurring sugars fructose and glucose. These are types of carbohydrates, which our bodies use for energy. Having a serve of fruit as a snack between meals is a great way to incorporate fruit into your diet each day. People who are more active or who have higher energy requirements may have more than two serves of fruit each day.

A serve of fruit equates to:



























Jackfruit Serve: ½ cup Carbohydrate: 14g







Mandarins
Serve: 2 medium
Carbohydrate: 10g















Pear
Serve: 1 medium
Carbohydrate: 12g













Watermelon	
Serve: 1 cup Carbohydrate: 10g	

	FRUIT – Recommended Daily Serving									
	2-3 years 4-8 years 9-11 years 12-13 years 14-18 years 19-50 years 51-70 years 70+ years									
Male	1	1 ½	2	2	2	2	2	2		
Female	1	1 ½	2	2	2	2	2	2		

What is a **Serve** of vegetables?

It is recommended that most people eat five (5) serves of vegetables each day. Vegetables are important because they can help protect us against chronic diseases including heart disease, stroke and some types of cancer.

Vegetables are:

- high in fibre, improving gut health and increasing the feeling of fullness
- ✓ low in energy (kilojoules) assisting weight management
- high in vitamins and minerals to keep our immune system strong

Some vegetables contain starch. This is a type of carbohydrate, which our bodies use for energy. Starchy vegetables include legumes, corn, potato and sweet potato, taro and cassava.

Non-starchy vegetables are low in carbohydrate, having minimal effect on our blood glucose levels.

A serve of the vegetables group equates to:

Non-starchy vegetables (contain 3 grams or less carbohydrate per serve)

Cabbage

Serve: 1 cup raw



Celery

Serve: 1 cup raw



Cucumber

Serve: 1 cup raw



Lettuce

Serve: 1 cup raw



Spinach

Serve: 1 cup raw



Tomato

Serve: 1 medium raw



Bok-choy

Serve: 1/2 cup cooked



Broccoli

Serve: ½ cup cooked



Capsicum

Serve: 1/2 cup cooked



Cauliflower

Serve: ½ cup cooked



Green beans

Serve: ½ cup cooked



Zucchini

Serve: ½ cup cooked



ni-starchy vegetables (contain 4-8 grams

(contain more than 10 grams

Beetroot

Serve: ½ cup cooked



Carrot

Serve: ½ cup cooked



Onion

Serve: ½ cup cooked



Parsnip

Serve: 1/2 cup cooked



Peas

Serve: 1/2 cup cooked



Pumpkin

Serve: 1/2 cup cooked



Chickpeas

Serve: 1/2 cup canned



Kidney beans

Serve: 1/2 cup canned



Lentils

Serve: ½ cup cooked



Cassava

Serve: 1/2 cup cooked



Potato

Serve: 1 medium cooked



Sweet corn kernels

Serve: ½ cup canned



Sweet potato

Serve: ½ cup cooked



VEGETABLES - Recommended Daily Serving										
2-3 years 4-8 years 9-11 years 12-13 years 14-18 years 19-50 years 51-70 years 70+ ye							70+ years			
Male	2 ½	4 ½	5	5 ½	5 ½	6	5 ½	5		
Female	2 ½	4 ½	5	5	5	5	5	5		

What is a Serve of grains?

The grains food group includes breads, cereals, grains such as rice and quinoa, and other grain products such as pasta, noodles and crackers. To ensure you are getting the health benefits from consuming these foods, it is best to choose the wholegrain option.

Whole grain breads and cereals are made up of all three grain layers (bran, germ and endosperm) and provide our bodies with:

- ✓ fibre, to prevent constipation and keep us full
- carbohydrate, to give our bodies energy
- ✓ B group vitamins such as thiamin

Refined grain products have had the bran and germ layers removed. They are often used by food manufacturers to make processed foods such as sugary cereals, cakes and biscuits. These foods are low in fibre, vitamins and minerals. Therefore they are regarded as discretionary foods and are not included in the grains category.

A serve of the grains group equates to:







2/3 CUP Flake cereal



1/4 CUP
Muesli or oats



1 slice
Bread OR
1/2 Bread roll





	GRAINS - Recommended Daily Serving								
	2-3 years 4-8 years 9-11 years 12-13 years 14-18 years 19-50 years 51-70 years 70+ years								
Male	4	4	5	6	7	6	6	4 ½	
Female	4	4	4	5	7	6	4	3	

What is a **Serve** of discretionary food?

Your partner in heart

The discretionary food group includes foods and beverages high in energy (kilojoules), added sugar and salt, saturated fat and or alcohol. It is recommended that these foods are enjoyed only sometimes and in small amounts.

Discretionary foods are high in energy, low in nutrients and lack fibre, meaning you may be left feeling hungry or need to consume a larger serve to be satisfied. If eaten in large amounts, discretionary foods can increase our risk of obesity and chronic conditions such as cardiovascular disease, type 2 diabetes and some forms of cancer.

A serve of the discretionary food group is approximately 600 kilojoules, which equates to:































10-12 small Salty crackers



2 slices (50-60g) **Processed meats** (salami, fritz)*



What is a **Serve** of meat?

The meat food group includes lean meat, poultry, fish, eggs, tofu, nuts and seeds and legumes (beans). It is recommended to trim all meats and remove poultry skin to limit saturated fat intake.

These foods are essential as they provide our bodies with many important nutrients such as protein for our muscles. They also supply us with a source of iron, zinc and vitamin B12. Nuts and seeds provide our bodies with essential fatty acids and vitamin E. Fish and seafood are high in omega 3 polyunsaturated fatty acids, in particular herring, sardines and salmon.

Processed meat such as bacon, sausages and salami are high in salt and saturated fat. Therefore they are regarded as discretionary foods and are not included in the meat category.

A serve of this food group equates to:

65g Cooked lean meat such

as beef, lamb, veal, pork, goat or kangaroo (approx 90-100g raw)



80g Cooked lean poultry such as skinless chicken or turkey (approx 100g raw)



100g
Cooked fish
(tinned, fresh
or frozen)*







Cooked or canned legumes (beans) such as lentils, chickpeas or split peas



Nuts, seeds, peanut butter, tahini or other nut or seed paste (no added sugar or salt)

MEAT - Recommended Daily Serving											
	2-3 years	4-8 years	9-11 years	12-13 years	14-18 years	19-50 years	51-70 years	70+ years			
Male	1	1 ½	2 ½	2 ½	2 ½	3	2 ½	2 ½			
Female	1	1 ½	2 ½	2 ½	2 ½	2 ½	2	2			

Serve sizes based on the Australian Dietary Guidelines.

- Raw or smoked seafood and ready-to-eat cooked prawns should be avoided in pregnancy.
- ** Eggs need to be fully cooked (not runny) in pregnancy.

What is a Serve of dairy?

The dairy food group includes milk, yoghurt, cheese and calcium fortified alternatives. It is recommended to choose reduced fat options for most people over two years of age to limit saturated fat intake.

Studies have found that consuming dairy foods:

- may help lower your risk of high blood pressure, heart disease, stroke, type 2 diabetes and some cancers
- provides a good source of calcium, assisting bone density

 gives us other nutrients including protein, iodine, riboflavin and vitamin B12 Plain milk and yoghurt contain the naturally occurring sugar lactose. This is a type of carbohydrate, which our bodies use for energy. Cheese is naturally low in lactose, so does not contain significant carbohydrate. Butter, cream and ice cream are high in saturated fat and sugar, and low in protein and calcium. Therefore they are regarded as discretionary foods and are not included in the dairy food group.

A serve of this food group equates to:

1 CUP (250mL) Milk

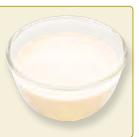
(fresh, UHT long-life, reconstituted powdered milk)



1 CUP (250mL Calcium fortified plant-based milk (soy, rice, oat or almond)



1/2 CUP (125mL)
Unsweetened
evaporated milk



3/4 **CUP** (200g) Yoghurt



½ CUP (120g)
Soft cheese*



2 slices (40g) Hard cheese



DAIRY - Recommended Daily Serving												
	2-3 years	4-8 years	9-11 years	12-13 years	14-18 years	19-50 years	51-70 years	70+ years				
Male	1 ½	2	2 ½	3 ½	3 ½	2 ½	2 ½	3 ½				
Female	1 ½	1 ½	3	3 ½	3 ½	2 ½	4	4				

Serve sizes based on the Australian Dietary Guidelines.

^{*} Soft, semi-soft and surface ripened cheeses should be avoided in pregnancy i.e. brie, camembert, blue cheese, fresh or cold ricotta and fetta.