A Practical Guide to Pre-Diabetes in Canberra

Find out how people with Pre-Diabetes can prevent or delay the onset of Type 2 Diabetes
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Purpose of the Booklet

This booklet is intended to help people in Canberra ACT, who have a diagnosis of pre-diabetes (either Impaired Fasting Glucose or Impaired Glucose Tolerance), to improve their health by modifying their lifestyle. Practical advice is given on how to make these changes.

People at certain stages of life or those who have other serious medical conditions should see a doctor or dietitian for more personalised education.

This is especially important for:

- People with medical conditions that have special dietary requirements, such as those with renal disease, cancer, food allergies, food intolerance or coeliac disease
- Children
- Pregnant women
- People who have difficulty losing weight
- People who have difficulty gaining weight.

Pre-diabetes is a condition that needs long term follow-up with your doctor.

This ensures that:

- Diabetes, if it subsequently develops, is not overlooked
- Conditions often associated with pre-diabetes such as high cholesterol and blood pressure are appropriately managed.

Does that mean I am going to get type 2 diabetes?

If left untreated, pre-diabetes can progress to type 2 diabetes (T2DM). Lifestyle changes may delay or prevent the development of type 2 diabetes.
**Understanding Pre-Diabetes**

**What is pre-diabetes? How is it different from diabetes?**

Pre-diabetes is a condition in which blood glucose levels (also known as blood sugar levels) are higher than normal, but not high enough to be diagnosed as diabetes. Pre-diabetes is diagnosed with a blood test. There are two main types of pre-diabetes, Impaired Fasting Glucose (IFG) and Impaired Glucose Tolerance (IGT). A person with pre-diabetes may have either or both of these conditions.

**Pre-Diabetes Diagnostic Criteria**

<table>
<thead>
<tr>
<th></th>
<th><strong>Fasting blood glucose level</strong></th>
<th><strong>2 hours post Oral Glucose Tolerance Test (OGTT)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Impaired Fasting Glucose</td>
<td>6.1-6.9mmol/L</td>
<td>Less than 7.8mmol/L</td>
</tr>
<tr>
<td>Impaired Glucose Tolerance</td>
<td>Less than 7.0mmol/L</td>
<td>7.8-11.00mmol/L</td>
</tr>
</tbody>
</table>

(For further clarification see your GP and read the Diabetes Australia Pre-Diabetes fact sheet).

**What are the signs and symptoms of type 2 diabetes?**

- Being more thirsty than usual
- Going to the toilet more often, especially at night
- Feeling tired and lethargic
- Blurred Vision
- Having cuts that heal slowly
- Weight changes
- Headaches
- Pain or tingling in the legs or feet.

In type 2 diabetes, many people may have no obvious symptoms. Sometimes symptoms can go unnoticed because they are seen as a part of ‘getting older’.
Understanding Pre-Diabetes

What can happen if I ignore pre-diabetes?

Ignoring pre-diabetes can increase your risk of developing type 2 diabetes and cardiovascular disease.

High blood glucose levels can lead to an increased risk of:

- Heart Attack & Stroke
- Kidney damage
- Vision loss
- Nerve damage
- Poor blood circulation
- Amputations of lower limbs
- Increased risk of infections
- Poor healing wounds.

* Such as polycystic ovarian syndrome, high blood pressure, cardiovascular disease, or high blood lipid (cholesterol and/or triglyceride) levels.

† Aboriginal, Torres Straight Islander, Middle Eastern, Asian, South Asian (Indian), Pacific Islander or North African origin.
**Understanding Pre-Diabetes**

**Is there any treatment for pre-diabetes?**

The majority of people with pre-diabetes will be able to prevent or delay the onset of diabetes through healthy lifestyle changes such as physical activity, healthy eating and reducing stress levels.

Remember that changing lifestyle is not something that you do for a couple of weeks or months, it needs to be for life.

**How can I control my pre-diabetes?**

The following pages explore these aspects of a healthy lifestyle in more detail.
Making Lifestyle Changes

First of all, it is important to pick something YOU are interested in or keen to change and do this first.

For example:

- Manage my stress
- Eat Healthy
- Quit smoking
- Lose some weight
- Regular physical activity
- ?

When you feel like you have accomplished your first goal, set a new goal to improve another area of your lifestyle.

**You don’t have to make changes all at once!**

Lapses occur when people find it difficult to maintain changes, but it should not be a reason to give up on your goal. Lapses happen because the *strategies* or plan you used to achieve your goal may no longer work for you. It is important to remember:

**You did not fail, the strategy failed.**

To achieve your goal after a lapse, you will need to use different strategies.
How much physical activity should I do?

Aim for at least 30 minutes of moderate intensity exercise each day of the week. This could be:

- Shorter sessions: 10 minutes, 3 times per day
- Longer sessions: 30 minutes (or more)/day, every day of the week

How do I know if I am working at moderate intensity?

- Your heart beats faster
- Your body will feel warmer and you may sweat lightly
- You can still talk but not sing

Just moving more than you did before can be a good start!
Enjoying Physical Activity

Walking is not the only option to be more active. Find something you enjoy doing, such as:

- Dancing — pick from many different styles such as Zumba, line dancing, salsa, ballroom dancing, swing, jazzercise etc
- Squash, tennis, netball, touch and other individual or team sports
- Swimming or walking in water
- Aerobics classes
- Personal training
- Doing your own program at the gym
- Gardening
- Using work breaks to go up and down stairs
- Tai Chi
- Chair walking (this involves moving your feet and hands in the motions as if you are going for a walk, while still in your seat)
- Creating a workout regime using items in your home, such as a tin of baked beans for weights
- Placing ankle or wrist weights on while doing household chores
- Walking or cycling can be a great mode of transport.

**SAFETY:** It is important to ease yourself into physical activity and to discuss your physical activity plans with your doctor, or other qualified allied health professional (for example, Exercise Physiologist or Physiotherapist), especially if you have not done these activities recently.

If you already exercise regularly, add in resistance or strength training twice per week. This can be body weight exercises (squats, lunges and push ups) or tasks that involve lifting, carrying or digging in the garden. You can also try doing weights at the gym. Ask for help from a qualified professional if you are unsure.
Physical Activity Motivation

Even though regular physical activity is important in pre-diabetes, it can be difficult to stay motivated.

Your fitness routine is not a program with a beginning and an end. Results come from consistency — what you do most of the time.

If you skip a physical activity session, you could:

- Add an extra session next week or on the weekend
- Increase your level of incidental activity
  — This is the movement you do throughout your everyday life e.g. hanging out the clothes, vacuuming, cleaning, pottering in the garden.

Does cold or wet weather stop you from being physically active?

- Join a gym, try new classes, or get involved in a winter sport.
- Try a home circuit using chairs, steps, benches, the floor, your own body weight and home made dumbbells (canned soup or water bottles filled with sand).
- Play a DVD in your lounge room e.g. Pilates, Tai Chi, Zumba, or Heart Moves.

Are you too busy to be physically active?

- Try accumulating short bouts of physical activity throughout the day.
- Look at ways to incorporate physical activity into your busy day e.g. taking the stairs or parking your car further away and walking.
- Try planning physical activity in advance and recording it as important appointments in your diary.
- Worksafe ACT encourages everyone to get up from their desk and move around at least once every 30 minutes.
Physical Activity Motivation

Does being physically active seem too difficult?

• Start with small achievable goals to build your confidence, and give yourself plenty of time to achieve your ultimate goal.
• Reward yourself for achieving your goals. For example treat yourself to a massage.
• Exercise with a friend, it makes it more fun and harder to cancel when you know someone is counting on you.

Do you procrastinate to avoid physical activity?

• The more you think about it, the less likely you are going to do it. We suggest you just put on your joggers and get out the door.
• The hardest part can be the beginning of a workout; give yourself permission to stop after 10 minutes if you still don’t feel like being active. (You will probably find that you’ll want to keep going!)

Do you give others, such as family, priority instead of taking the time to exercise?

• If you don’t take care of yourself, eventually you won’t be able to take care of other priorities in your life such as work or family.
• Ask for the support of people around you so they understand the importance of you making time for physical activity.
• Think of ways you can incorporate physical activity with your children or other family members i.e. kicking a ball around, going for a power walk with the pram etc.
Physical Activity Motivation

Take the time to think about the following questions:

Is physical activity important to me and **why**?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

**What** types of physical activity do I want to do?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

**Where** would I do these activities?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

**When** can I be active?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

**Who** can I be active with?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Canberra has many opportunities and programs available to help people get active. To get you started, the following pages have contact details for various walking groups, cycling clubs and other community programs in Canberra. Alternatively, you may know other places where you feel more comfortable. Also, some workplaces and health funds offer gym discounts. Enquire for yourself to see if you are eligible.

## Walks and walking groups in Canberra

<table>
<thead>
<tr>
<th>Walks and clubs</th>
<th>Contact details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Canberra Exercise Walks</strong></td>
<td>Contact Bob Eagers&lt;br&gt;02 62 551 398&lt;br&gt;Email: <a href="mailto:eagers@iinet.net.au">eagers@iinet.net.au</a></td>
</tr>
<tr>
<td><strong>Heart Foundation Walks</strong></td>
<td>1300 362 787&lt;br&gt;www.heartfoundation.org.au/sites/walking</td>
</tr>
<tr>
<td><strong>Canberra Bushwalking Club</strong></td>
<td>Gary Trevean 02 6285 1135&lt;br&gt;www.canberrabushwalkingclub.org</td>
</tr>
<tr>
<td><strong>Canberra Meet Up Walking Group</strong></td>
<td><a href="http://walkers.meetup.com/cities/au/canberra">http://walkers.meetup.com/cities/au/canberra</a></td>
</tr>
<tr>
<td><strong>Map My Walk</strong></td>
<td><a href="http://www.mapmywalk.com/find-walk/australia/canberra">www.mapmywalk.com/find-walk/australia/canberra</a></td>
</tr>
</tbody>
</table>

## Cycling Clubs in Canberra—various locations

<table>
<thead>
<tr>
<th>Cycling clubs</th>
<th>Contact details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pedal Power</strong></td>
<td>02 6248 7995&lt;br&gt;www.pedalpower.org.au</td>
</tr>
<tr>
<td><strong>Females in Training (FIT)</strong></td>
<td>Enquiries: <a href="mailto:enquiries@fitact.org.au">enquiries@fitact.org.au</a>&lt;br&gt;www.fitact.org.au</td>
</tr>
<tr>
<td><strong>Vikings Cycling Club</strong></td>
<td>Enquiries: <a href="mailto:novice@vikingscycling.org.au">novice@vikingscycling.org.au</a>&lt;br&gt;www.vikingscycling.org.au</td>
</tr>
<tr>
<td><strong>Canberra Cycling Club</strong></td>
<td><a href="http://www.canberracyclingclub.org.au">www.canberracyclingclub.org.au</a></td>
</tr>
</tbody>
</table>

These clubs offer a range of programs for all levels of ability, including novices.
<table>
<thead>
<tr>
<th>Community Programs in Canberra</th>
</tr>
</thead>
</table>
| **ACT-GOLD! (Growing Older and Living Dangerously)**  
This program offers a variety of free or reduced cost activities for ACT residents 50 years of age or over.  
Phone: 02 6126 4700  
| **Belconnen Community Centre**  
Offers a range of fitness classes as well as specialty classes such as “Healthy Mind, Healthy Body” – for people living with a mental illness and “Fitness and Fun” – for women over 50.  
Phone: 02 6264 0232  
Website: [www.bcsact.com.au](http://www.bcsact.com.au) |
| **Arthritis ACT**  
Offers warm water exercise programs.  
Phone: 02 6288 4244  
| **Heart Foundation**  
Offer “Heartmoves” which is a gentle physical activity program suitable for anyone who hasn’t done any exercise in a while. You can exercise at your own pace in a friendly atmosphere, as well as those with stable long term conditions.  
Visit the website to view the numerous sites around Canberra and Queanbeyan that offer this program.  
Website: [http://heartmoves.heartfoundation.org.au/](http://heartmoves.heartfoundation.org.au/) |
| **YMCA (Chifley)**  
02 6249 8733  
[www.canberra.ymca.org.au](http://www.canberra.ymca.org.au)  
This gym holds a number of specialty programs to suit people of all ages and abilities. For example “PrYme Movers” for older people and “Men with Guts” which is an all male group. |
Smoking

It is very important for people with pre-diabetes to stop smoking. This is because you are at high risk of heart disease, and smoking further increases that risk.

Apart from heart disease, smokers also risk death or serious illness from cancer, stroke, emphysema and other respiratory diseases. Smoking also causes blindness, dental problems, osteoporosis, erectile dysfunction, and reduced fertility in women.

**Stopping smoking at any age can significantly improve health**

If you are considering quitting smoking, we recommend you contact one of these programs for extra support:

- Call Quitline on 131 848 or visit the Quitline website [www.quitnow.info.au](http://www.quitnow.info.au)
- Talk to your doctor or chemist about other options
- Call Get Healthy Information and Coaching Service on 1300 806 258 or visit [www.gethealthy.act.gov.au](http://www.gethealthy.act.gov.au)

**Stop smoking for 6 months and you are less likely to start again!**

**Stop smoking for 2 years and you have a 96% chance of never smoking again!**

**Source:** Smoking Cessation Guidelines for Australian General Practice, practice handbook 2004 ed.
Are you Ready to Give Up Smoking?

Have you ever considered the positives and negatives of smoking versus not smoking? This decision matrix may be of some help. You can write your answers in the boxes below.

<table>
<thead>
<tr>
<th>Positives of NOT smoking</th>
<th>Positives of smoking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Negatives of NOT smoking</th>
<th>Negatives of smoking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Healthy Eating

Why healthy eating is important

Ensures adequate intake of vitamins & minerals

Helps control blood glucose levels

Helps control blood fats & blood pressure

Helps prevent weight gain

An overall feeling of wellness and wellbeing

What is a healthy diet?

- Enjoying a wide variety of foods that include a wide variety of colours.
- Eating plenty of wholegrain cereals, vegetables, legumes and fruits.
- Including low-fat milks, yoghurts, custards, cheeses and/or alternatives.
- Including lean meat, fish, poultry and/or alternatives.
- Eating regular meals throughout the day. Irregular meals can lead to overeating at a single meal, or snacking on inappropriate foods.
- Limiting added sugar, honey, syrup and foods that are high in these ingredients e.g. soft drink.
- Limiting highly refined and fatty foods E.g. chocolates, cakes, biscuits, fried foods or foods with pastry.
- Not adding salt to cooking or at the table.
- Limiting alcohol intake (if you choose to drink).
Australian Guide to Healthy Eating

Enjoy a wide variety of nutritious foods from these five food groups every day.
Drink plenty of water.

- **Grain (cereal) foods**, mostly wholegrain and/or high cereal fibre varieties
- **Lean meats and poultry, fish, eggs, tofu, nuts and seeds and legumes/beans**
- **Milk, yoghurt, cheese and/or alternatives, mostly reduced fat**
- **Fruit**
- **Vegetables and legumes/beans**

Reference: National Health and Medical Research Council 2013
The Australian Guide to Healthy Eating recommends eating **each day**:

### 4-6 Serves of Breads & Cereals

1 serve =
- ½ cup cooked porridge, ⅔ cup breakfast cereal flakes,
- ¼ cup muesli,
- ½ cup cooked rice
- ½ cup cooked pasta,
- 1 slice bread.

### 5-6 Serves of Vegetables

1 serve =
- 1 cup of salad,
- ½ cup cooked vegetables.
(Aim for lots of different colours.)

### 2-3 Serves of Meat/Alternative

1 serve =
- 65g cooked red meat, or 80g cooked poultry,
- 1 cup cooked legumes,
- 100g cooked fish,
- 2 eggs,
- 170g Tofu,
- 30g nuts or seeds.

### 2 Serves of Fruit

1 serve =
- 1 small banana,
- 1 medium apple,
- 1 cup fruit salad (or canned in natural juice),
- 2 small fruits e.g. apricots,
- 1.5 Tbsp sultanas.

### 2 ½-4 Serves of Dairy Products

1 serve =
- 1 cup of milk,
- 40 g (2 slices) hard cheese,
- 200g tub of yoghurt.
(Always choose low fat or skim products.)

### 0-2 Serves of ‘Extras’ *

1 serve =
- 1 doughnut,
- 30g potato chips, or 3 biscuits,
- 1 medium piece of cake,
- 2 scoops ice-cream,
- ½ small chocolate bar,
- 1 standard drink of alcohol.

* Extras are ‘sometimes’ foods

Extra foods contain lots of energy (from sugar and/or fat) and salt. Choosing ‘extras’ foods in small amounts occasionally can help to avoid unwanted weight gain or raised blood glucose and cholesterol levels. However, they are not necessary in your every day eating pattern.
Carbohydrates

What is a carbohydrate?
Carbohydrates are your body’s preferred source of energy. When you eat foods containing carbohydrates, they get broken down into glucose (sugar) which is then absorbed into your blood. The glucose moves from the blood to cells where it fuels the body.

Why do we need carbohydrates?
- Carbohydrates are the preferred source of fuel for your whole body.
- Most carbohydrate-rich foods are also good sources of vitamins (particularly B-vitamins and folate), minerals (including iron and zinc), as well as fibre.
- They can help you feel full.
- They are important for managing blood glucose levels.
Carbohydrates

What type of carbohydrate should I be eating?

The best sources of carbohydrate to consume include:

• Wholegrain foods such as multigrain bread and rolls, wholemeal pasta and rolled oats
• Fresh, tinned or dried fruit
• Starchy vegetables such as corn, sweet potato, potato or taro
• Legumes such as baked beans, kidney beans, chick peas and lentils (canned varieties are available and can be easier alternatives)
• Low-fat dairy products such as milk and no-added sugar yoghurt.

Some snack foods are high in added sugar and/or fat, these foods should only be enjoyed occasionally in small amounts, for example:

• Sweet biscuits and crackers
• Potato crisps
• Chocolate
• Muffins, cakes, pastries, pies.

The following high sugar foods should be avoided as they can cause unwanted weight gain and high blood glucose levels.

If desired, it is safe to use alternative sweeteners in place of sugar.

• Soft drinks (diet or sugar-free soft drinks are available)
• Cordial (low joule cordial is available)
• Lollies and gum
• Ice blocks and ice cream
• Fruit juice (best to avoid or limit to 1/2 cup per day)
• Jelly (diet jelly is available)
• Sugar (small amounts of sugar can be included as part of a healthy balanced diet).
The Glycemic Index

The Glycemic Index (GI) is a rating of how quickly different carbohydrate foods are broken down in your body. People with pre diabetes are encouraged to choose low Glycemic Index (low GI) foods. Low GI foods break down slowly into glucose, which causes a smaller rise in your blood glucose levels.

The graph in Figure 1 illustrates the peak rise in blood glucose level when eating low GI pasta, compared to eating high GI potato.

Figure 1: Blood glucose response of reference and test food over 2 hours

Differences between low GI and high GI foods are summarised below:

<table>
<thead>
<tr>
<th>Low GI foods</th>
<th>High GI Foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Break down slowly</td>
<td>• Break down quickly</td>
</tr>
<tr>
<td>• Increase blood glucose slowly</td>
<td>• Increase blood glucose quickly</td>
</tr>
<tr>
<td>• Better choice for pre-diabetes</td>
<td>• Limit eating in pre-diabetes</td>
</tr>
</tbody>
</table>
The Glycemic Index

The GI must be tested in a laboratory; it cannot be predicted from the ingredients list, nutrient table, or the fibre or sugar content of a food. The table below lists some examples of low and high GI foods:

<table>
<thead>
<tr>
<th>Low GI foods</th>
<th>High GI foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Muesli, Rolled Oats, Sustain®, Special K®, All-Bran®, Guardian®.</td>
<td>Rice Bubbles®, Instant Porridge, Cornflakes®, Coco Pops®.</td>
</tr>
<tr>
<td>Dense grainy bread, Rye bread, Genuine sourdough, Fruit loaf, Corn tortilla.</td>
<td>White and Wholemeal bread, Turkish and Lebanese bread.</td>
</tr>
<tr>
<td>Sweet corn, Parsnip, Taro, Yam.</td>
<td>White potato.</td>
</tr>
<tr>
<td>Apple, Banana, Kiwi fruit, Grapes, Mango, Orange, Peaches, Pears, Plums.</td>
<td>Watermelon.</td>
</tr>
<tr>
<td>Dairy products including milk, yoghurt, custard</td>
<td></td>
</tr>
</tbody>
</table>

Although it is not compulsory to include the GI on food labels, you may see the low GI symbol (pictured to the right) on some food packaging.

Food displaying the low GI symbol has been tested to verify it is low GI. However, other foods that have not been tested may also be low GI.

Benefits of low GI foods

In pre-diabetes, low GI foods help to keep blood glucose levels stable, allow you to feel fuller for longer, may help reduce blood fats, and assist with weight control and sports endurance.
**Fats**

**Are fats important in pre-diabetes?**

It is important to consider the types of fats we eat. The table below summaries the ‘good’ and ‘bad’ fats and their food sources.

In general, fats contain a lot of energy, if you don’t burn off this energy unwanted weight gain can occur over time. People with pre-diabetes already have higher than normal blood glucose levels, and gaining weight can make this problem worse. Some fats can also raise your blood cholesterol levels and contribute to heart disease.

<table>
<thead>
<tr>
<th>Mono &amp; Poly unsaturated fat 🤗</th>
<th>Saturated &amp; Trans fat 😞</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Protect against heart disease</td>
<td>• Raise bad cholesterol levels</td>
</tr>
<tr>
<td>• Mainly found in plant foods</td>
<td>• Mainly found in animal foods</td>
</tr>
<tr>
<td>• <em>Examples:</em> avocado, nuts (e.g. walnuts), seeds (e.g. linseeds, flaxseeds and CHIA), vegetable oils and spreads, fish, olives, peanut butter, wheat germ, soy products.</td>
<td>• <em>Examples:</em> Butter, cream, full fat dairy products, fatty meats, chicken skin, copha, lard, ghee, palm oil, coconut milk/ cream, commercial pies, pastries, cakes, biscuits, buns.</td>
</tr>
</tbody>
</table>

**How much fat, and what type should I eat?**

- Limit saturated and trans fats as much as possible.
- Choose monounsaturated and polyunsaturated fats for cooking, but only in small amounts.
- If you need to lose weight, limit nuts to 30g per day (e.g. 20 almonds), limit avocado to a quarter per day, thinly spread peanut butter, and where possible use spray oil in cooking.
- To get enough omega 3 fats, aim to eat oily fish 2-3 times per week. For example; Salmon, Mackerel, Tuna, Rainbow Trout, Sardines, Barramundi, Silver Perch, and some frozen fish fillets.
- Up to 6 eggs per week is acceptable.
Healthy Meal Plan

Spread your food out over the day. Small meals plus snacks is generally recommended. This places less stress on the body at each meal time and allows your blood glucose levels to remain steady throughout the day. You will find a healthy snacks list on page 27.

Organisation is the key to a healthy meal plan

Some people find it difficult to create healthy meals 3 times a day every day of the week.

Here are some hints on how to make it work:

- Find some healthy recipes you would like to cook, you may use a couple of the same recipes from week to week
- We recommend planning 5 evening meals per week (this leaves room for a bit of spontaneity)
- Plan easier and quick meals for nights when you are busier
- Write a shopping list, most people find the weekend the most convenient time to do this. You will need to consider:
  - Breakfast ingredients you need
  - Lunch ingredients (buy extra vegetables such as green beans, snow peas or frozen vegetables to add to leftovers)
  - Recipe ingredients (for the evening meal)
  - At least 2 snacks per day, per person (see snacks list for your preferred options)
  - Check your pantry to make sure you don’t already have some of the ingredients
- Go for a larger shop so everything is ready in the fridge when you want to cook the meal or prepare your lunch.

Breakfast suggestions:

- 2 weetbix + 1 cup low fat milk + 1 tablespoon sultanas
- ½ cup muesli + small tub low fat or natural yoghurt
- 1/3 cup traditional rolled oats cooked in 1 cup low fat milk + berries
- ½ cup special K + 1 small banana + 1 cup milk
- 1 slice multigrain/rye or sourdough toast + ½ cup baked beans + 1 piece fruit
- 2 slices Burgen Fruit and Muesli toast topped with low fat ricotta
- 2 slices multigrain/rye or sourdough toast + 1 poached/boiled egg + small tub low fat or natural yoghurt mixed with nuts and berries.
### Healthy Meal Plan

**Lunch and dinner suggestions:**

A quarter of your plate/lunchbox at each main meal should include a source of carbohydrate.

For example: approximately 2 slices multi-grain bread or 1 cup of cooked pasta or 1 cup cooked rice or 1 cup sweet potato or 1 cup legumes (baked beans, lentils, kidney beans etc.) or 1 whole cob corn (16-20cm long).

A quarter of your plate at each main meal should include a source of lean protein.

For example: lean red meat, oily fish, skinless chicken, eggs or legumes.

**Non-starchy vegetables should take up half of the plate.** These are any vegetable other than potatoes (of any kind), corn, taro/yam, parsnip or pulses and legumes.

### Are you drinking enough fluids?

Staying well-hydrated is important. Aim for 6-8 glasses of water daily, which is approximately 2 litres.
### How to make healthier meals

<table>
<thead>
<tr>
<th><strong>Instead of...</strong></th>
<th><strong>Choose these healthier alternatives</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>2 cups pasta with creamy sauce and ½ cup vegetables</td>
<td>1 cup pasta, 2 cups grated (boiled) “zucchini pasta” with 100g lean mince for bolognese sauce</td>
</tr>
<tr>
<td>2 cups cooked jasmine rice, 200g chicken and 1 cup stir-fry vegetables</td>
<td>1 cup cooked basmati rice, 100g chicken breast and 2 cups stir-fry vegetables</td>
</tr>
<tr>
<td>300g steak, 2 cup wedges and 1 cup steamed vegetables</td>
<td>150g steak, 1 medium sweet potato and 2 cups steamed vegetables</td>
</tr>
<tr>
<td>2 white bread peanut butter sandwiches</td>
<td>1 wholegrain salad sandwich (optional small amount of low fat dressing) and 1 cup fruit salad</td>
</tr>
</tbody>
</table>
Snacks

If you are getting hungry choose 1 option from the list of snack ideas at each morning tea, afternoon tea and/or supper. People that are more physically active may require 2 options from the list. Remember that salad vegetables, such as celery, carrot, capsicum, have very little energy and therefore can be eaten in plentiful amounts.

**Snack Ideas:**

- 1 piece fruit e.g. 1 peach or 3 apricots, or 1 pear or 2 mandarins or handful of grapes or ½ mango or ½ large banana
- 1 small tub of low fat or diet yoghurt
- 1 cup low fat custard
- 1 glass low fat or skim milk
- 1 slice raisin toast or multigrain bread *
- 1 round crumpet *
- 4 Vita-Weat or 2 Ryvita crisp breads *
- 1 cup plain (non-buttered) popcorn
- 1 mini can baked beans (120 g)
- 2 Shredded Wheatmeal biscuits
- 30 g nuts
- 1 small scone.

* Topping ideas include: salad vegetables such as lettuce and tomato, low fat cheese particularly cottage or ricotta cheese, low fat cream cheese spread, low fat tomato salsa dip, thinly spread peanut butter, thinly spread jam.
**Reading a Nutrition Information Panel**

It is important to read the nutrition information panel (NIP) on the side of food packages to be sure you are choosing the healthiest option.

A NIP is mandatory on most food packages. Nutrients that must be listed are energy, protein, total fat, saturated fat, carbohydrates (total), sugars and sodium. Information is given both per serving and per 100g. The serving size may vary between similar products as it is set by each manufacturer and may differ from what you actually consume.

The table below identifies the nutrients we should aim to limit in order to choose the healthiest option.

### Breakfast Cereal

<table>
<thead>
<tr>
<th>NUTRITION INFORMATION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Servings per package: 12</td>
<td></td>
</tr>
<tr>
<td>Serving size: 45g (¾cup)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quantity Per Serving</th>
<th>Quantity Per 100g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy 710kJ</td>
<td>1570kJ</td>
</tr>
<tr>
<td>Protein 4.0g</td>
<td>8.9g</td>
</tr>
<tr>
<td>Fat, total 1.3g</td>
<td>2.8g</td>
</tr>
<tr>
<td>-saturated 0.2g</td>
<td>0.5g</td>
</tr>
<tr>
<td>Carbohydrate, total</td>
<td></td>
</tr>
<tr>
<td>- sugars 9.2g</td>
<td>20.4g</td>
</tr>
<tr>
<td>Dietary Fibre 2.9g</td>
<td>6.4g</td>
</tr>
<tr>
<td>Sodium 44mg</td>
<td>97mg</td>
</tr>
</tbody>
</table>

**Ingredients:** Wholegrain cereals (53%) (whole wheat, brown rice, rolled oats), corn (16%), fruit (13%) (sultanas, currants, dried apple), sugar, barley, malt extract, sliced almonds (2%), wheatgerm, invert sugar syrup, salt, vitamins (vitamin C, niacin, thiamine, vitamin b6, riboflavin, folate), mineral (iron), preservative (220).

**Fibre**
- Aim for 30g per day or ≥3g per serve

**Sodium**
- Low salt ≤400mg/100g

**Total Fat**
- Aim for less than 10g per 100g

**Saturated Fat**
- Aim for less than 3g per 100g or the lowest possible

**Sugars**
- Aim for 15g per 100g or less

**Ingredients List**
- Food are listed in descending order based on weight. If fat, salt or sugar are listed near the start (e.g. in the first 3 ingredients) of the list, the product contains greater proportions of these ingredients.

**Additives**
- These have multiple purposes including food preservation. All food additives must be used in the lowest possible quantity to achieve their purpose. Additives are listed by their functional name and their specific name or code number eg: a preservative (220) has been used in this cereal.
Alcohol

Alcohol is a drink many people enjoy. Australian guidelines recommend a maximum of 2 standard drinks per day and 2 alcohol free days per week. Exceeding this recommendation can lead to unwanted weight gain, liver damage, raised blood triglycerides and impaired judgement.

Each daily allowance CANNOT be saved up for one day of the week as binge drinking puts your body under a lot of stress.

### Standard drinks

<table>
<thead>
<tr>
<th></th>
<th>Volume</th>
<th>Alcohol Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPARKLING WINE</strong></td>
<td>100 mL</td>
<td>13% alc/vol</td>
</tr>
<tr>
<td><strong>WINE</strong></td>
<td>100 mL</td>
<td>13% alc/vol</td>
</tr>
<tr>
<td><strong>LIGHT BEER</strong></td>
<td>425 mL</td>
<td>2.7% alc/vol</td>
</tr>
<tr>
<td><strong>REGULAR BEER</strong></td>
<td>285 mL</td>
<td>4.9% alc/vol</td>
</tr>
<tr>
<td><strong>FORTIFIED WINE</strong></td>
<td>60 mL</td>
<td>20% alc/vol</td>
</tr>
<tr>
<td><strong>SPIRITS</strong></td>
<td>30 mL</td>
<td>40% alc/vol</td>
</tr>
</tbody>
</table>

Weight Management

Being diagnosed with pre-diabetes can be excellent motivation for weight loss. If you are overweight gradual, sustained weight loss can have beneficial effects on your health. Even a modest weight loss (5-10% of your body weight) can significantly improve your blood glucose levels and blood pressure.

You might consider trying to lose weight if:

- Your clothes, that used to fit, are too tight.
- Your normal daily activities are becoming uncomfortable.
- Your waist circumference is above 94cm (Males) or above 80cm (Females).

How to measure your waist circumference:

- Locate the point half way between your lowest rib and the top of your hip bone. This mark is roughly in line with your belly button.
- Using a tape measure, measure directly against your skin.
- Breathe out normally.
- Make sure the tape is snug without compression on your skin.

Visit www.measureup.gov.au for more information on measuring your waist circumference and targets to achieve.
Weight Management

The information on physical activity and a healthy diet, already provided in this booklet, can help you to maintain your weight or lose weight gradually and avoid re-gaining weight later. If you need more help with this, contact an Accredited Exercise Physiologist or an Accredited Practising Dietitian. To recap these points:

Be physically active every day:

• Aim for a minimum of 30 minutes of activity daily (preferably 60 minutes), the more you can fit in the better!
• Find ways to include incidental activity into each day in addition to your exercise.
• If injury or illness makes it difficult for you to be active, seek help from a qualified professional. A physiotherapist or exercise physiologist can provide appropriate activity program to suit your situation.

Follow a healthy diet and be mindful of what you eat:

• Eat plenty of vegetables.
• Drink plenty of water (sometimes we confuse thirst with hunger).
• Limit fatty foods and highly refined foods with added sugar.
• Limit alcohol to 2 standard drinks per day.
• Be mindful of what you eat and how you eat it. This means:
  — Take time to enjoy your meal and chew slowly.
  — Aim to extend the amount of time it takes you to get through your meal.
  — Put cutlery down in between mouthfuls.
  — Be mindful: feel the textures and taste the flavours of your food.
  — Avoid the temptation to return for second servings.
  — Use a plate instead of a bowl when possible.
  — Eat with family, friends or colleagues so you can talk between mouthfuls (this slows down your eating and allows your stomach time to realise that it is full).
Weight Management

Important factors to remember:

- Being able to recognise when you are actually hungry.
- Feeling positive about yourself and what you are doing.
- Improved general health and feelings of well-being.
- Decreased symptoms of overeating e.g. lethargy and bloating.
- Increased ability to deal with emotions in helpful ways.
- Better relationships with family and friends.
- Improved mood.
- Greater enjoyment in life.
- Improved sleep quality.
- Improved blood pressure, blood cholesterol, and blood glucose levels (if relevant).

Tips to avoid gaining weight

- Make changes that suit you.
- Changes need to be realistic and something that you can sustain over a very long period of time e.g. years!
- Small changes over time are the best way to create good habits.
- Denying yourself of all your favourite foods is unnecessary. You can choose these foods in small amounts a couple of times per week.

Initially you will need to think about your changes but it will get easier.
Stress Management

Stress arises when a person has to respond to demanding situations. High stress levels can raise your blood glucose levels and increase your risk of progressing to type 2 diabetes.

You could be under too much stress if you suffer from one or more of these symptoms:

- Feeling sad or upset.
- Feeling anxious or tense.
- Often lose control, become angry or hostile.
- Feeling tired, fatigued or exhausted.
- Have difficulty sleeping.
- Have difficulty concentrating, remembering things or making decisions.
- Experience butterflies in the stomach, shortness of breath or digestive problems.

There are two main ways to reduce stress:

1. Change the situation that is causing stress.
2. Change your response to the situation.

Making changes to reduce stress is easier said than done, but the following strategies can help.

Don’t ignore stress

- Become aware of the situations that are stressful for you and identify your physical and emotional reactions.
- Try to identify precisely what it is about the situation that is stressful for you.
- Once you know this, you can work to manage both these situations and the negative effects they have on you.

Identify what you can change about the stressful situation

- The critical ingredient is how you interpret and respond to what has occurred.
Stress Management

You may wish to seek medical advice if stress is affecting your health adversely.

Learn to moderate your physical responses to stress

- Practise relaxing.
- Bring your heart-rate and breathing back to normal by taking slow, deep breaths.
- Relaxation techniques and stretching reduce muscle tension.
- Try to take a short relaxation break everyday.

Decrease stress with regular exercise and a healthy diet

- Include aerobic exercise in your daily routines.
- Eat well-balanced meals; try to avoid excess caffeine, alcohol and drugs.
- Try to get at least 7 hours of sleep a night.
- Spend time each day relaxing – take a warm bath; go for a walk; play with a pet; daydream, practice yoga or undertake any activity that you find relaxing.

Maintaining your emotional reserves

- Spend time with supportive friends or family.
- Choose someone you can trust and talk to them about the things you are finding stressful.
- Pursue realistic goals that are meaningful to you; do things that you do well.
- Expect some frustrations and failures and remember how you have managed to resolve these situations in the past.
Motivation

Spend some time identifying what you value in your relationships, work and leisure. Health is the foundation of these important areas of your life so it’s worth thinking over what you could gain from living a healthy lifestyle.

Which of the following are important to you?

- ‘I want to change my body shape to fit into some of my favourite clothes’.
- ‘I want to take the weight off my joints so I can reduce my pain levels’.
- ‘I want to improve my blood glucose levels’.
- ‘I want to have a positive outlook on life’.
- ‘I want more energy to play with the kids’.

Can you think of any other benefits from living a healthy lifestyle?

What are the changes you will need to make to your current lifestyle to achieve your health goals?


Tips for Successful Goal Planning

- Talk to family or friends about your goals.
- Collect ideas and enlist support making healthy decisions with friends and family. For example, instead of meeting with a friend for lunch you could perhaps meet for a walk instead.
- You have the best chance of success if your goal is Specific, Measurable, Achievable, Realistic, Time framed and Interesting to you (SMARTI).
- Set a goal and then identify some small goals that will help you reach your target.

For Example:

**Goal**: ‘I want to be able to walk around Lake Ginninderra in the next 6 months’.

**Smaller goal**: ‘I will walk for 10 minutes each day and build my walks up slowly each week’.

- Be kind to yourself.
- If you miss a walk or eat something you later regret remind yourself of your health values and recommit to your goals. We are all human and it is important to remember that slips need not derail you from your goals.
- Remember every time you make a decision in line with your health values it’s one more step in the right direction.
Helpful Books

Cookbooks:

*Diabetes Eat and Enjoy* by R Cox, M Cox, J Macdonald & C Roberts.

*Quick Cooking for Diabetes* by L Blair & N McGough.

*Low GI Diet Cookbook* by J Brand Miller, J McMillan-Price & K Foster-Powell.

*Readers Digest – Diabetes Cookbook.*

*Diabetes Cookbook* by Diabetes Australia.

*The Australian Women’s Weekly – Cooking for Diabetes.*

*Heart Food: The Healthy Heart Cookbook* by N Senior & V Cuskelly.

Other Helpful Books:

‘If not dieting’ by Dr Rick Kausman.
This book provides help and support for people to achieve and maintain a healthy, comfortable weight without being deprived of food or losing quality of life.

‘Overcoming Binge Eating’ by Christopher G Fairburn.
This book is helpful for any person that over-eats in response to emotional or stressful situations.

‘The Happiness Trap; stop struggling, start living’ by Russ Harris. This book is based on the principles of acceptance and commitment therapy (ACT), a mindfulness-based model, developed from research in behavioural psychology. The aim of ACT is to maximise potential for a rich and meaningful life.
Where to Get Help

Your local GP is a good place to start.

The following programs are available in Canberra for people with pre-diabetes.

Diabetes ACT
Offer Accredited Practicing Dietitian and Diabetes Educator Services and group education, to anyone diagnosed with diabetes or pre-diabetes.

Phone: 6288 9830 | Email: diab@diabetes-act.com.au
Address: 17 Barry Drive Turner ACT 2612

Adult Healthy Weight Group
This group run by ACT Health aims to help with the weight loss journey. It consists of 4x 2 hour sessions with ongoing support from a Dietitian and Social Worker. A male only group is also available.

Phone: 6207 9977 ACT Health Community Health Intake (CHI).

Get Healthy Information and Coaching Service
This is a free, confidential telephone-based service that helps people make lifestyle changes to achieve their health and fitness goals.

Phone: 1300 806 258 | Website: www.gethealthy.act.gov.au

Living a Healthy Life with Long Term Conditions
This is a group aimed at men and women of all age groups with any condition lasting longer than 6 months. It helps to deal with emotions such as frustration, fear and hopelessness and also helps individuals to adopt a lifestyle that prevents complications.

Phone: 6207 9977 (Community Heath Intake) | Email: Virginia.rasheed@act.gov.au

UC Nutrition Clinic
This service aims to provide Masters of Nutrition and Dietetics students with the opportunity to gain hands on experience by providing personalised service. The clinic provides a student led service at minimal cost ($30 or $20 for concession rate) where student dietitians are supervised by an Accredited Practicing Dietitian (APD). Group activities such as supermarket tours and cooking groups are also available on demand.

Phone: (02) 6201 5843 or 1300 784 785 (local call) | Fax: (02) 6201 5666
Email: healthclinic@canberra.edu.au
Where to Get Help

Dietitians Association of Australia
- Website: www.daa.asn.au
  Email: nationaloffice@daa.asn.au
  Phone: (02) 6163 5200 or 1800 812 942

Exercise & Sports Science Australia
- Web: www.essa.org.au
  Email: infor@essa.org.au
  Phone: (07) 3862 4122

If you’re interested in further reading, the following websites may be useful.
- Diabetes Australia
  Website: www.diabetesaustralia.com.au
- Australian Diabetes Council
  Website: www.australiandiabetescouncil.com
  Phone: 1300 342 238

All of these websites can provide you with information in languages other than English.

If you are having trouble coping or need someone to talk to, try:
- Beyond Blue
  Website: www.beyondblue.org.au
- Lifeline
  Phone: 131114
- Black Dog Institute
  Website: www.blackdoginstitute.org.au

ACT Health Diabetes Service
ACT Health Directorate, Canberra

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- Contributors from ACT Diabetes Reference Group.
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