







# HEALTHY EATING FOR PEOPLE WITH TYPE 2 DIABETES

Prepared by the Diabetes Interest Group of the Irish Nutrition & Dietetic Institute



### Introduction

This booklet has been prepared for those who have been diagnosed with Type 2 diabetes. Type 2 diabetes is a very common medical condition. While it is a serious condition that is on the increase, a lot is now known about Type 2 diabetes and it can be successfully treated and managed so that the person with diabetes can live a long and healthy life. For some people it can be prevented or delayed.

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Visit the HSE website for more information or to book your FREE place on a diabetes support course www.hse.ie/diabetes

## SO WHAT IS TYPE 2 DIABETES?

Type 2 diabetes is a condition which occurs when the body is no longer able to deal with the increasing level of glucose (sugar) in the blood.

Normally when we eat food, in particular carbohydrates (starches and sugars) the level of glucose in our blood increases. In response to this the pancreas produces insulin which brings the level of glucose back to normal. Insulin is a hormone which is produced by a small organ in the body called the pancreas.

In a person with Type 2 diabetes the body may not produce enough insulin or the insulin produced may not work as effectively as it should. This is referred to as insulin resistance. Being overweight increases insulin resistance.

Both a lack of insulin and insulin resistance mean that blood glucose levels increase. It is important to keep the blood glucose within normal limits as poorly managed diabetes can damage the eyes, kidneys and the nerves and can also contribute to cardio-vascular disease (CVD) which includes heart disease, stroke and poor circulation.



## **Treatment of Type 2 Diabetes**

Treatment of Type 2 diabetes requires that you follow a healthy lifestyle which includes eating healthily and taking regular activity.

Most people with Type 2 diabetes are overweight so it is important that you lose weight gradually. If you are newly diagnosed with Type 2 diabetes, losing excess body weight may be able to put diabetes into remission or out of the Type 2 diabetes stage. It may help delay or reduce your need for diabetes medicines. Losing 1-2 lbs a week is a beneficial amount to lose. Weighing yourself once a week will help you to monitor your progress.





As well as eating healthily and being physically active you may be prescribed tablets to control your diabetes. Type 2 Diabetes can be a progressive condition and in some cases taking tablets is not enough to maintain or achieve good control and it may be necessary for you to also take insulin.

If you are overweight, losing some weight is one of the most important things you can do to treat your diabetes.

#### Type 2 Diabetes can be treated by:

- Eating healthily and regular activity
- ▶ Eating healthily, regular activity and tablets
- Eating healthily, regular activity, tablets and insulin

## Aim of Treatment of Type 2 Diabetes

When you see your doctor you should decide together what treatment is best for you. The aim of your treatment will be to keep your blood glucose levels within normal limits, usually 4-8mmol/L. Eating healthily can help to keep your blood glucose, cholesterol and blood pressure in the normal range.

#### Diabetes Facts: did you know?

- ▶ People with diabetes have an increased risk of cardiovascular disease which includes heart disease and stroke.
- ▶ Heart disease affects people with diabetes twice as often as people without diabetes.
- ▶ People with diabetes are 2-4 times more likely to suffer strokes and once having had a stroke are 2-4 times more likely to have a recurrence.
- ▶ Smokers with diabetes are 9 times more likely to have a stroke Remember, these risks are due to poorly managed diabetes.

If glucose, blood pressure and cholesterol levels are kept within the normal range all these risks are reduced.



## Making Sense of Eating and Type 2 Diabetes

There are many different messages about the best diet to manage Type 2 diabetes. The media, healthcare professionals and researchers can give conflicting advice - some say that sugar is bad for us, others say that fat that is the biggest problem. It can be confusing to know what information to listen to and advice on healthy eating seems to change every day. So how do you cut through all of this information to decide what's right for you and your diabetes?

If you are overweight, losing some weight can help to improve blood glucose levels, blood pressure and cholesterol. When it comes to keeping weight under control, dietitians have always given a consistent message which is the need to get the balance right between the food we eat and the amount of physical activity we do.

When we focus too much on one nutrient e.g fat or sugar, it is easy to forget about the overall quality of our diet and following a particularly strict diet can be difficult to sustain and be nutritionally unbalanced. Food gives our body important vitamins and minerals such as calcium, iron and fibre. We need to eat a wide variety of food to get all the nutrients needed for good health during all stages of life and to make eating for Type 2 diabetes as enjoyable as possible.

One of the biggest problems with following a particular diet is keeping it going – especially for maintaining weight loss. When it comes to eating, changing our behaviour is not easy. There are some strategies that can help including setting realistic goals, planning ahead, getting the right support and getting back on track with your plans when you lapse.

Studies have shown that a number of dietary approaches can work for managing Type 2 diabetes. This booklet mainly covers a high fibre healthy eating approach using the food pyramid as a guide.

Self-monitoring is a key skill to help you to identify where changes to your lifestyle might help. Keeping records can help you to see links between your blood glucose levels, weight, food intake and activity. From this you can compare your records to the food pyramid if whatever plan you are trying to follow or the goals you have set for yourself and decide if you need to make further changes.

Consider signing up for a FREE diabetes support course. It can feel like there's a lot to learn with Type 2 diabetes and diabetes education courses can make living with Type 2 diabetes easier. Going on a course can help you understand more about diabetes and how it affects your body.

People who have been on a course feel more confident about looking after their condition and are less likely to develop health problems. In fact, attending a course is an essential part of diabetes management and it is now recommended for every person with type 2 diabetes to complete.

There are 3 FREE diabetes support courses supported by HSE. These are DISCOVER DIABETES – Type 2, DESMOND and CODE.

You can find more information and book your FREE place by going to www.hse.ie/diabetescourses

## BE A HEALTHY WEIGHT

If you are overweight, losing weight is one of the best and most important things to manage your diabestes. Being overweight contributes to insulin resistance. Losing weight will help to improve your diabetes control.

- Aim to lose 5-10 kg (11-21lbs) over 3-6 months, or aim to lose 10% of your actual body weight. In other words if you are 100 kg (15 stone 10 lbs) you should aim to lose 10 kg (21lbs) or 5 15% of your body weight.
- Weight loss should be gradual, try to lose 1-2 lbs per week. If you lose weight any faster than this you will end up losing muscle as well as fat which is not recommended, you just need to lose fat!

Many people with Type 2 diabetes tend to carry weight around their middle, so as well as looking at your weight you should check your waist measurement. Losing weight around your stomach area helps to control your diabetes. If you have a waist measurement over these values you are at increased risk of cardio-vascular disease.

- ▶ Women should aim to have a waist measurement no more than 31.5 inches (80 cm)
- ▶ Men should aim to have a waist measurement no more than 37 inches (94cm). If you are a man of Asian descent you should aim for a waist measurement no more than 35 inches (90 cms).

#### Losing weight will help you to:

- Lower your blood glucose
- · Reduce the risk of heart disease
- Lower your blood pressure

- Lower your blood cholesterol
- Improve your mobility
- Reduce the stress on your joints

For more tips and advice on losing weight please go to www.safefood.net/weight-loss

## **Physical Activity**

## As well as healthy eating, taking regular physical activity can help you manage your diabetes.

This means walking for a minimum of half an hour most days. Other suitable exercise is cycling, swimming, dancing, golfing or attending the gym. If you are overweight you will need to do at least 60-90 minutes of activity a day to ensure you lose weight. Start slowly and gradually increase in time and pace.

#### Physical activity has many health benefits:

- Helps keep your blood glucose within normal limits
- Helps you to feel more energetic
- Improves circulation
- Relieves stress
- Helps you to lose weight
- Increases healthy cholesterol
- Improves your blood pressure
- Improves your mood

Other activities you can do to keep active are using the stairs, washing the car, gardening and housework.

When exercising always wear good-fitting comfortable footwear so you won't damage your feet. If you have an existing heart condition or have not exercised in the past it is suggested that you consult with your GP or diabetes team before commencing an exercise programme.

## EATING WELL FOR TYPE 2 DIABETES

#### Some general tips which are important:

- Eat regular meals
- Include a balance of all the food groups which include carbohydrates, proteins and healthy fats. See food pyramid on page 18 for serving sizes
- Limit your intake of top shelf foods
- Reduce your total fat intake and choose more monosaturated fats
- Eat vegetables, salad and fruit regularly. Aim for 5-7 servings of a mix of vegetables and salad every day
- Eat oily fish twice a week
- Avoid adding salt to food and cut down on processed foods
- If you drink alcohol, the recommendations are no more than 11 standard drinks a week for women or 17 standard drinks a week for men (see page 20).

#### **Regular Meals**

- Have regular meals at regular times each day. Have a breakfast, a lunch or tea type meal and a dinner
- If you are hungry in between your meals you could try a low calorie snack e.g. fruit or diet or low calorie yoghurt
- Eating regularly means you have to plan ahead. If, for example, you have to make a long journey, prepare some food to take with you so you can have something to eat at the usual time, plan meals for the week ahead and use a shopping list.

## Carbohydrates

Carbohydrates have the largest effect on blood glucose levels because when they are digested carbohydrate is broken down into glucose (sugar).

Carbohydrates consist of sugars and starches and are an important energy source for the body and brain. However with diabetes it is important to understand where the sources of carbohydrates are found and be aware of serving sizes.

#### The following foods are sources of Carbohydrates:

#### **Starchy Carbohydrates**

- All types of bread and crackers
- Potatoes
- Cereals and oats
- Pasta/Rice/Noodles/Couscous
- Yam/Plantain
- Foods made with flour e.g. Pizza bases

#### **Sugary Carbohydrates**

All sweet foods (cakes, chocolate, biscuits, jams, marmalades, non-diet fizzy drinks etc.)

#### **Naturally Occurring Sugars**

- Fruit and fruit juices
- Pulse vegetables (peas, beans, lentils)
- Dairy food (milk, yogurt)





Choose similar sized portions of carbohydrate at each main meal as this can help to control your blood glucose levels.

Try to use wholegrain varieties of these foods to increase the fibre content of your diet e.g. wholegrain bread, wholegrain cereals, wholewheat pasta and brown rice. Adequate fibre in the diet ensures healthy bowel functioning.

#### 1 serving of starchy foods is equal to:

- 2 medium potatoes/4 small potatoes
- ▶ 2 thin slices of bread or 1 pitta bread
- ▶ 1 cup of cooked rice/pasta/ noodles/couscous
- 1 serving of breakfast cereal (2 weetabix, 1/3 cup of dry porridge, 1/2 cup of high fibre flake)
- ▶ 1 cup of yam/plantain



If you are referred to a Dietitian you will be advised on how many portions you should eat for your weight and activity levels.

Choose carbohydrates with a low GI (Glycaemic Index). GI refers to the rate at which glucose is released from a food. Foods that have a low GI release glucose slowly and are the best types of carbohydrate to eat for diabetes. Starchy foods with a low GI include porridge, pasta, pulses (peas, beans, and lentils), noodles, and multiseed/granary breads.

## High Fat, Salt and Sugar Foods (Top Shelf of Pyramid)

These foods should be limited to only once or twice a week

Sugary foods/drinks can also be high in calories and cause weight gain so for these two reasons these foods should be limited.

It is also important to choose foods that have a low sugar, salt and fat content. The table opposite shows suitable low sugar alternatives.

There is no need to buy special 'diabetic' foods. These foods are expensive, can be high in calories and fat and if taken in large amounts can cause diarrhoea.



High sugar foods to avoid	Choose instead
White or brown sugar, honey, syrup, treacle, glucose, sweeteners containing sucrose	Artificial Sweeteners e.g. Canderel, Splenda, Hermesetas or Supermarket brand versions
Marmalade & Jams	Reduced sugar or high fruit content marmalade & jams, pure fruit spreads e.g. Kelkin, Poiret & Robertsons
Sweets, chocolate, fudge, toffees	Sugar free peppermints/chewing gum
Fruit tinned in syrup	Fruit tinned in natural juice, fresh fruit or small portions of dried fruit.
Fizzy drinks and squashes containing sugar or glucose e.g. Coke, lemonade flavoured mineral waters, mixed fruit juice drinks like Sunny Delight & Capri-Sun, Hot Chocolate and malted milk drinks like Ovaltine & Bournvita.	Sugar free or diet fizzy drinks and squashes. Pure fruit juice in small amounts, at mealtimes only.
Sugar coated cereals e.g. Frosties, Coco Pops, Crunchy Nut Cornflakes	High fibre cereals e.g. Porridge, Shredded Wheat, Branflakes, Fruit and Fibre







## **Understanding Fats**

Having Type 2 diabetes increases your risk of heart disease but eating less fat in your diet can help reduce that risk by helping you to manage your weight. As well as eating less fat it is important to eat the right type of fat.

#### There are different types of fat in our diet:

**Saturated fat** is the fat in our diet that increases cholesterol levels. Raised cholesterol increases the risk of a heart attack and stroke. Saturated fat is found in butter, lard, cream, fat on meat, meat products such as sausages and black and white pudding, cakes, tarts, take-away foods, crisps, chocolate, fudge, pastries and pies.

**Trans fats** raise your cholesterol. Trans fats are often found in hydrogenated margarines and some confectionary.

**Unsaturated fat** in our diet is better for heart health. Unsaturated fat comes in two forms monounsaturated and polyunsaturated.

**Monounsaturated fat** is found in olive oil, canola (rapeseed) oil, nuts such as peanuts, almonds, cashew nuts and spreads labelled high in monounsaturates. Try to include more monounsaturated fats instead of saturated fats

**Polyunsaturated fat** is found in sunflower, corn and soya oils as well as in spreads high in polyunsaturates.

▶ Oily fish is rich in a specific polyunsaturated fat called omega 3 that is very heart protective. It reduces inflammation and helps lower cholesterol. It is recommended to eat oily fish twice weekly if you have Type 2 diabetes. Oily fish includes salmon, sardines, mackerel, herring and trout.

Also if you have to lose weight cutting down on fat may help you to achieve and maintain a healthy weight.

Foods to limit	Foods to choose instead
Butter, Lard, Dripping, Hard Margarine	Low fat spreads – choose mono or polyunsaturated based spreads e.g.Golden Olive, Avonmore Extra Light, Low Low, Flora Light, supermarket brands of monounsaturated spreads, small amounts of olive or rapeseed oil.
Creamy sweetened yogurts, Greek yogurt, cream	0% fat yogurts, diet yogurts, low calorie fromage frais, supermarket brands of low calorie options
Full fat hard cheese, processed cheese and cream cheese	Low fat cheese such as Edam, Low fat cheddar, Feta, Mozzarella, Low fat cheese spread
Fried eggs, Scotch eggs	Boiled, poached or scrambled eggs
Salami, pâté, sausages, sausage rolls, black & white pudding, luncheon meat, meat pies and streaky bacon	Lean meat (cut off fat), chicken & turkey (no skin), liver, offal, soya mince, peas, beans, lentils and nuts
Fried fish or fish in batter	Fish fresh or frozen, tinned fish in tomato sauce, water or brine
Chips, roast potatoes, fried noodles, fried bread	Boiled, baked or mashed potatoes, boiled rice, pasta or noodles, bread & pitta bread
Cakes, tarts, pastries, chocolate, fudge, toffees and crisps	Plain popcorn, crackers, rice cakes
Mayonnaise, salad cream, fatty gravy	Small amounts of low fat mayonnaise & low fat salad cream, fat free dressings, small amounts oil and vinegar dressing, natural yogurt, gravy granules, mustard

#### Tips for reducing your fat intake

- Measure out fats/oils using household measures (see food pyramid for guidance)
- Choose low fat dairy products e.g. low fat milk, low fat cheese and low calorie yogurts
- Choose a low fat spread instead of butter
- Choose low fat mayonnaise, low fat salad cream and fat free dressings
- Cut all visible fat off meat, remove the skin from poultry
- When cooking mince drain the fat off, and skim the fat off casseroles and stews
- Avoid frying and use alternative cooking methods such as grilling, boiling, steaming, poaching, microwaving or baking
- Avoid rich sauces and fatty gravies: skim fat off the meat juices for home-made gravy, or use tomato based sauces and gravy granules instead
- Do not add extra fat to your food once it is cooked such as butter on potatoes or vegetables



## Fruit & Vegetables

Each day eat 5 - 7 servings from a variety of fruit, vegetables and salads. Fruit and vegetables are low in calories, low in fat and high in fibre and vitamins.

#### 1 serving is equal to:

- 1 medium sized apple, pear, banana
- 1/2 cup of cooked fresh fruit, fruit tinned in own juice, or frozen fruit
- 2 small fruits e.g. 2 kiwis, 2 mandarins or 2 plums
- 10-16 raspberries
- 1 small glass (150mls) unsweetened fruit juice
- 1 wedge of melon or slice of pineapple
- 1/2 cup of cooked vegetables
- 1 small bowl of mixed salad
- 1 small bowl of homemade vegetable soup

REMEMBER: Eat 3 portions of fruit every day. Avoid eating more than one portion at a time. If having fruit juice or smoothies have at meal times.

#### Top tips to ensure you eat enough fruit and vegetables

- Add fresh fruit to breakfast cereals
- Always add salad vegetables such as tomato, lettuce, cucumber and onion to sandwiches or rolls
- Aim to have 2 servings of fresh, frozen or tinned vegetables with your main meal
- Have fresh, frozen or tinned fruit in natural juice for dessert
- Have fresh fruit or vegetable sticks as a snack.

## The Food Pyramid

For adults, teenagers and children aged five and over

ot needed for

Needed for good health. Enjoy a variety every day.

#### Foods and drinks high in fat, sugar and salt



Most people consume snacks high in fat, sugar and salt and sugar sweetened drinks up to 6 times a day (Healthy Ireland Survey 2016). There are no recommended servings for Top Shelf foods and drinks because they are not needed for good health.



#### Fats, spreads and oils

Use as little as possible. Choose mono or polyunsaturated reduced-fat or light spreads. Choose rapeseed, olive, canola, sunflower or corn oils. Limit mayonnaise, coleslaw and salad dressings as they also contain oil. Always cook with as little fat or oil as possible – grilling, oven-baking, steaming, boiling or stir-frying.



#### Meat, poultry, fish, eggs, beans and nuts

Choose lean meat, poultry (without skin) and fish. Eat oily fish up to twice a week. Choose eggs, beans and nuts. Limit processed salty meats such as sausages, bacon and ham.



#### Milk, yogurt and cheese

Choose reduced-fat or low-fat varieties. Choose low-fat milk and yogurt more often than cheese. Enjoy cheese in small amounts. Women who are pregnant or breastfeeding need 3 servings a day.



### Wholemeal cereals and breads, potatoes, pasta and rice

Wholemeal and wholegrain cereals are best. Enjoy at each meal. The number of servings depends on age, size, if you are a man or a woman and on activity levels. Watch your serving size and use the Daily Servings Guide below.\*



#### Vegetables, salad and fruit

Base your meals on these and enjoy a variety of colours. More is better. Limit fruit juice to unsweetened, once a day.



#### \*Daily Servings Guide – wholemeal cereals and breads, potatoes, pasta and rice

Active	Child	Teenager	Adult	Adult	Inactiv	Teenager (13–18)	Adult (19–50)	Adult
	(5–12)	(13–18)	(19–50)	(51+)		(13–18)	(19–50)	(51+)
, in		_			<b>.</b>	_		_
#	3–4	4	4-5	3–4	1	3	3–4	3
•								
1	3-5	5-7	5-7	4-5		4-5	4-6	4
							. •	•
There is no guideline for inactive children as it is essential that all children are active.								

Serving size guide



serving size.

Drink at least

Average daily calorie needs for all foods and drinks for adults

fluid a day – v

Source: Department of Health, December 2016.

#### www.healthyireland.ie





Small or fun-size servings of chocolate, biscuits, cakes, sweets, crisps and other savoury snacks, ice cream and sugary drinks – **not every day, maximum once or twice a week.** 

#### 1 serving size is:



In very small amounts

1 portion pack reduced-fat or light spread for 2 slices of bread 1 teaspoon oil per person when cooking





50–75g cooked lean beef, lamb, pork, mince or poultry (half size of palm of hand)

100g cooked fish, soya or tofu

¾ cup beans or lentils

2 eggs

40g unsalted nuts or seeds







**5** for children age 9–12 and teenagers age 13–18

#### 1 glass (200ml) milk

- 1 carton (125g) yogurt
- 1 bottle (200ml) yogurt drink
- 2 thumbs (25g) hard or semi-hard cheese such as cheddar or edam
  - 2 thumbs (25g) soft cheese such as brie or camembert





Up to 7\* for teenage boys and men age 19–50

- 2 thin slices wholemeal bread, 1½ slices wholemeal soda bread or 1 pitta pocket
  - ⅓ cup dry porridge oats or ⅓ cup unsweetened muesli
  - 1 cup flaked type breakfast cereal
  - 1 cup cooked rice, pasta, noodles or cous cous
  - 2 medium or 4 small potatoes, 1 cup yam or plantain





1 medium sized fruit – apple, orange, pear or banana 2 small fruits – plums, kiwis or mandarin oranges Small fruits – 6 strawberries,10 grapes or 16 raspberries ½ cup cooked vegetables – fresh or frozen

tup cooked vegetables – Iresh or Irozen
 bowl salad – lettuce, tomato, cucumber
 bowl homemade vegetable soup
 150ml unsweetened fruit juice





Cheese Use two thumbs, width and depth

to auide

serving size.

Meat, poultry, fish The palm of the hand, width and depth without fingers and thumbs, shows how much you need in a day.



Reduced-fat spread Portion packs found in cafes can guide the amount you use. One pack should be enough for two slices of bread.



#### Oils

Use one teaspoon of oil per person when cooking or in salads.

8 cups of vater is best



#### Get Active!

To maintain a healthy weight adults need at least 30 minutes a day of moderate activity on 5 days a week (or 150 minutes a week); children need to be active at a moderate to vigorous level for at least 60 minutes every day.

#### Salt

#### On average Irish people eat at least 10g salt a day in their diet.

A recommended safe level of salt in the diet is 6g per day. Too much salt can contribute to high blood pressure and heart disease. If you have high blood pressure it is important to reduce your salt intake as much as possible.

#### To cut down on salt it is recommended to:

- Cut down on your intake of processed foods especially ready prepared meals and takeaways, as processed foods are the main source of salt in the diet
- Avoid added salt in cooking or at the table
- Instead of salt, flavour your food with pepper, garlic, vinegar, curry powder, mustard, lemon juice, parsley and other herbs and spices

### **Alcohol**

## As with the rest of the population people with diabetes should only drink alcohol in moderation.

Men should drink no more that 17 standard drinks a week and women no more than 11 a week. Everyone should have 3 alcohol free days per week. Try not to not have more than 5 standard drinks at one time.

1 pint beer = 2 standard drinks	1 small glass wine (100 mls) = 1 standard drink
1 pub measure e.g. vodka, whiskey = 1 standard drink	1 small bottle wine (187 mls) = 2 standard drinks
1 glass lager = 1 standard drink	1 bottle wine = 7-10 standard drinks

- Choose fizzy drinks labelled diet, light, zero or slimline as a mixer for spirits
- Avoid "Alcopops", liqueurs and cocktails
- Avoid low sugar beers as these are high in alcohol
- Do not drink on an empty stomach

## MEAL SUGGESTIONS

So now you have some idea what you should eat and drink, lets put it all together and come up with some meal suggestions. Refer to the food pyramid for serving sizes.



#### **Breakfast Ideas**

- Branflakes, low fat milk and a small banana or glass of orange juice
- Grapefruit segments, boiled egg and wholegrain toast with low fat spread
- Porridge with 1 dessert spoon of sultanas and a low fat no added sugar yogurt
- Shredded wheat and strawberries (if in season), low fat milk and a natural yogurt

- Weetabix and low fat milk, Ryvitas and reduced sugar marmalade
- Poached egg and grilled tomato, wholegrain toast and a low fat spread
- Oatibix, a kiwi and low fat milk, Crackerbread/Cracottes and a low fat spread
- Grilled aubergine, mushrooms and scrambled eggs with wholegrain toast
- Wholegrain toast spread with avocado and sliced cucumber and low fat/diet yogurt









#### **Lunch Ideas**

- Homemade vegetable soup, wholegrain bread, low fat cheese and an apple
- Pitta bread sandwich made with tuna, sweet-corn and a teaspoon low fat mayonnaise, and a slice melon to finish
- Pasta with chicken and tomato sauce made with tinned chopped tomatoes, salad\* and a natural yoghurt dressing
- Baked beans on granary bread toasted and a pear
- Egg omelette, a small bagel and a salad
- Sardines, tomatoes, wholemeal bread and an orange
- Grilled rashers and mushrooms, granary toast and peach/nectarine (if in season)





#### **Dinner Ideas**

- Lean grilled pork chop and apple sauce, carrots, peas and mashed potatoes
- Roast lamb, broccoli and cauliflower, a baked potato and low fat gravy
- Baked cod/haddock with lemon juice and black pepper, couscous with roasted vegetables (eg peppers, mushrooms, courgette)
- Stir-fried chicken with vegetables and wholegrain or basmati rice

- Salmon marinated for 1/2 hour in orange juice, garlic and reduced salt soy sauce, then baked, served with noodles and frozen peas
- Chicken, chickpeas and vegetable casserole, steamed or boiled potatoes.
- Chilli Con Carne with basmati rice and a side salad
- Baked trout/mackerel with parsnip, onion, garlic and sweet potato
- Seafood pie with a green salad
- Stir fry chicken with roasted vegetables, peppers, courgette and mushrooms with pasta and pesto
- Chicken and mushroom risotto with a side salad
- Moroccan lamb and vegetable tagine with cous cous
- Tuna with olives, tomato, cucumber and a mixed bean and pasta salad



NOTE: Although these foods are healthy choices it is important to reduce portion size if you need to lose weight.

#### **Snack ideas**

- Fresh Fruit
- Vegetable sticks (celery, carrots, cucumber, peppers and salsa dip)
- Diet or 0% fat yogurt
- Bowl vegetable soup
- Closed handful of unsalted nuts
- Sugar free jelly
- Crispbread/rice cakes or oat crackers with tomato/cucumber/small serving low fat cheese spread
- Small wholemeal scone with low fat spread
- Small bowl cereal with low fat milk





#### **Fluids**

It is important to drink at least 8-10 glasses of fluid a day, this includes water, no added sugar squashes, diet drinks, tea, and coffee.

## HYPOGLYCAEMIA

Hypoglycaemia or a low blood glucose is when your blood glucose falls below 4mmol/l. It is often referred to as a "hypo".

Hypoglycaemia can be a side effect of some diabetes medications.

Check with your GP, practice nurse, pharmacist or diabetes unit what type of medication you are on and if it puts you at risk of hypoglycaemia.

- Symptoms of a "hypo" may vary and can include sweating, shaking, tingling of lips and tongue, tiredness, hunger, trembling, dizziness, blurring of vision, headache, difficulty concentrating and irritability.
- ▶ Remember some of these symptoms also happen when you have high blood glucose levels. So ideally you should test your blood glucose to confirm if you are "hypo".

#### What causes a "hypo"?

- Taking too much insulin or too many diabetic tablets
- Eating too little carbohydrate food or missing or delaying a meal
- More strenuous physical activity than usual
- Excess alcohol intake

#### What to do if you have a "hypo":

If you feel able check your blood glucose. If it is below 4mmol/l take 15g of quick acting carbohydrate.

If you do not feel able to check your blood glucose, take 15g quick acting carbohydrate immediately.

#### Step 1:

- Some examples of 15g quick acting carbohydrate are
  - 5 glucose or dextrose sweets such as 'Dextro Energy' or 'Lucozade Energy' or 'Lift' tablets
  - 170ml of 'Lucozade Original'
  - 'Lift Glucose Juice Shot' (60ml)
  - 1-2 tubes of 'Glucogel' 1 tube has 10g of carbohydrate
- If glucose is not available other options include
  - 150ml fruit juice or 1 glass
  - 1 glass of fizzy drink (not diet) check the carbohydrate content
  - 3 teaspoons of sugar (for example dissolve in hot water or tea)



It is important to always check the amount of carbohydrate (sugar or glucose) in whichever product you use to treat a hypo. The amount in different fizzy drinks, glucose tablets or gels may change over time. Check the amount needed to give you 15g of carbohydrate.

#### Step 2:

Wait 10-15 minutes, recheck your blood glucose, and if it is still below 4mmol/l take a further 15g carbohydrate.

Once your blood glucose is over 4mmol/l and you are due to eat in the next hour no further carbohydrate is needed. If you are not due to eat for some hours then it is best to follow this up with a snack containing carbohydrate or take your next meal early.

Take note of when the "hypo" occurred, so that you will know how to prevent it happening in the future. Remember to discuss these events with your GP, practice nurse or diabetes team.

#### Hypoglycaemia and driving:

It is very important you know how to prepare yourself for any journey and ensure you are safe to drive. If you have diabetes treated with insulin or medications that have the potential to cause hypos you must inform the National Driver Licence Service (NDLS) – see www.ndls.ie or call 1890 406 040.

Always carry your glucose meter and blood glucose strips with you. You must check your blood glucose before driving and every 2 hours while driving. If your blood glucose is 5.0 mmol/l or less, have a carbohydrate snack. If it is less than 4.0 mmol/l or you feel hypoglycaemic, do not drive. Take appropriate action. Retest to ensure your blood glucose is above 5.1 mmol/l.

More guidance on driving if you are taking insulin or medicines that may cause hypos is available at http://www2.hse.ie/conditions/type-2-diabetes/living-with/driving.html

#### Be prepared

- Always carry some form of quick acting carbohydrate to treat hypoglycaemia
- Carry ID to let people know you have diabetes in case of Emergency

## HAVE REGULAR CHECK UPS

Attending regular appointments with your diabetes team is important for managing your diabetes and preventing health problems.

You need to have your diabetes reviewed by your GP or diabetes team regularly even if you feel well.

#### Checklist for a diabetes review

- Blood glucose levels and HbA1c (Test of your average blood glucose reading over the last 3 months)
- Blood pressure
- Cholesterol and lipid profile
- Medication
- Discuss any recent hypos (low blood glucose readings)
- Smoking
- Exercise
- Healthy eating
- Weight and BMI
- Alcohol intake
- Feet
- Eyes
- Kidney review (blood or urine)
- Attend a local diabetes support course (DISCOVER DIABETES -Type 2, DESMOND or CODE) – book your FREE place at www.hse.ie/diabetescourses

### **SMOKING**

Smoking can also aggravate many of the problems that people with diabetes are already at risk of, such as heart and blood vessel disease.

Smoking reduces the amount of oxygen reaching your cells, raises your "bad" cholesterol and constricts your blood vessels. Take the first step today by calling the QUITline on **1800 201 203** or talk to your diabetes team for advice.



### **Useful Contacts**

- ✓ Visit the HSE website for more information www.hse.ie/diabetes
- ✓ Book your free place on a diabetes support course www.hse.ie/diabetescourses
- ✓ For tips and advice on how to lose weight go to www.safefood.net/weight-loss
- ✓ For help and support and lots of website links to help you treat and manage your diabetes go to www2.hse.ie/conditions/type-2-diabetes/help-and-support.html
- ✓ A variety of heath promotion leaflets can be downloaded or ordered at www.healthpromotion.ie
- ✓ For tips to keep well go to www.healthyireland.ie

#### **Diabetes Ireland**

19 Northwood House, Northwood Business Campus, Santry, Dublin 9, D09 DH30 01 842 8118 | www.diabetes.ie

#### Irish Nutrition and Dietetic Institute

Ashgrove House Kill Avenue, Dun Laoghaire, Co. Dublin www.indi.ie

#### HWB00380

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