



Your Guide to  
**Healthy Eating for  
Managing Diabetes**

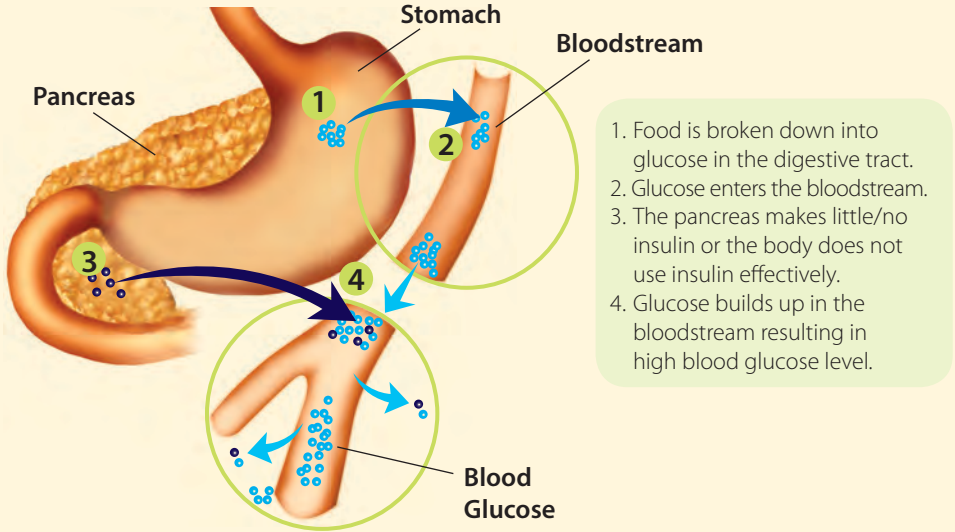
The  's of Health



Changi  
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# What is diabetes?

- A condition when the blood glucose level is higher than normal as described below.



## There are two types of diabetes:

### 1. Type 1 Diabetes

It is a condition when the pancreas produces little or no insulin. It usually occurs in children, young adults and occasionally in older adults.

### 2. Type 2 Diabetes

It is a condition when the pancreas produces insulin but the body does not use it effectively, also known as insulin resistance. It usually occurs in adulthood, overweight people and is hereditary.

## Why is good blood glucose control important?

Prolonged poorly controlled blood glucose levels may result in damage to the blood vessels in the heart, eyes (retinopathy), kidneys (nephropathy) and nerves (neuropathy). It is also associated with the increase risk of coronary heart disease, blindness, kidney failure and numbness of limbs.

# How to manage your diabetes?

## 1. Lose weight if you are overweight

- Aim for a healthy Body Mass Index (BMI) ranging from 18.5 to 22.9kg/m<sup>2</sup> to reduce the risk of heart disease and insulin resistance.

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)} \times \text{Height (m)}}$$



## 2. Have a moderate and consistent amount of carbohydrate at regular meal times

- This provides a constant and regular amount of sugar from food to reduce fluctuations in the blood glucose levels.
- This is also important for those on medication and/or insulin therapy to allow the action of the medication and/or insulin to match your food intake, hence preventing hypoglycemia (low blood glucose level).

## What is carbohydrate?

A nutrient in food which becomes glucose in the blood when digested. This glucose is then used as fuel for the brain and body.



### CARBOHYDRATE FOOD SOURCES

Sugar and Sweets  
(e.g. syrup, honey, dessert and sweetened drinks)

Milk and Yoghurt  
Beans and Lentils

All Fruits  
Starchy Vegetables  
(e.g. corn, peas, tapioca and yam)

Starches  
(e.g. rice, noodle, pasta, bread, biscuits, potato, oats, chapati and thosai)

### 3. Limit intake of refined sugar

- Food and beverages high in refined sugar (*e.g. table sugar, brown sugar, honey, syrup, sweets, chocolates, sweetened beverages and sweetened desserts*) may cause a sudden rise in your blood glucose levels.



### 4. Eat food high in fibre

- Fibre helps to slow down the rate at which sugar is being released into the bloodstream. Fibre also keeps you full and improves bowel health.
- Include 2 servings of fruits and 2 servings of vegetables daily.
  - \* 1 serving of fruit = 1 small apple or 1 wedge papaya or 10 grapes (small)
  - \* 1 serving of vegetable = 100g cooked vegetables ( $\frac{3}{4}$  mug) or 150g raw vegetables
- Include whole grain products in your diet (*e.g. whole grain/wholemeal bread, oats, chapati, brown rice or wholemeal biscuits*).



### 5. Eat less fat or oily food especially food high in saturated fat and trans fat

- Limit intake of saturated fat (*e.g. butter, lard, ghee and fat/skin on meat*) and trans fat (*e.g. fried food, baked goods, shortening and partially hydrogenated vegetable oil*). They increase the risk of fat deposits in the blood vessels (atherosclerosis) which may increase the risk of heart disease and stroke.
- Choose healthier fat sources such as polyunsaturated and monounsaturated fat (*e.g. sunflower oil, canola oil, sesame oil, peanut oil and olive oil*).



## 6. Reduce intake of salt

- High salt intake is associated with high blood pressure, which may lead to an increase risk of developing kidney disease, stroke and heart disease.
- Add less salt and sauces during cooking.
- Limit intake of processed food (*e.g. fishball, ham, sausage, salted vegetables, pickles and canned food*).
- Cut down on gravy added to rice/noodles.
- Spice up your meals with natural herbs and spices (*e.g. ginger, garlic, onion, chilli, pepper, lemon and vinegar*).



## 7. Adopt an active lifestyle

- Being active helps to maintain a healthy body weight.
- Aim for 150 minutes of moderate intensity activity per week (*e.g. brisk walking, cycling, jogging, swimming and dancing*) where possible or as advised by your doctor.

## 8. Take your medication and/or insulin as prescribed by your doctor

## Diabetic food

Diabetic food is not an essential part of your diet. Many diabetic food such as diabetic chocolates are often sweetened with artificial sweeteners such as sorbitol, which may have a laxative effect if consumed in large amounts. Some diabetic products may also be high in fat and are not suitable for overweight people with diabetes. Remember that diabetic food may still contain carbohydrate such as flour, milk and fruit. Other forms of sugar such as lactose may also be added as fillers.



In summary, it is important to do the following for good blood glucose control:

- Eat a well balanced diet with a consistent amount of carbohydrate at each meal
- Limit intake of refined sugar
- Maintain a healthy body weight
- Exercise regularly
- Take your medication and/or insulin as prescribed by your doctor

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