



**NHS**

**Bedfordshire Hospitals**

NHS Foundation Trust

# **Information about Type 2 Diabetes**

**Booklet to accompany your call  
with a Diabetes Educator**

## INTRODUCTION

The Bedford Hospital diabetes educator will call you at your agreed appointment time and introduce themselves.

- Please have this booklet and a pen ready and also ensure that you have all the documents to hand, that you were sent for this session.

You will be asked to confirm your identity:

- Be prepared to tell your educator **your full name and date of birth** when requested.

# DIABETES EDUCATION

- This session aims to give you **general information** on how to manage your Type 2 diabetes.
- If you have any personal medical concerns, we will refer you back to **your GP or Nurse** who have detailed information about your health.

## YOUR DIABETES

1. **When and how** did you find out you had Type 2 Diabetes?
2. What do you think **causes** Type 2 diabetes?
3. Have you heard of any of the **parts of the body** that diabetes can damage?
4. What **medication** are you currently taking for diabetes?
5. What **question(s)** do you have about diabetes?

# FOOD AND GLUCOSE

The body gets glucose (“sugar”) from foods containing carbohydrate.



Starchy foods

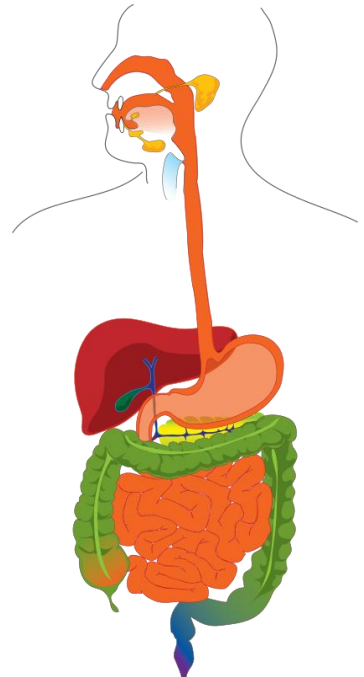


Milk & Dairy



Fruit

The digestive system breaks down carbohydrate containing foods into glucose.



The glucose (“sugar”) goes into the blood stream then into the cells where the glucose can be used for energy.



Normal blood  
glucose level



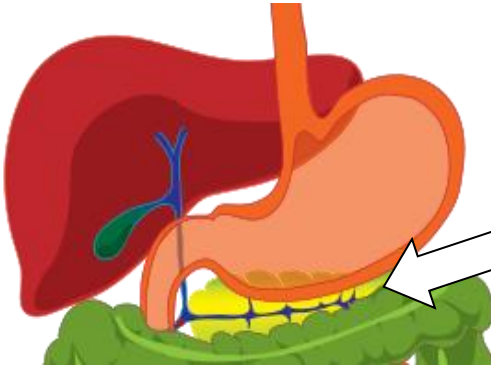
High blood glucose level  
(Hyperglycaemia)



then into the cells where the glucose is  
used to make energy.

To move glucose into the cells,  
we need insulin.

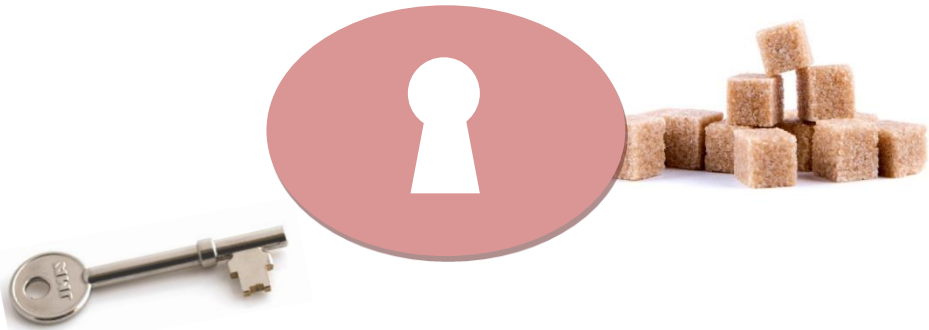




Insulin is a hormone made in the body.

The pancreas makes insulin.

## HOW INSULIN WORKS



If there is a lot of fat around the stomach, your insulin isn't able to work very well...



...so the level of glucose in the blood rises

High blood glucose level  
(Hyperglycaemia)



This is known as '**Insulin Resistance**'

## A HEALTHY BLOOD GLUCOSE RANGE

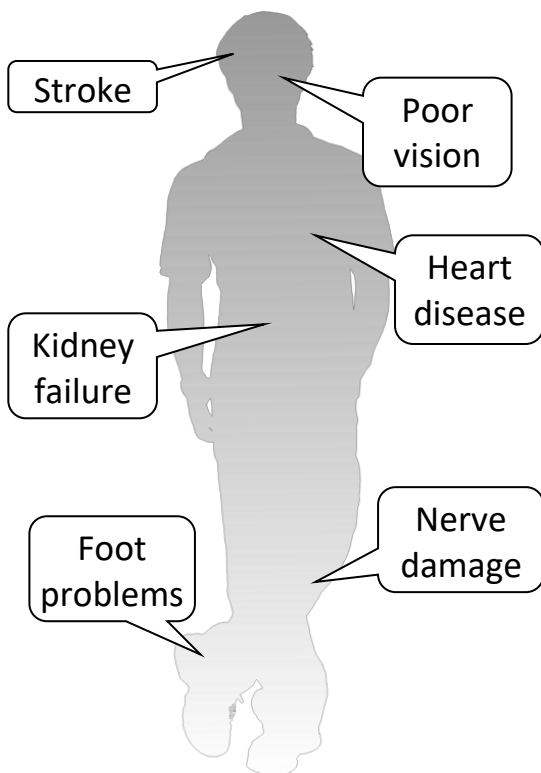
For most people this would be

**4.0-7.0 mmol/L (before meals) and  
less than 8.5mmol/L two hours after a meal**

Your health professional may give you a different range depending on your personal health circumstances.

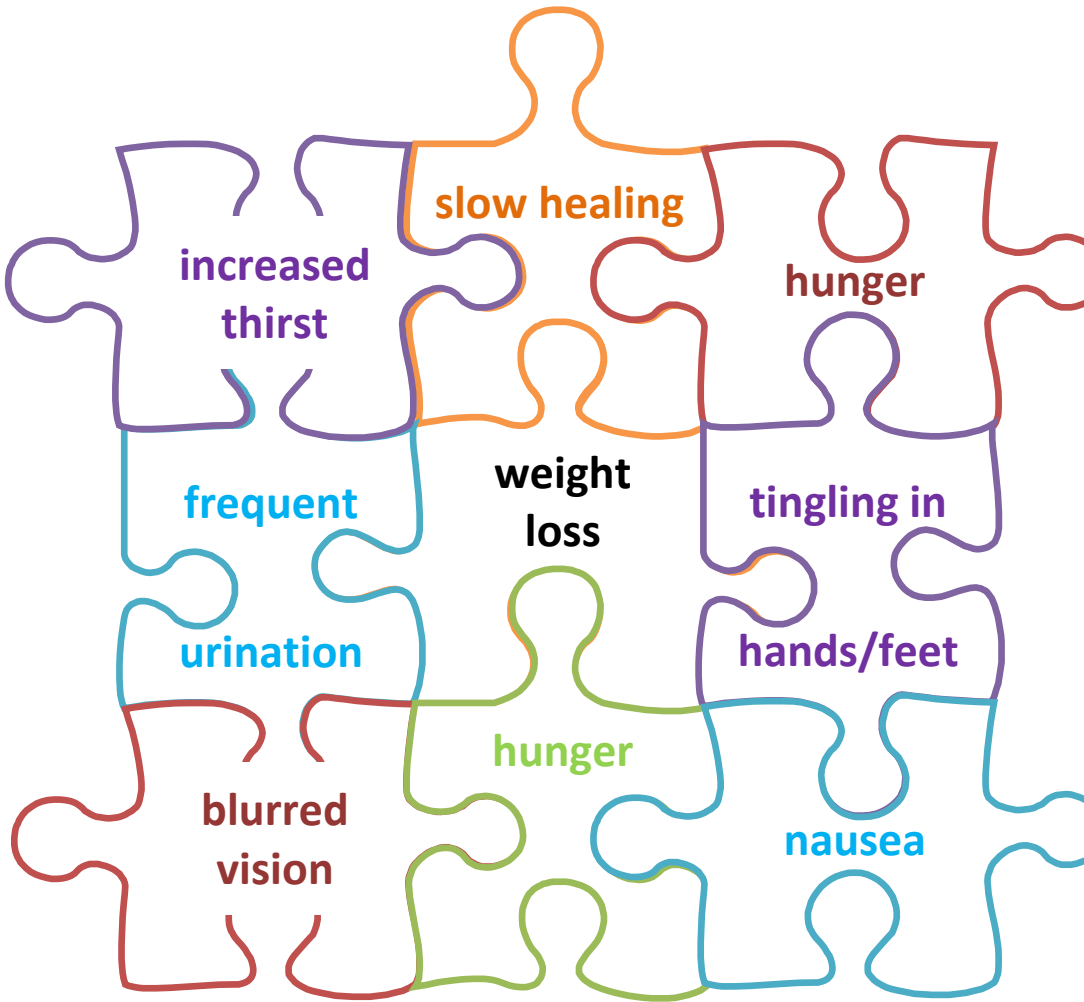
If blood glucose is not kept within a healthy range, high blood glucose levels will affect other parts of the body.

We will discuss the potential long term health effects of high blood glucose later on.





# DIABETES SYMPTOMS



Intentionally blank page

What do you think might have  
increased your risk of developing  
type 2 diabetes?



# FACTORS WHICH CAN INCREASE THE RISK OF DEVELOPING TYPE 2 DIABETES



overweight/obesity



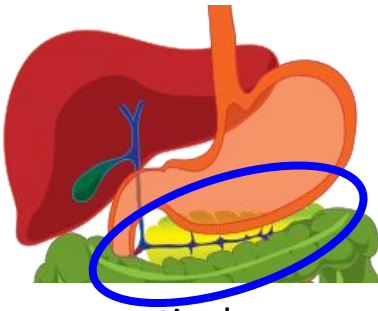
being sedentary



becoming older



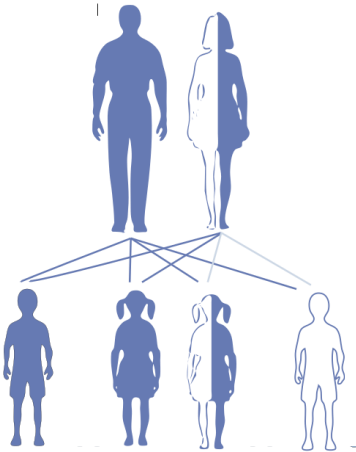
ethnic origin



pancreatic damage



gestational diabetes



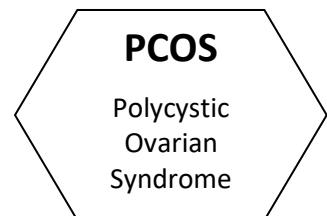
family history



steroid tablets



depression



# SMALL BLOOD VESSELS

## EYES



Too much glucose can block the blood vessels to the eye and cause damage to the part of the eye called the retina and can affect the sight.



Take care of your eyes by going to your free annual\* retinal screening appointment.

\*Retinal screening frequency will be changing to biannually unless you have contraindications.

## NERVES, LEG AND FOOT CIRCULATION



High blood glucose levels can increase the risk of reduced sensation in your hands and feet. If the blood vessels to the feet become narrowed or blocked, fewer nutrients including oxygen will reach the nerves and tissues. This can increase the risk of developing non-healing wounds and in some cases increase the risk of amputation.

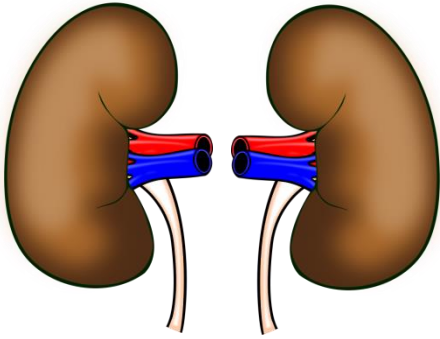
Take care of your feet and check them daily.

See your practice nurse for your annual diabetes review which includes a foot check.



Visit [www.diabetes.org.uk](http://www.diabetes.org.uk) for further foot care advice.

# KIDNEYS



Too much glucose in the blood can damage your kidneys, which can cause kidneys to leak protein.

This may lead to kidney failure.

Keep your blood pressure and HbA1c at your target levels.

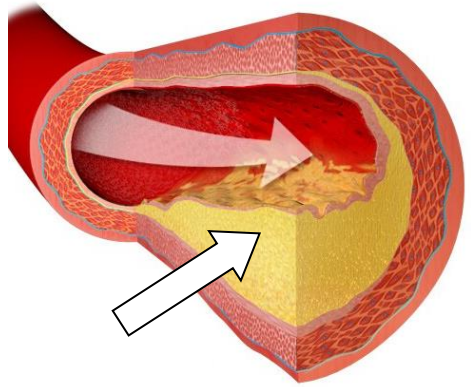
See your practice nurse for your annual diabetes review – this includes a urine and blood test for your kidneys.



# LARGE BLOOD VESSELS

Cholesterol is a type of fat found in the blood.

If cholesterol levels are too high it can cause a blockage in the blood vessel.



If a blood vessel is blocked this can lead to a heart attack or a stroke.

# HOW DO I REDUCE THE RISKS OF HEALTH COMPLICATIONS?

## Reaching target numbers

Healthy food choices  
& **sugar free** drinks



Physical activity








Take medication if prescribed



# MY TEST RESULTS

Please find the sheet with this table on it and also your most recent blood test results if you were sent them.

Date.....

Test	RESULT	TARGET
 Blood Pressure		↓ 140 / 90 or lower <small>(target may be lower with certain conditions)</small>
 Total Cholesterol		↓ 4.0 or lower
 HDL (good fat)		↑ 1.0 (male) or lower 1.3 (female)
LDL (bad fat)		↓ 2.0 or lower
 Waist Circumference*		↓ Male 94cm / 37" or lower <small>African, Caribbean, South Asian, Chinese or Japanese origin males &lt; 90cm / 35.4"</small> Female 80cm / 31.5" or lower
 HbA1c (blood glucose)		↓ 53mmol/mol or lower

\* [www.bhf.org.uk/informationsupport/heart-matters-magazine/medical/measuring-your-waist](http://www.bhf.org.uk/informationsupport/heart-matters-magazine/medical/measuring-your-waist)

# **TARGETS: What should I be aiming for**

## **CHOLESTEROL**

Total cholesterol less  
than 4.0mmols/L



### **HDL Cholesterol (Happy)**

Greater than 1.0mmols/L    Men

Greater than 1.3mmols/L    Women

### **LDL Cholesterol (Lousy)**

Less than 2.0mmols/L

## BLOOD PRESSURE

Less than  $\frac{140}{90}$  mm/Hg

If blood pressure is too high this puts extra strain on the arteries and the heart. High blood pressure could cause a heart attack or stroke.



For those with other health conditions a blood pressure target of  $\frac{130}{70}$  mm/Hg may be suggested by their health professional.

## HbA1c 48-53mmol/mol

The HbA1c measures how much glucose has stuck to the red blood cells over a 3 month period.



# DIABETES MEDICATION

- Do you take any tablets for your diabetes?
- Do you know how they work?
- Do you know when to take your tablets?
- Who could help you if you are having problems with your medication?



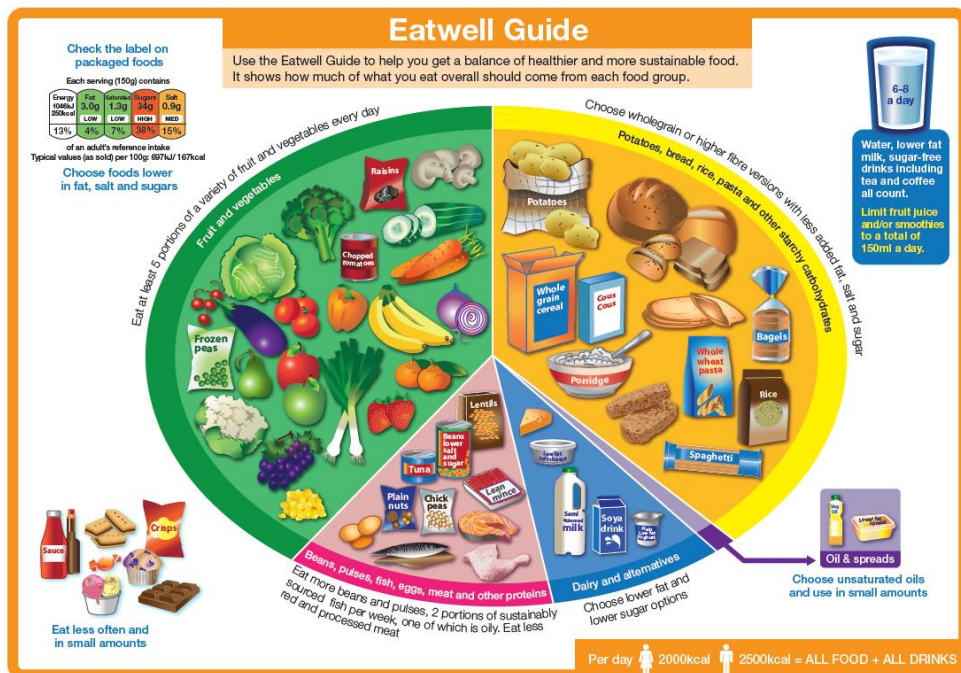
## OPTIONAL COMFORT BREAK



Please use this time to collect some foods/food packets from your kitchen if you would like to discuss these in the next section.



# WHAT SHOULD I EAT IF I HAVE DIABETES?



Source: Public Health England in association with the Welsh Government, Food Standards Scotland and the Food Standards Agency in Northern Ireland

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Diabetes UK website for more information about food.

[www.diabetes.org.uk/guide-to-diabetes/enjoy-food/eating-with-diabetes](http://www.diabetes.org.uk/guide-to-diabetes/enjoy-food/eating-with-diabetes)

or telephone 0800 585 088 to order your free copy of "Eating well with diabetes".



# GUESS THE CARBOHYDRATE CONTENT



Cola



Diet Cola



1 egg



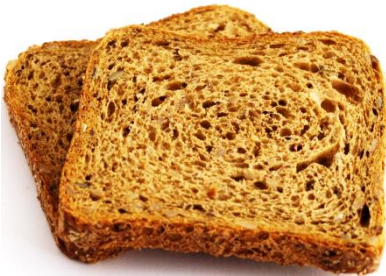
1 orange



3 tablespoonfuls  
of boiled rice



200ml carton  
of orange juice



2 slices of wholegrain  
seeded bread



a palm-sized  
jacket potato

# FATS



**Saturated  
Fats**



**Unsaturated  
Fats**



Which has the most calories?

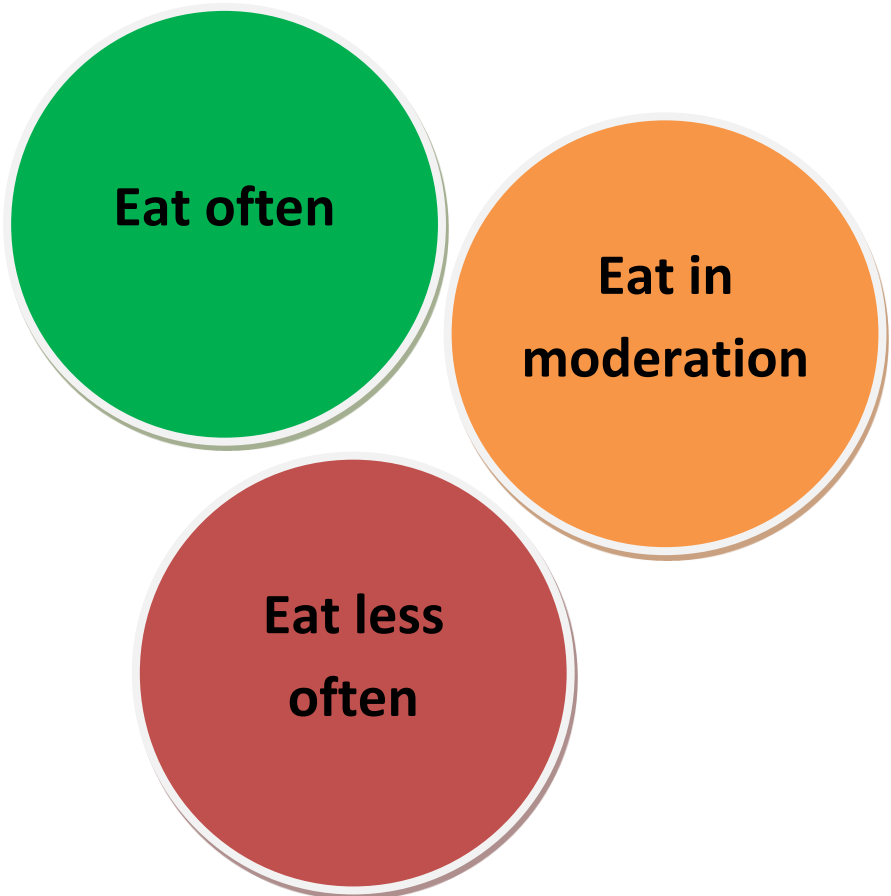
100g saturated or 100g unsaturated fat?



# **WHAT SHOULD I EAT IF I HAVE DIABETES?**

Think of some foods that you like to eat or eat regularly.

Where would you place them below?



## CURRENT PHYSICAL ACTIVITY RECOMMENDATIONS

**Frequency:** every week

**Intensity:** moderate

**Time:** 150 minutes

**Type:** aerobic



**+ Muscle strengthening:** twice per week



# HOW TO REDUCE RISKS OF DAMAGE TO THE BODY

- Reaching targets for blood pressure, cholesterol and HbA1c.
- Attend your yearly diabetes review and 3-6 monthly blood test.
- Keep active and keep a healthy weight.
- Reduce fats especially saturated fat (this will reduce cholesterol).
- Reduce salt (reduce blood pressure).
- Reduce sugars/portion control with starchy foods.
- Importance of vegetables and fruit daily.
- Try to have at least 2 portions of fish per week.
- Reduce alcohol and stop smoking.



## My Diabetes Change Plan

Name: \_\_\_\_\_

**What am I going to do to improve my health?**

**How exactly am I going to do this?**

**What might stop me?**

**What will I do to overcome these barriers?**

**When will I review my plan?**

# DO YOU HAVE ANY FURTHER QUESTIONS TO ASK ABOUT YOUR DIABETES?

Further information can be found.....

- Your Pharmacy
- GP / Practice Nurse
- **MyDESMOND.com**
- **Diabetes UK** 0345 123 2399 or [www.diabetes.org.uk](http://www.diabetes.org.uk)
- ESTA (excluding Chiltern Vale and Leighton Buzzard)
- MoreLife [www.more-life.co.uk](http://www.more-life.co.uk)
- Lifestyle Hub  
[www.bedfordshirehospitals.nhs.uk/lifestyle-hub-bedford-hospital](http://www.bedfordshirehospitals.nhs.uk/lifestyle-hub-bedford-hospital)
- Bedfordshire Wellbeing Service  
<https://bedfordshirewellbeingservice.nhs.uk>

**Bedfordshire Wellbeing Service**  
*Making a positive difference through Talking Therapies*

**DiABETES UK**

**MORE** *Life*



# EVALUATION FORM

Please complete the enclosed evaluation form and return either:

## **Via post**

Diabetes Education Team, Bedford Hospital, 1<sup>st</sup> Floor  
Bridge House, Kempston Road, Bedford, MK42 9DJ

## **Via e-mail**

[bhn-tr.icdsstructurededucation@nhs.net](mailto:bhn-tr.icdsstructurededucation@nhs.net)

## **Or verbally complete**

at end of the session with your educator

**Thank you**  
**The Bedfordshire Diabetes Education Team**  
**01234 730428**