

# Prediabetes online programme

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Created by the Waterside Primary Care Network  
Health and Wellbeing Team

*Some information taken from: [diabetes.org.uk](https://www.diabetes.org.uk)*



# Waterside PCN

# Prediabetes online programme content



Waterside PCN

**Part 1 – An introduction to prediabetes**

**Part 2 – Weight management and physical activity**

**Part 3 – Healthy eating and portion control**

**Part 4 – Understanding food labels**

**Part 5 – Stress, mood and sleep**

**Part 6 – Understanding cholesterol**

**Part 7 – Understanding hypertension**

**Part 8 – Keeping a healthy lifestyle going**

# Part 1- Introduction to Prediabetes

## Part 1 content:

- **What is prediabetes**
- **Diabetes blood tests and diagnoses**
- **Role of glucose (sugar) and insulin**
- **Understanding prediabetes/insulin resistance**
- **Importance of lifestyle changes to reduce risk of developing type 2 diabetes**
- **Different types of diabetes - Type 1 & Type 2)**
- **Type 2 diabetes - symptoms and causes**
- **Type 2 diabetes - risk factors**
- **Focus of the week**



Waterside PCN

# What is prediabetes?

**Prediabetes means that your blood sugars are higher than usual, but not high enough for you to be diagnosed with type 2 diabetes.**

**It also means that you are at high risk of developing type 2 diabetes. You are unlikely to be experiencing any symptoms with prediabetes.**

Prediabetes is also sometimes called borderline diabetes. Higher than normal blood sugars can be detected via blood tests.

The medical terms for higher-than-normal blood sugars are:

- Impaired Fasting Glucose (IFG)
- Impaired Glucose Tolerance (IGT)
- Impaired Glucose Regulation (IGR)
- Non-diabetic hyperglycaemia

# Blood tests to diagnose diabetes

## HbA1c

Measures your average estimated blood sugar levels over the past 3 months period.

**NORMAL**

31-41 mmol/mol

**Pre Diabetes/At Risk**

42-47 mmol/mol

**Type 2 Diabetes**

48+ mmol/mol



## Fasting plasma glucose Test (FPG)

Measures blood sugar when you haven't eaten anything for at least 8 hours

**NORMAL**

Below <5.5 mmol/l

**Pre Diabetes/At Risk  
(Impaired Fasting  
Glucose)**

5.5 – 6.9 mmol/l

**Type 2 Diabetes**

Above > 7.0mmol/l



These tests are a mix of fasting or non-fasting and they all help your healthcare team to understand your risk of developing type 2 diabetes.

So, if you've been told you have any of these, knowing this is the first step to being able to do something about it. And for many people there are things you can do to reduce your risk of type 2 diabetes.

### **Diagnosing prediabetes**

If you're worried about prediabetes you could call your GP surgery and ask for a blood test. The most common test will be checking your HbA1c levels which is your average blood glucose (sugar) levels for the last two to three months. If your HbA1c level is between 42mmol/mol (6%) – 47mmol/mol (6.4%) this means it is higher than normal and you are at risk of developing type 2 diabetes.



The food we eat such as:

- White Bread
- White Pasta
- White Rice
- Potatoes
- Sweets
- Chocolate

Contain 'Carbohydrates'

After we eat food containing 'Carbohydrates' it gets digested and breaks down into 'GLUCOSE' (sugar)

GLUCOSE (sugar) provides the body and brain with the energy we need to carry out everyday mental and physical tasks

In the same way a car uses petrol for fuel - our body uses glucose as fuel in order to carry out daily activities.

# Prediabetes symptoms

**Prediabetes doesn't have any symptoms. If you start to have any of the symptoms of type 2 diabetes it means you have probably already developed it.**

**So, it's important to know the risk factors and what support is available to help you prevent or delay type 2 diabetes.**

**A lot of people don't get any symptoms when it comes to type 2 diabetes, or don't notice them.**

But you may notice:

- going to the toilet more often, especially at night
- feeling more tired, because your body can't get enough glucose in to your cells for energy
- losing weight without trying
- genital itching or thrush
- cuts and wounds taking longer to heal
- blurred vision
- feeling extremely thirsty.



# Common Symptoms of Type 2 Diabetes



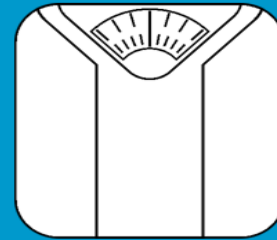
Frequent urination



Excessive thirst



Increased hunger



Weight loss



Tiredness



Lack of interest and concentration



Numbness in the hands or feet



Blurred vision



Frequent infections



Slow-healing wounds

Image taken from ACCU-Check

<https://www.youtube.com/watch?v=X9ivR4y03DE>

Watch this video  
to understand  
more about  
diabetes

## Type 1 Diabetes (Autoimmune Condition)

- In Type 1 Diabetes the Pancreas **DOES NOT** produce any insulin, as there is no key (Insulin) to unlock the cell doors.
- Causes of Type 1 Diabetes is unknown but develops when the immune system mistakenly destroys the cells in the pancreas that produces insulin.
- Must take Insulin daily to survive
- Usually diagnosed in children and young adults and risk increases if a parent or sibling has Type 1 Diabetes.
- Around 8% of people with diabetes have type 1 diabetes in the UK.



## Type 2 Diabetes

- In Type 2 Diabetes the body cells do not respond to insulin (key) properly (Known as Insulin Resistance) OR the pancreas is **UNABLE** to produce enough insulin to manage and control blood sugar levels.
- Age, sedentary lifestyle, overweight/obesity, family history, and poor food choices can raise the risk of developing type 2 diabetes.
- Type 2 Diabetes can be managed by lifestyle changes, medication and even Insulin (if lifestyle changes and medication don't achieve targeted blood sugar levels).
- Around 90% of people living with diabetes in the UK have Type 2 Diabetes in the UK.



# Causes of Type 2 Diabetes

Type 2 diabetes happens because insulin can't work properly, so your blood sugar levels keep rising.

This means more insulin is released. For some people with type 2 diabetes this can eventually tire the pancreas out, meaning their body makes less and less insulin. This can lead to even higher blood sugar levels.

## Diabetes Risk Factors

About 90% of people with diabetes have type 2 diabetes. It can come on slowly, usually over the age of 40.

The signs may not be obvious, or there may be no signs at all, therefore it might be up to 10 years before you find out you have it!

That's why it's very important to know the diabetes risk factors.

# Do you know the risks?

You're more at risk if you're white and over 40, or over 25 if you're African-Caribbean, Black African, or South Asian.

You're two to six times more likely to get type 2 diabetes if you have a parent, brother, sister or child with diabetes.

Type 2 diabetes is two to four times more likely in people of South Asian descent and African-Caribbean or Black African descent.

You're more at risk if you've ever had high blood pressure.

You're more at risk of type 2 diabetes if you're carrying extra weight, especially if this weight is around your middle.

Do you know  
your own risk  
factors?

Make a note of your own personal risk factors on the next page to see which risk factors you could work towards changing.



TYPE 2 DIABETES RISK FACTORS	DOES THIS RISK FACTOR APPLY TO YOU? (Y/N)	CAN YOU CHANGE THIS RISK FACTOR? (Y/N)
AGE		
ETHNICITY		
STRESS (ANXIETY & DEPRESSION)		
FAMILY HISTORY		
POOR SLEEPING HABITS		
GESTATIONAL DIABETES		
ALCOHOL CONSUMPTION		
HIGH CHOLESTEROL		
HIGH BLOOD PRESSURE		
PHYSICAL INACTIVITY		
OVERWEIGHT/OBESITY (WEIGHT AROUND THE MIDDLE)		
SMOKING		



# Know your risk

You are more at risk of developing type 2 diabetes if some or all the risk factors apply to you.

**Know Your Risk online tool** only takes a couple of minutes to complete. If your results show that you are at moderate or high risk, you could be eligible for a free place on the Healthier You: NHS Diabetes Prevention Programme in England.

You may also be eligible for a free **NHS Health Check** which will check for health conditions including type 2 diabetes.

# Preventing type 2 diabetes

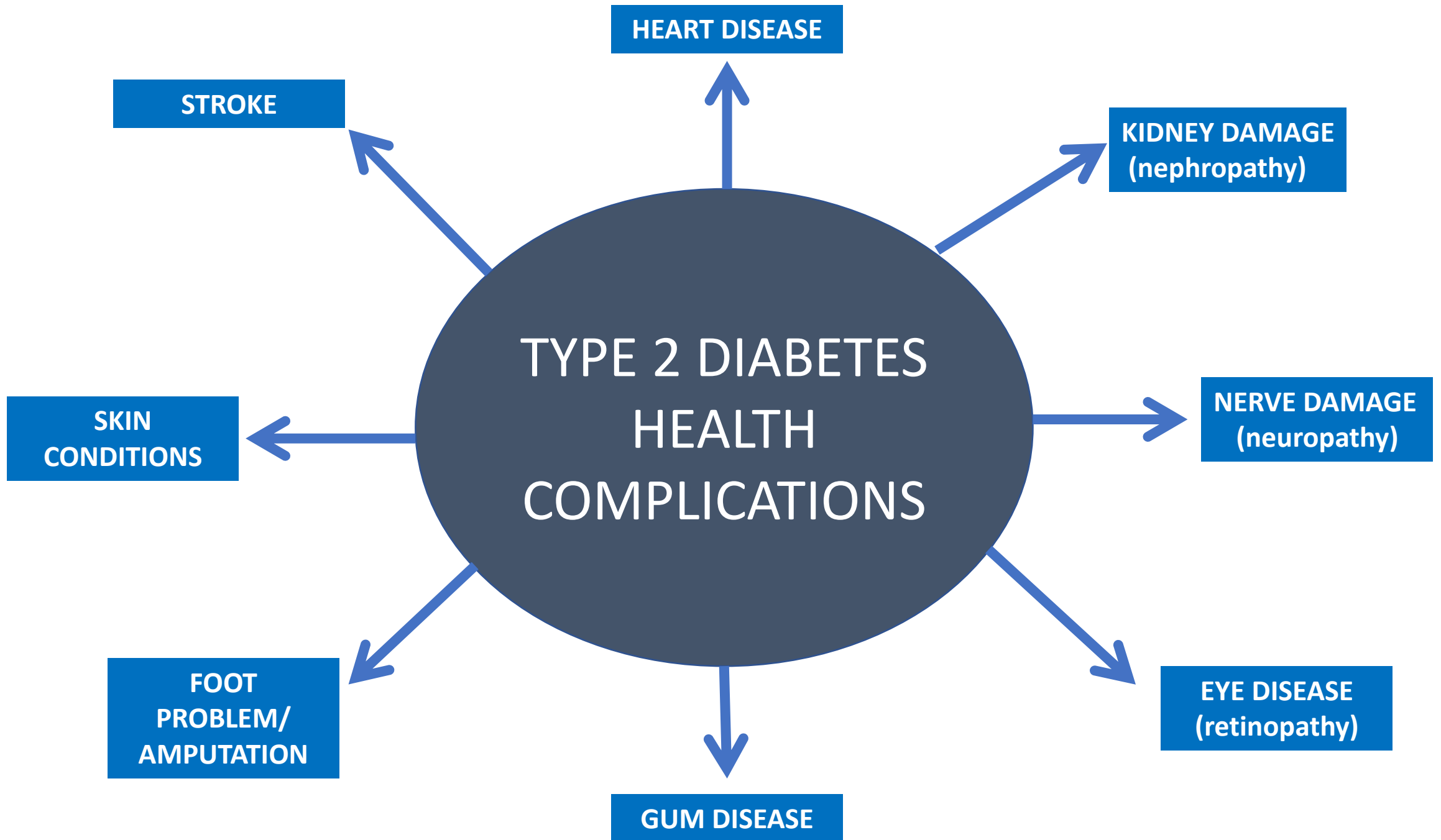
13.6 million people in the UK are at risk of developing type 2 diabetes, and type 2 diabetes is serious.

There's currently nothing we can do to prevent type 1 diabetes. But researchers are working hard to understand the immune response and what triggers it.

We do know research has consistently shown that for some people, combined lifestyle interventions - including diet, physical activity and sustained weight loss - can be effective in reducing the risk of type 2 diabetes by about 50%.

Type 2 Diabetes is a long term health condition. If blood sugar levels continue to remain high it could lead to the serious health complications detailed on the next page.





HEART DISEASE

STROKE

KIDNEY DAMAGE  
(nephropathy)

TYPE 2 DIABETES  
HEALTH  
COMPLICATIONS

NERVE DAMAGE  
(neuropathy)

SKIN  
CONDITIONS

EYE DISEASE  
(retinopathy)

FOOT  
PROBLEM/  
AMPUTATION

GUM DISEASE

# How can I reduce my risk of type 2 diabetes?

**You've just found out that you're at risk of developing type 2 diabetes, but you don't have it yet.**

**That's the good news. It means that you now have the chance to make changes that can delay or prevent type 2 diabetes.**

Continue working through the rest of the programme to learn how you can reduce your risk of type 2 diabetes.

You have nothing to lose, but everything to gain.

# Focus of the week

Have a look at the risk factors below and write down which ones apply to you. Put 'yes' in the box if you can change it, or 'no' if you cannot change it. Consider which ones you want to focus on.

Risk Factor	Is this a risk factor for you? (Y/N)	Can you change this risk factor? (Y/N)
Age (65+)		
Overweight		
Ethnicity		
Salt intake		
Smoking		
Medication		
Family history		
Stress		
Alcohol consumption		
Poor sleeping habits		
Physical inactivity		

Which risk factors are you going to focus on changing?

