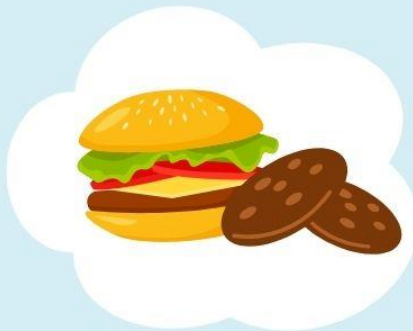


Supporting You to Reduce Your Risk of Developing Type 2 Diabetes



Agenda Setting

What would you find it helpful to discuss today?



**Something
Else**



Food and Drink



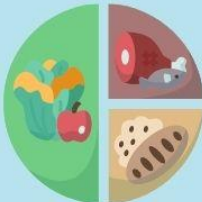
Smoking



My Weight



Sleep



Portion Sizes



Activity Levels



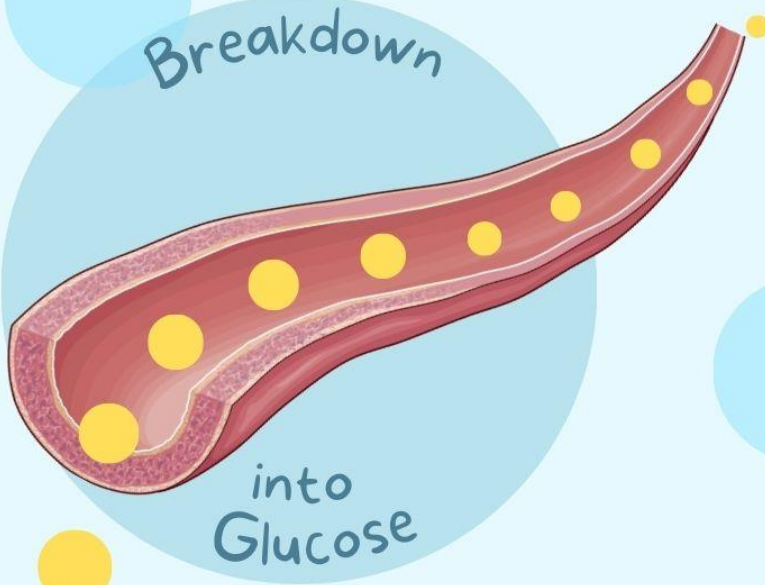
Stress



Alcohol

What is Going On In The Body?

When we eat foods containing carbohydrates, they are broken down into glucose and used in the cells to produce energy



Insulin Unlocks the cell

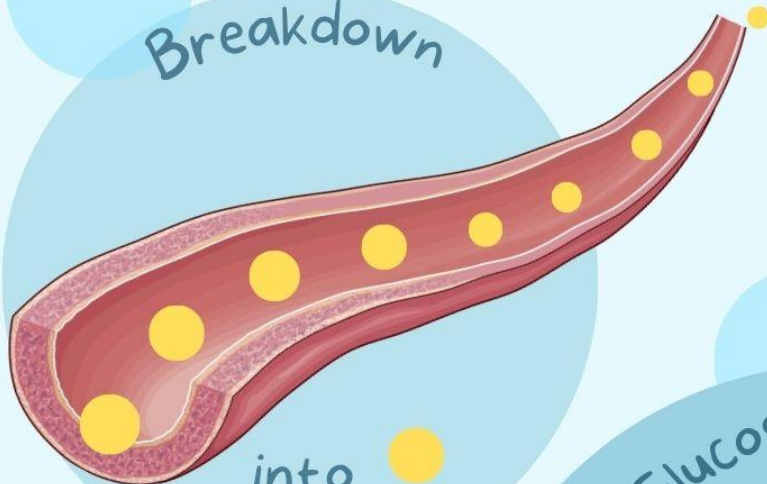
What is Prediabetes?

When blood glucose levels are higher than normal (HbA1c=42-47mmol/mol), placing someone at high risk of type 2 diabetes



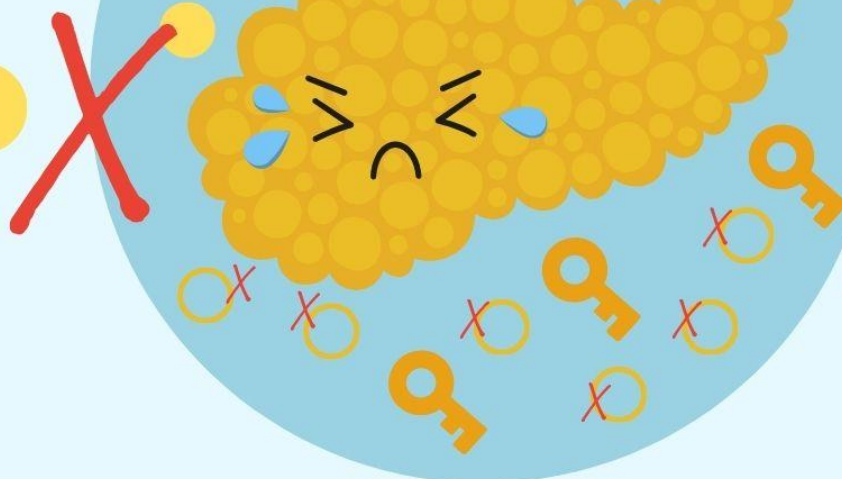
Carbohydrate Foods

Breakdown



into Glucose

Glucose Builds Up



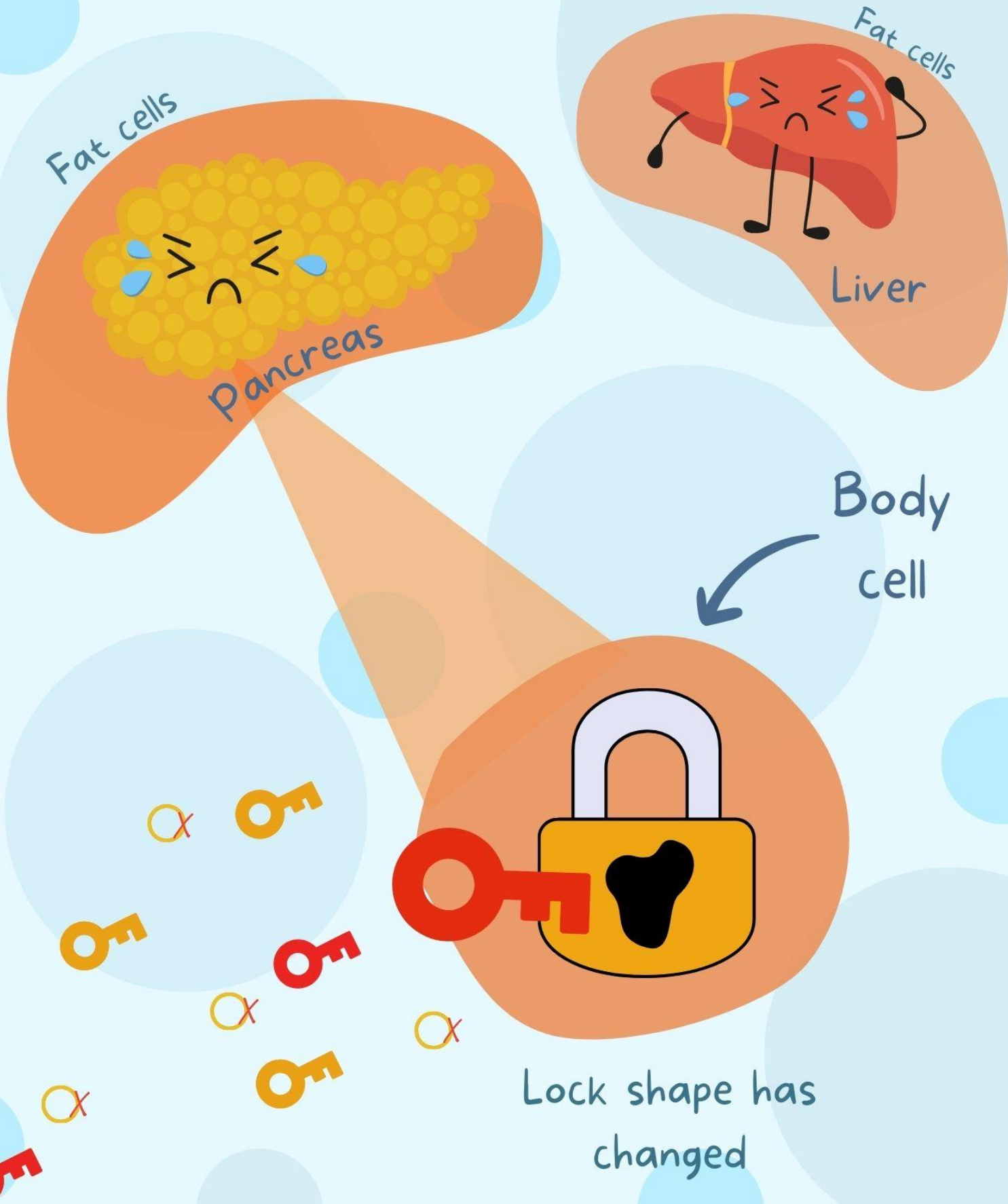
Making it harder for glucose to be used for energy



As the cell or lock shape has changed

What is Insulin Resistance?

Our body fat can surround our organs, changing the shape of our cells and making the insulin (keys) harder to fit the lock (cell). This is known as insulin resistance and causes blood glucose levels to rise, potentially contributing to type 2 diabetes, long-term.



Are There Symptoms?

Many people who are at high risk of developing type 2 diabetes may not experience any symptoms at all, and some people may only experience them following a meal high in carbohydrate.



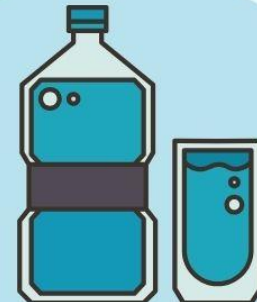
**Increased frequency
& urgency**



**Feeling more tired
than usual**



**Poor wound
healing**



**Feeling very
thirsty**



**Unexplained
weight loss**



**Recurrent thrush or
water infections**

Why Prevent Type 2 Diabetes?

Reduced quality of life



Frequent diabetes monitoring



Increased risk of other conditions



Mental health burden



Risk of complications



More medical appointments



Additional medications

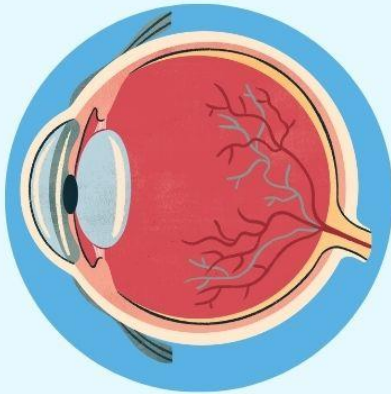


Medication side effects



Diabetes Complications

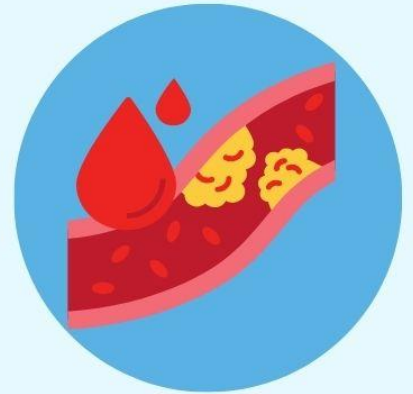
If diabetes is not managed, it can lead to long-term complications such as those below.



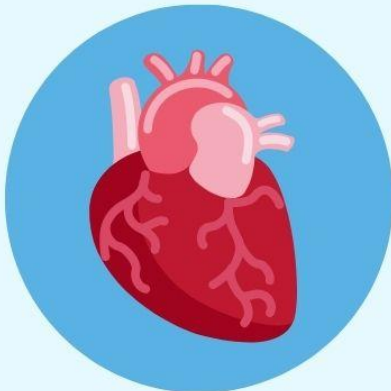
Diabetic Retinopathy



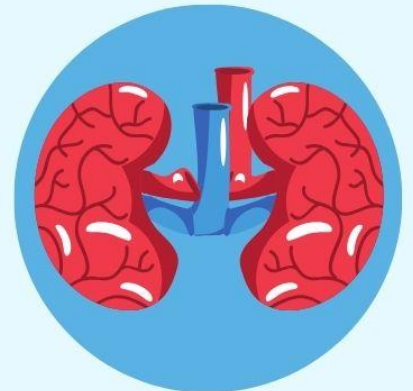
Dementia



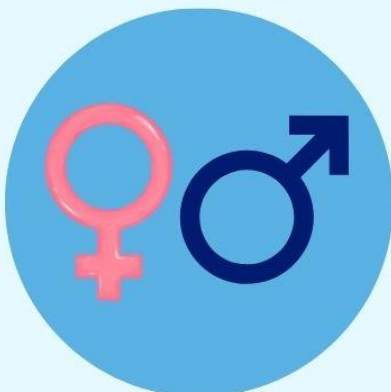
Raised Cholesterol



**Heart Disease
Stroke**



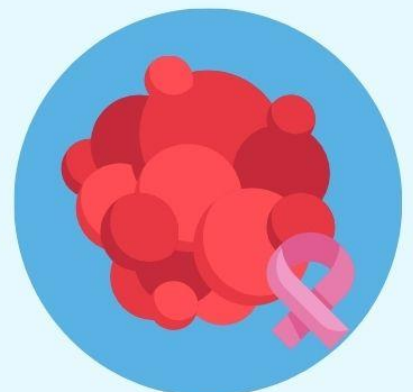
Kidney Disease



Sexual Problems



Nerve Damage

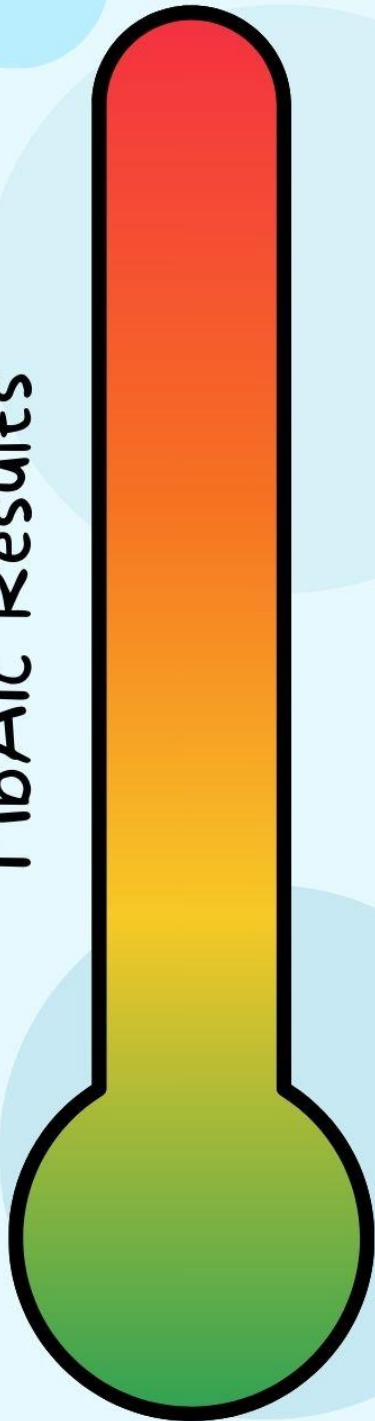


Cancer

What is HbA1c?

HbA1c is the measure of blood glucose level management over an approximate 3 month period. It is a blood test conducted by the GP surgery or hospital.

HbA1c Results



Type 2 Diabetes

>48 mmol/mol

At higher risk of type 2 diabetes

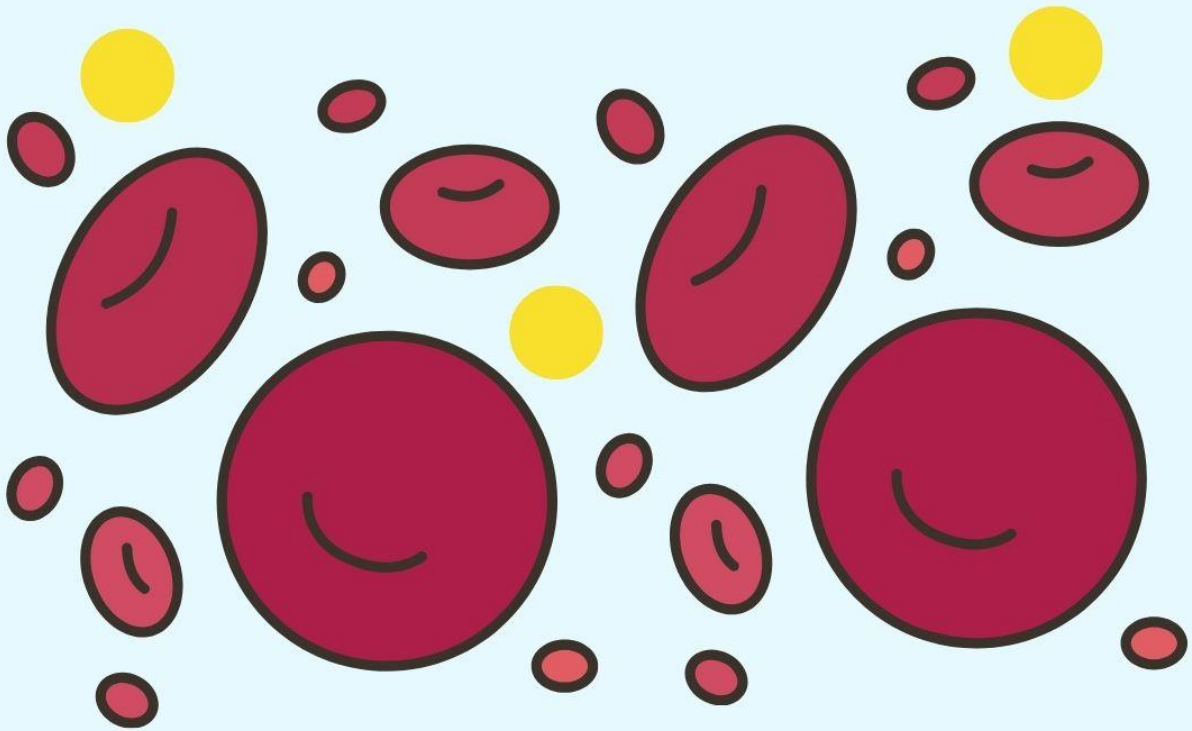
42 - 47 mmol/mol

Normal Range

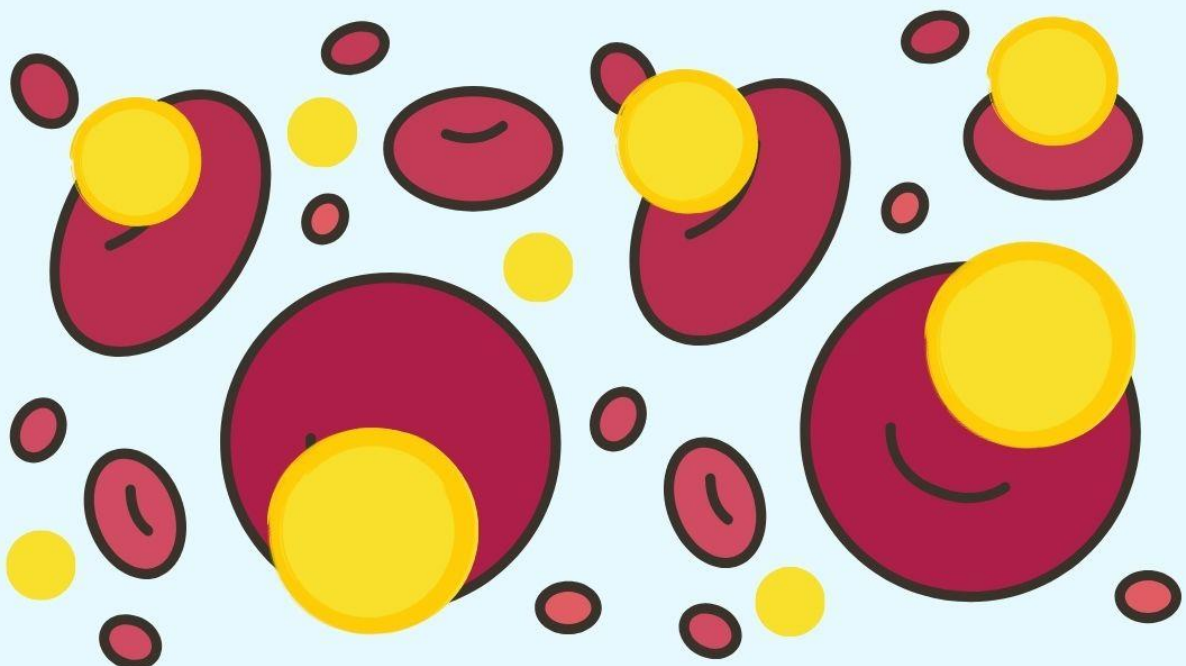
<42mmol/mol

What is an HbA1c Test?

HbA1c is the measure of blood glucose level management over an approximate 3 month period. It is a blood test conducted by the GP surgery or hospital.



Lower HbA1c



Raised HbA1c

What are the Risk Factors for Prediabetes?

Prediabetes



Can't Change

Age

Ethnicity

Family History

Gender

Can Change

Food Choices

Physical Activity

Smoking/ Alcohol

Weight

Stress

Sleep

Alcohol



Alcohol can raise blood glucose levels and contribute to weight gain. Guidelines suggest consuming less than 14 units/ week, with 2 non-consecutive alcohol free days.



2.4 units

Pint lager/beer/cider
(ABV 3.6%)

3 units

Pint lager/beer/cider
(ABV 5.2%)



2.4 units

Can of lager/beer/cider
(440ml, ABV 5.5%)



1.5 units

Small glass of red/white/rosé wine
(125ml, ABV 12%)

Bottle (750ml - 9 units)



1.7 units

Bottle of lager/beer/cider
(330ml, ABV 5%)



1 unit

Single small shot of spirits*
(25ml, ABV 40%)



1.5 units

Champagne (125ml)

*Gin, rum, vodka, whisky, tequila and sambuca

What are the Symptoms of Stress?

Chronic stress can have a detrimental impact on our blood glucose levels, leading to a rise in HbA1c, and potentially, diabetes.



- Trouble Sleeping
- Feeling Unwell
- Poor Immunity
- Digestive Problems
- Headaches
- Feeling Sad
- Anger/ Irritability
- Drugs/ Alcohol

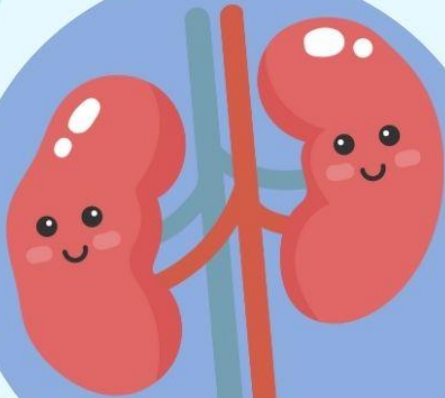
How Could Stress Impact Prediabetes?

Chronic stress can have a detrimental impact on blood glucose levels, leading to a rise in HbA1c, and potentially, diabetes.

Stress



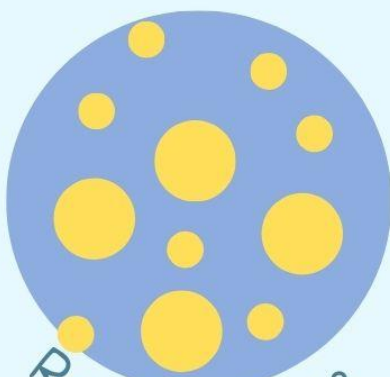
Fight or Flight



Kidney's signal stress hormone release



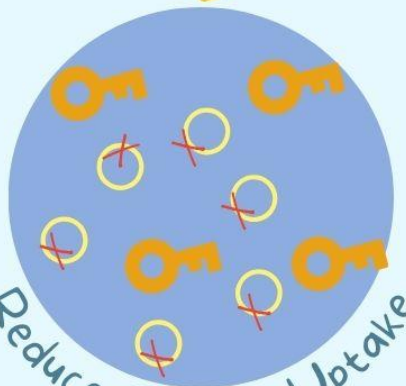
These act on the liver and



Release Glucose



Cause Insulin Resistance



Reduce Glucose Uptake

Sleep and Diabetes

ZZzzzz



**8 Hours Sleep
a Night**

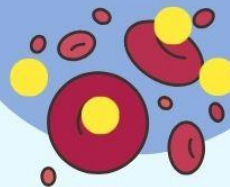
**< 6hrs
Sleep a
night**

**Disturbed
Sleep**

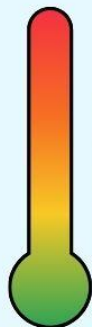
**Insulin
Resistance**



**Glucose
Intolerance**



**Increased
HbA1c**



- Increased appetite
- Weight gain
- Inflammation

What is a Healthy Weight?



BMI (Body Mass Index)	Category	BMI African, Asian and Caribbean Population
Under 20kg/m ²	<i>Underweight</i>	Under 20kg/m ²
20-25 kg/m ²	<i>Healthy Weight</i>	20-23 kg/m ²
25-30kg/m ²	<i>Above</i>	23-28 kg/m ²
30-35kg/m ²	<i>Recommended</i>	28-33 kg/m ²
Over 35kg/m ²	<i>Weight</i>	Over 33kg/m ²

Body Mass Index (BMI) is the measure of your weight in relation to your height.

Maintaining a Healthy Weight For You

If appropriate for you, did you know that 5% weight loss could help to reduce your type 2 diabetes risk.

Gradual weight loss of 0.5-1kg/ week or 1-2/week is recommended.



5%

Weight loss could help...

Improve insulin sensitivity

Reducing type 2 diabetes risk

Reduced high blood pressure risk

Reducing risk of associated comorbidities

Decreased cholesterol Levels

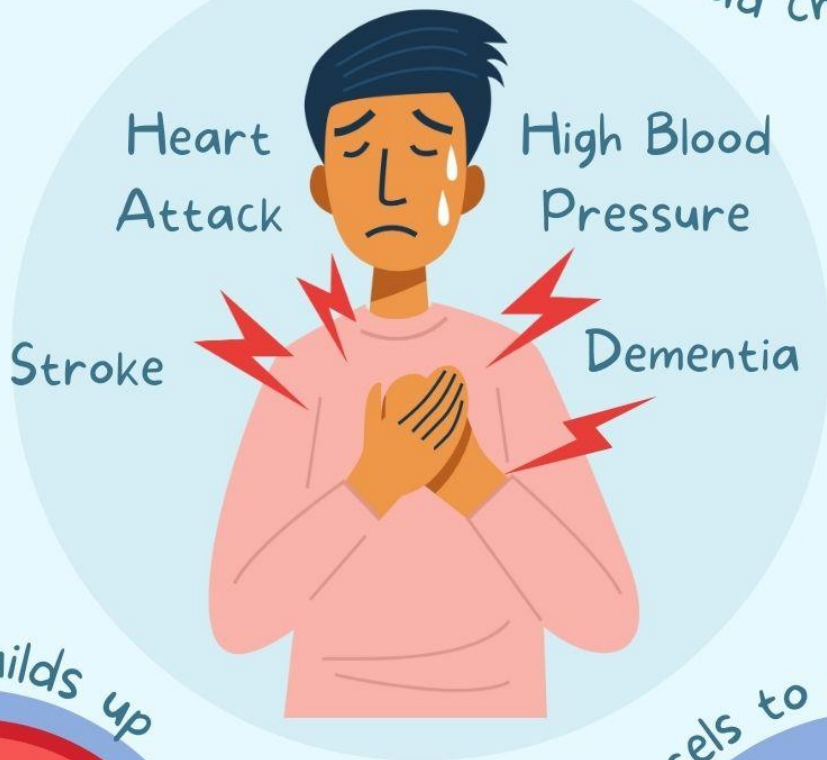
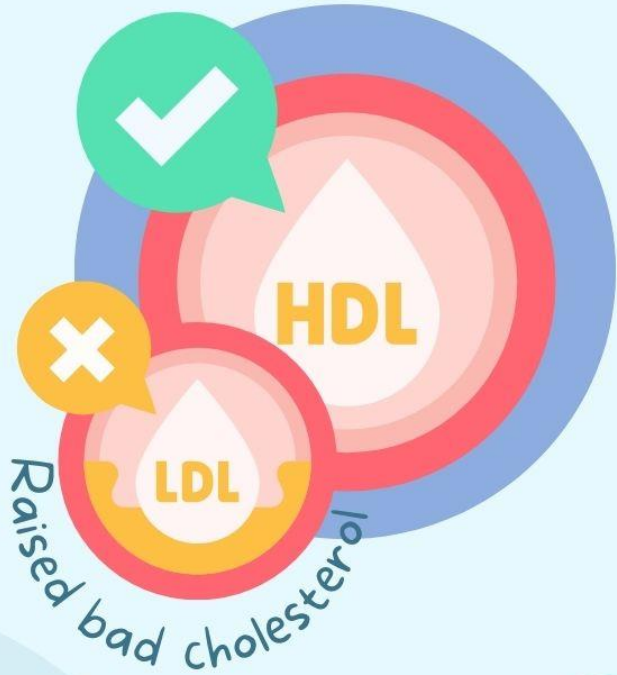
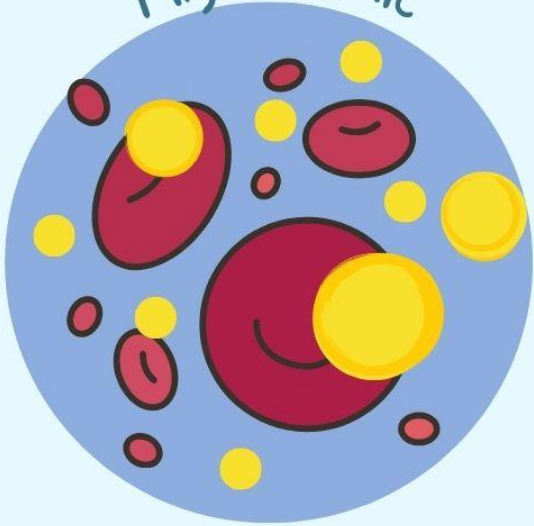
Reduced levels of LDL 'bad' cholesterol

Reduced heart disease and stroke risk

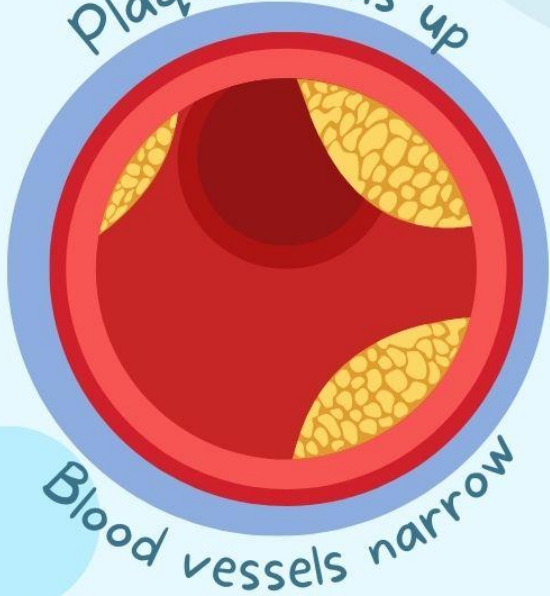
Prediabetes and Heart Health

Prediabetes can increase the risk of cardiovascular disease, caused by long-term raised blood glucose levels

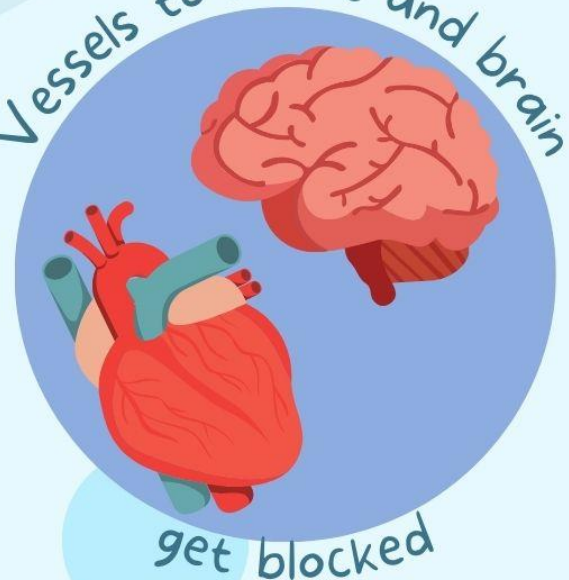
High HbA1c



Plaque builds up

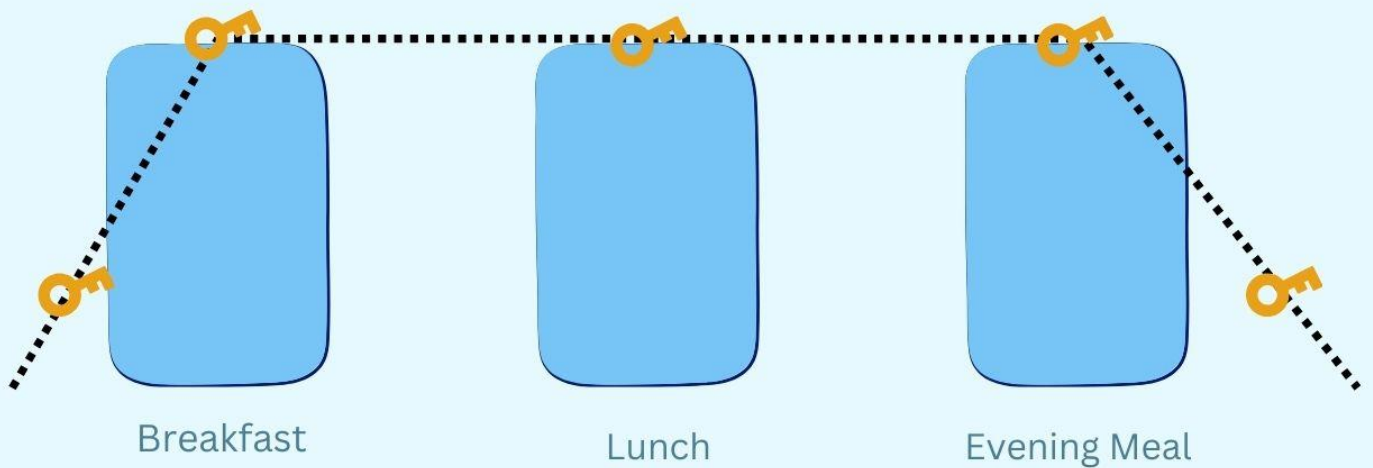


Vessels to heart and brain

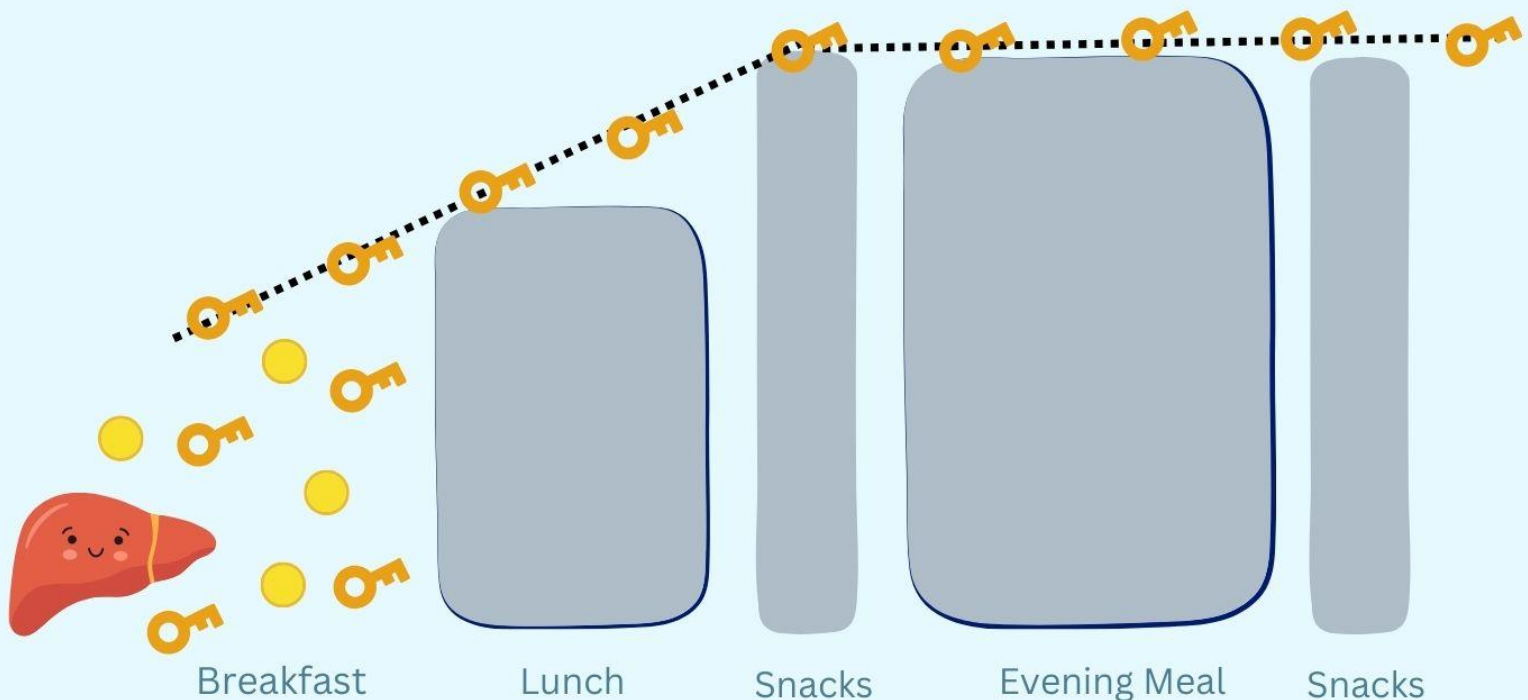


Are Regular Meals Important?

Consuming regular meals of the right proportions can be beneficial to managing our blood glucose levels and our overall health.



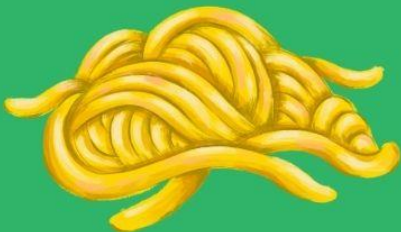
Regular Meals



Irregular Meals

CARBOHYDRATES

STARCH



NATURAL SUGARS



ADDED SUGARS



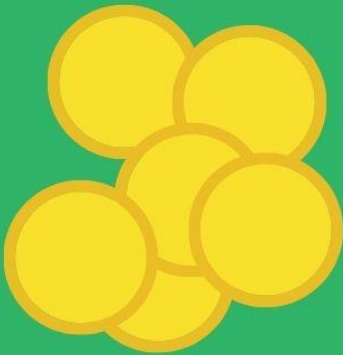
ALCOHOL



Glucose Release

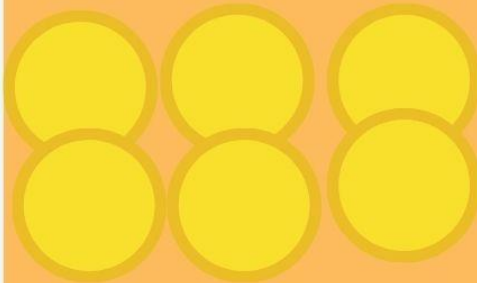
Carbohydrates are made up of glucose molecules and depending on the carbohydrate type, release the glucose at different speeds. Slower, starch-based, particularly wholegrain option foods give the pancreas time to release insulin.

STARCH



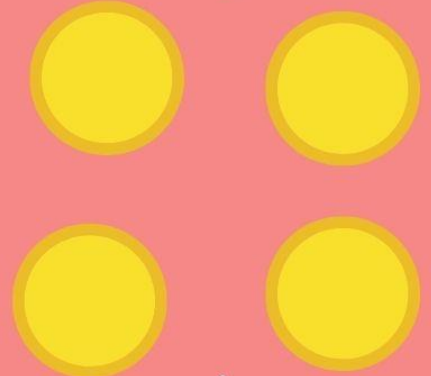
Slow Release

NATURAL SUGARS



Fast Release

ADDED SUGARS



Fast Release

The 'T' Plate

The 'T plate' can be a useful aid to weight management without the need to weigh and measure foods.

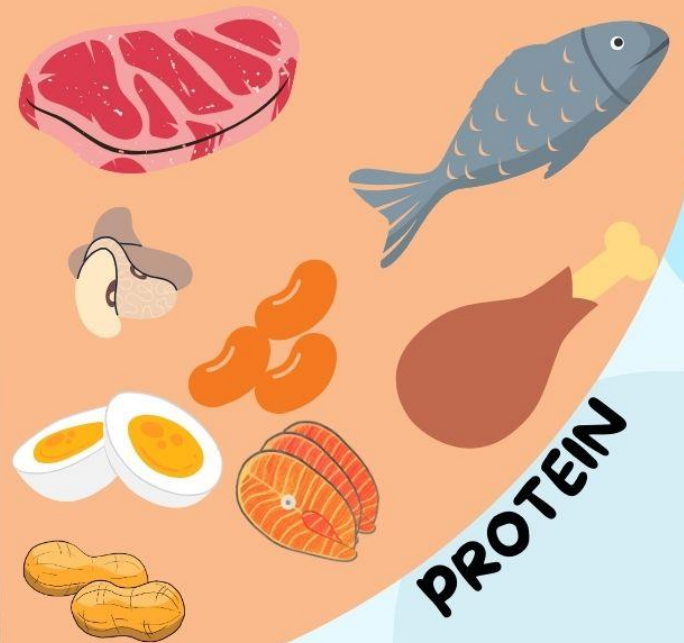
VEGETABLES & FRUIT



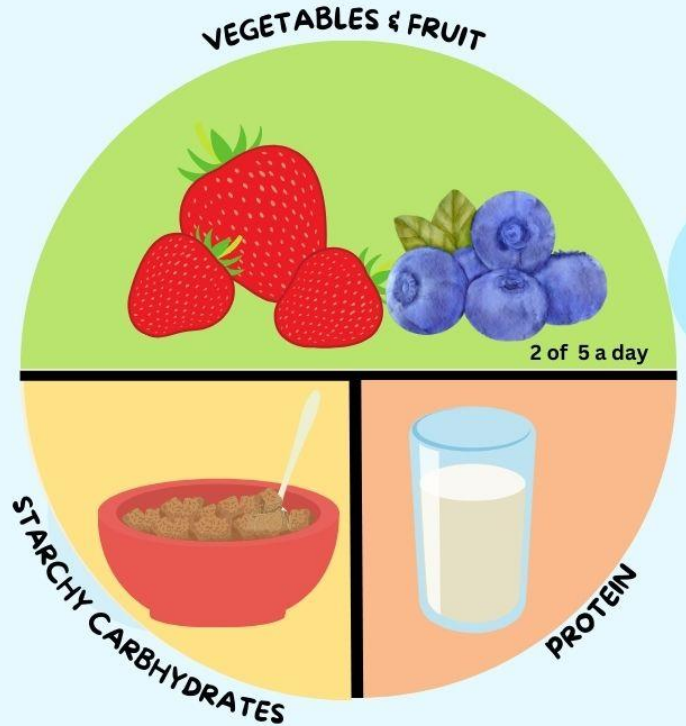
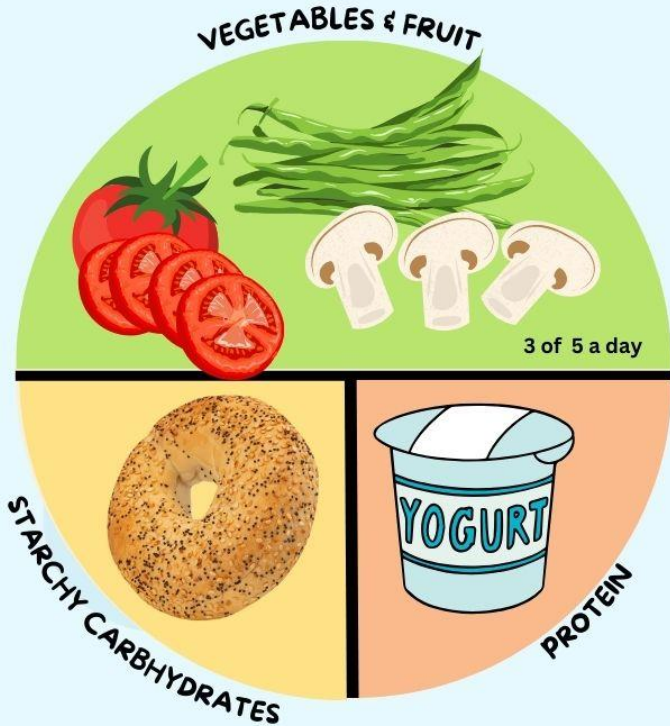
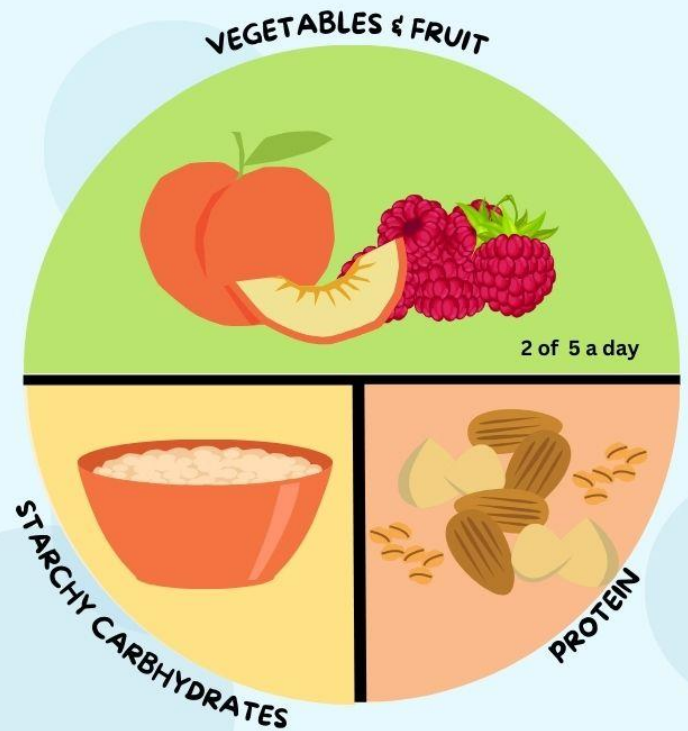
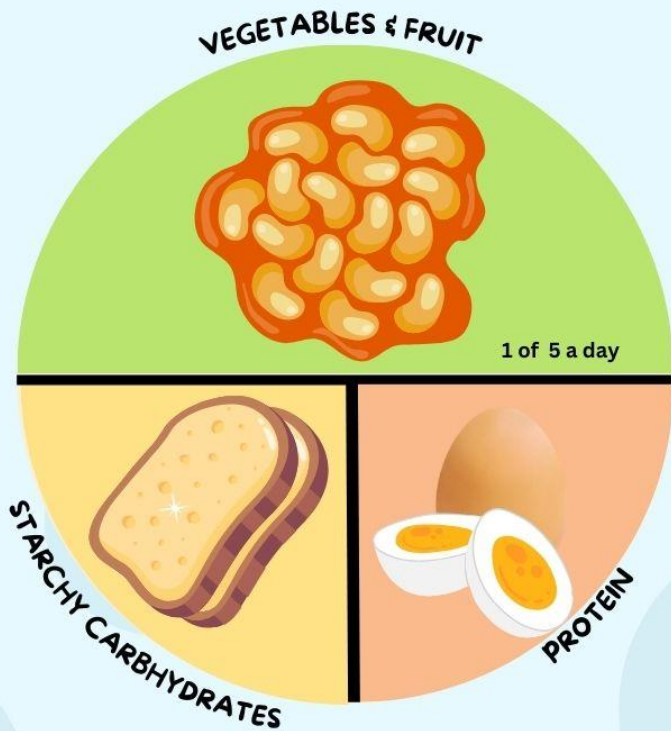
STARCHY CARBOHYDRATES



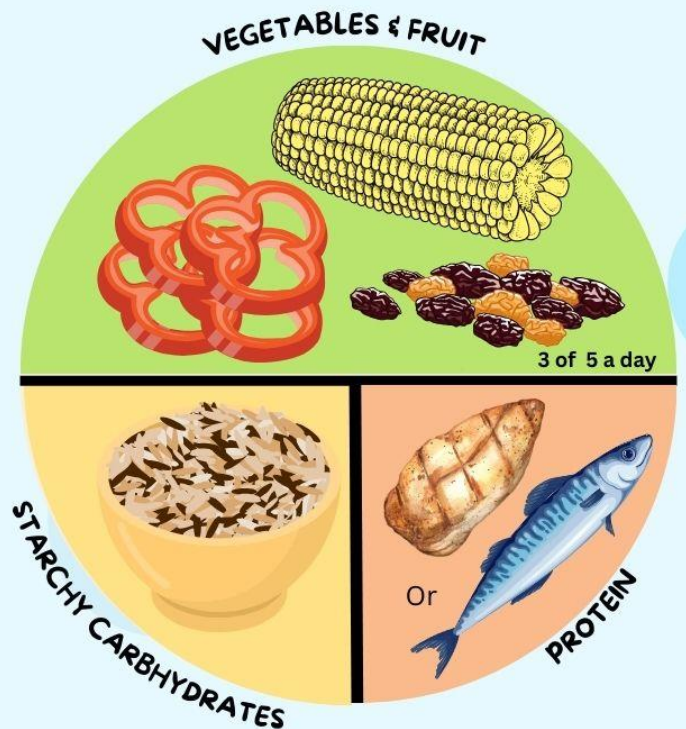
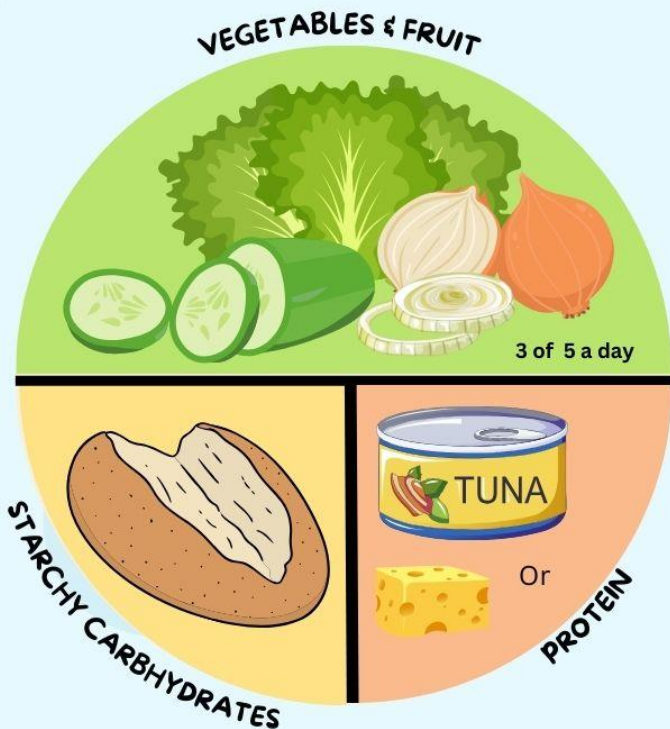
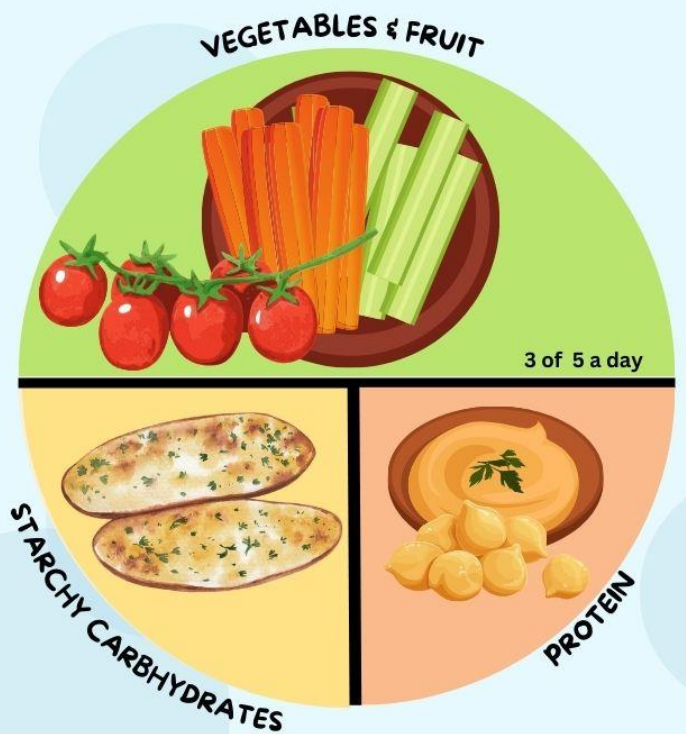
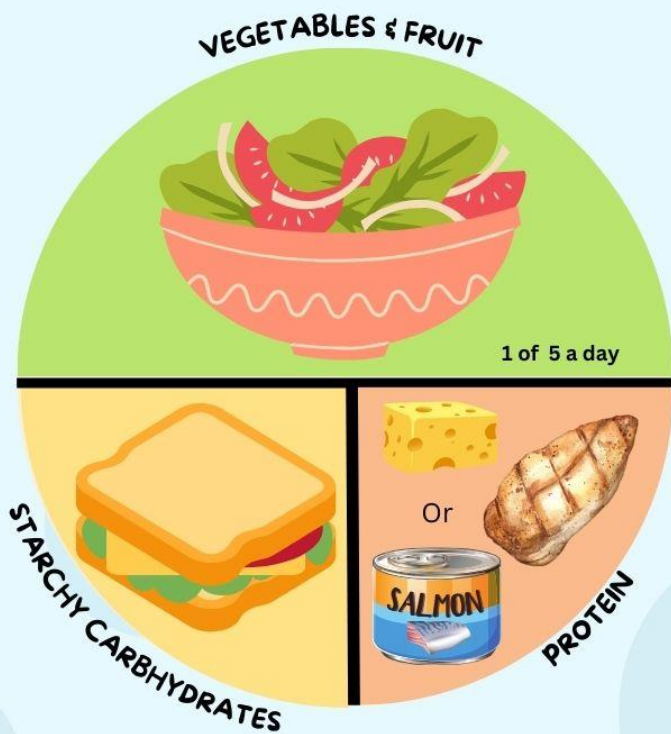
PROTEIN



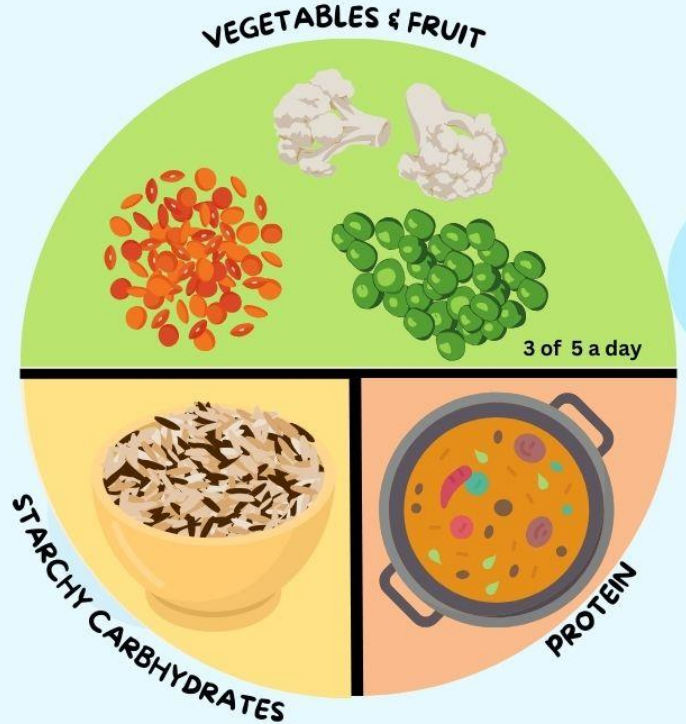
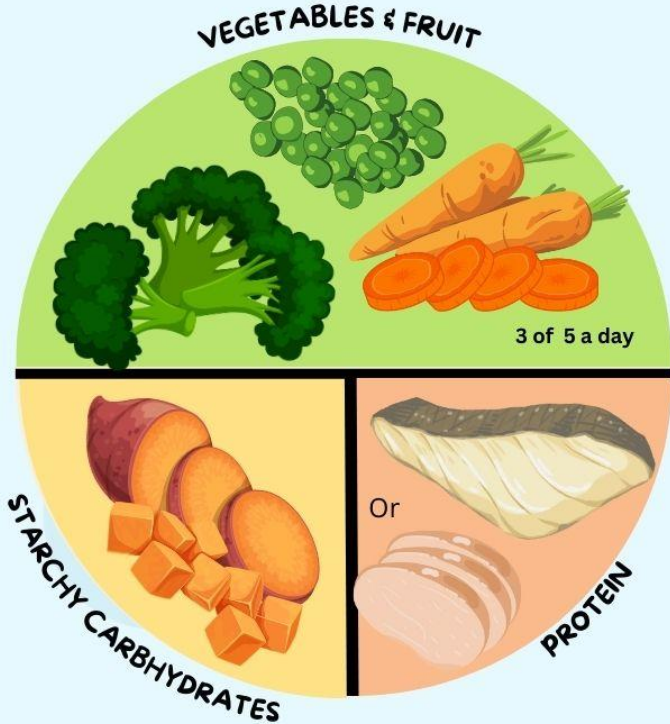
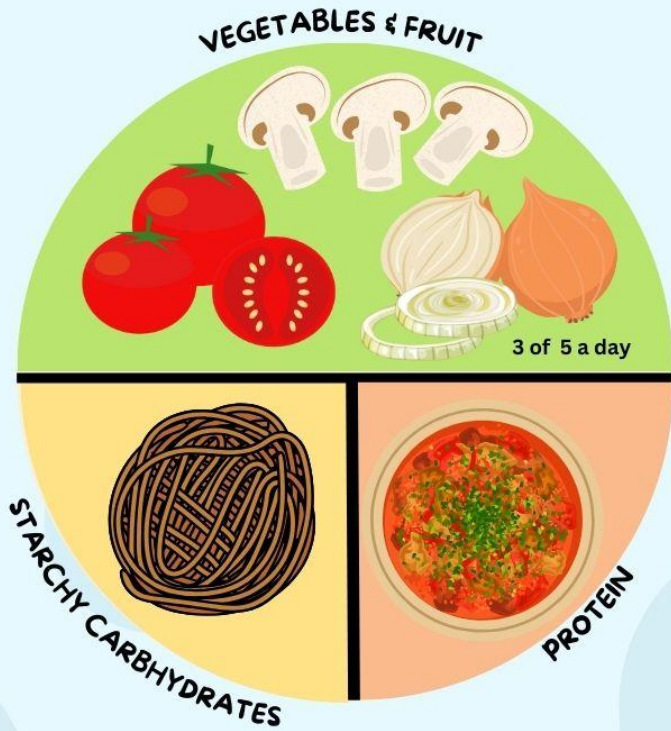
Breakfast Time Meal Examples of the 'T' Plate



Lunch Time Meal Examples of the 'T' Plate



Evening Meal Examples of the 'T' Plate



What is a Portion?

A portion helps us know how much of a food we are eating, in a standardised way. Being aware of our portions can help with our health and also weight management.

**Carbs,
Red Meat
& Beans**

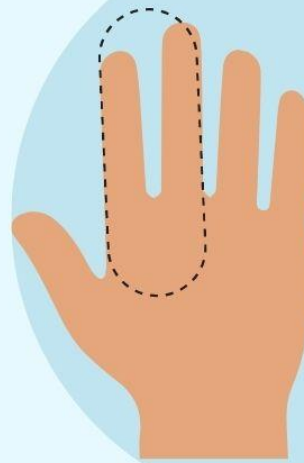


**White
Fish or
Chicken**

**Spreads
or Oils**



Top Tip:
Opt for plant based
types



Cheese

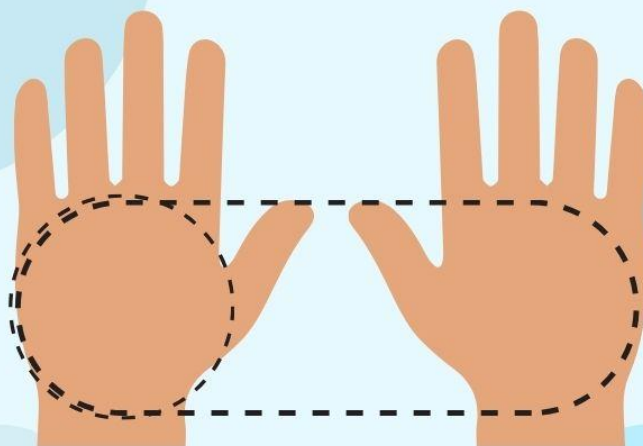


Top Tip:
Opt for reduced fat

Fruit



Top Tip:
Fresh, tinned
& Frozen count



Vegetables



Top Tip:
Add to meals to
meet your 5-a-day

A Guide to Daily Food Portions

Carbs



6-9 portions
(Starchy-Carbs)

Fruit & Veg



5+ portions

Protein



2-3 portions

Dairy/Alternatives



2-3 portions

Spreads & Oils



1-2 portions
(2-4 Low fat option)

Water



6-8 glasses



Top Tip:

Limit food and drinks high in fat, salt and sugar or that are highly processed

Carbohydrate Swap Ideas



White Bread



Wholegrain Bread



Sugary Cereal



Porridge



White rice



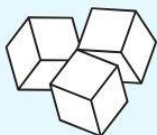
Wholegrain rice



Fruit juice



No Added Sugar Squash



Sugar



Sweetener

A Typical Day Example of Carbohydrate Portions

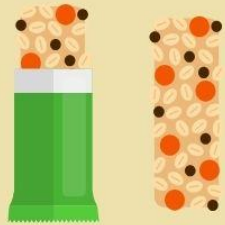
Carbs

6-9 portion example



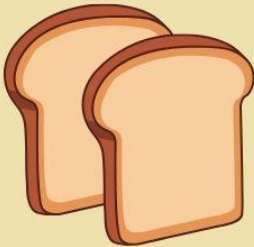
Porridge
(1-2 portions)

Breakfast



Cereal Bar
(1 portion)

Snack



Sandwich
(2 portions)

Lunch



Crackers
(1 portion)

Snack



Pasta
(2-3 portions)
Evening Meal

Fruit & Veg

5 Portion Example



Banana



Carrots



Sweetcorn



Dried Fruit



Tomatoes

Dairy/Alternatives

2-3 Portion Example



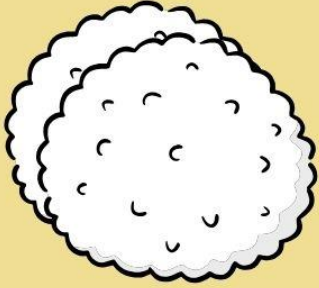
Milk
(On cereal and
in drinks)



Yoghurt

Healthy Snack Ideas

Carbohydrate



Rice Cakes



Crackers



Nut bar



Crumpet

Fruit and Veg



Dried Fruit



Fruit



Tomatoes



Vegetable Sticks

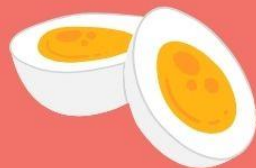


Avocado

Protein



Unsalted nuts



Boiled eggs



Humous Dip



Sardines

Dairy/ Alternatives



Milk/ Alternative



Cottage Cheese



Plain Yoghurt

How Physically Active Should I be?

Being more active can have many benefits to our physical and mental health. It can also help lower blood glucose levels and support weight management, recommendations are 150 mins/ week



Cycling



Swimming



Yoga



Walking



Resistance work



Gardening



Playing



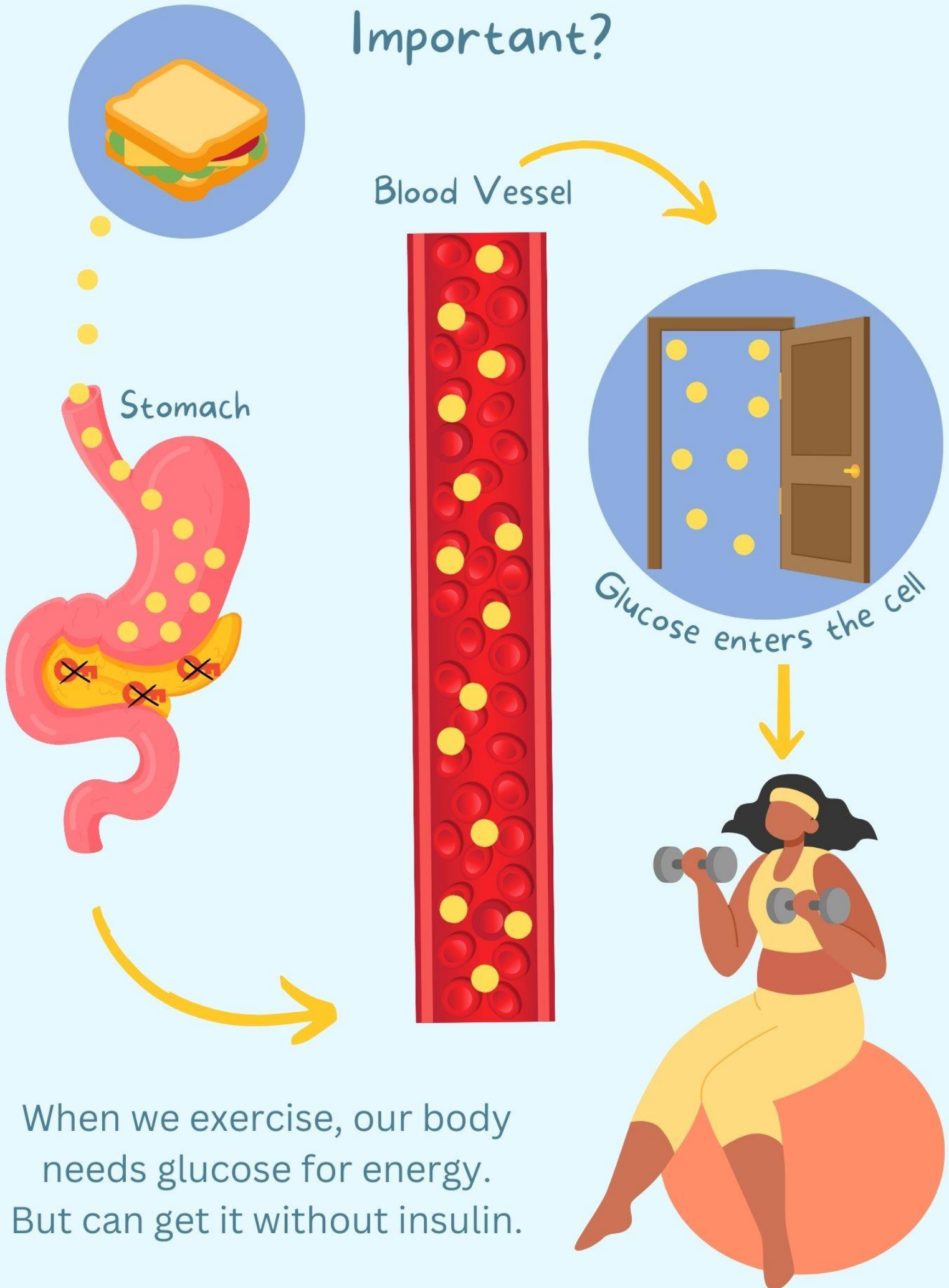
Jogging



Cleaning

(And many more options)

Why is Being Active with Prediabetes Important?



When we exercise, our body needs glucose for energy. But can get it without insulin.