Carbohydrates

1 Non-digestible fibre = Cellulose

Helps to keep gut flora happy and bowels clean

2 Simple carbs = Sugar

Quick energy
Not many nutrients

3 Complex carbs = Starches

Break down into glucose more slowly

Both have to be broken down into glucose for the body to use it

Starch is sugar holding hands!

Main source of energy

Fibre Rich Carbs

- Oats
- Fruit
- Veg
- Lentils
- Beans
- Skin on potatoes
- Whole grains

When we eat, our bodies break carbs down into simple sugars.

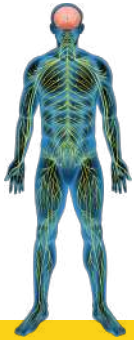
Sugary Carbs

- Sweets
- Sugary drinks
- Chocolates
- Biscuits
- Cakes
- Jams
- Syrups
- Honey
- Sugar

Excess intake converted to fat

Starchy Refined Carbs

- White bread
- White rice
- White pasta
- White noodles
- Processed cereals



Carbs power everything, from breathing and sleeping to running a marathon.

There are different types of carb, and the type we eat combined with the way we eat them, changes how our body uses them.

Carbs all come from plants

A portion is about the size of your fist
But adjust according to activity levels

Fill up on Fibre

Blood sugar
Fibre helps to reduce the spike of sugar in our blood

Regular bowels
Both types of fibre can help you go to the toilet.

Healthy gut
Fibre feeds our 'good' gut bacteria, helping our immune system and metabolic health.

Heart
Diets high in fibre can reduce obesity and high blood pressure

Lowers cholesterol
Soluble fibre traps cholesterol in our gut, instead leaving through our poop. Also, the bacteria in our gut breaks down fibre, helping to lower blood cholesterol

Fat loss
Fibre can help us to feel a fuller for longer, which means that we don't feel as hungry and eat less.

Fibre- our superfood

Diets rich in fibre are linked with good gut health and generally better health. Fibre is a type of carb that your body cannot digest properly, so instead of being broken down in to sugars like other carbs, it passes through your body.

2 kinds of fibre

Insoluble
Doesn't go gel like in your body. Helps food move through your body. Found in brown rice, spinach, bananas, berries

Soluble
Turns gel like in your body when mixed with water. This slows how quickly food moves through your body, makes you feel fuller for longer and control your hunger, reduces your 'bad' cholesterol, and can stop you getting so tired throughout the day- avoiding 'the crash'. Found in foods such as oats, beans, pears, carrots

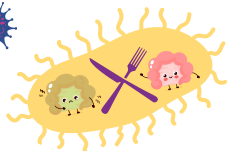
Combine it with drinking plenty of water (6-8 glasses a day) and it'll help with digestion and keeping you going to the loo regularly.

Making a quick change from a low-fibre to a high-fibre diet can cause cramps, increased wind and bloating. So always increase the amount of fibre in your diet slowly.

CAUTION CAUTION CAUTION

Gut Microbiome

Within our guts live trillions of microbes and bacteria, making up our gut microbiome. Some of these microbes are friends, some are neutral, others can be enemies.



The foods we eat have a major influence on our gut microbiome and in turn our health.

Our microbes directly impact our health, some of them are helpful and some of them are harmful.

Most of us have about 160 different types of microbes in our gut

What does the gut microbiome do?

These bacteria and microbes directly influence lots of parts of our health, including...

- Taking the nutrients from food so that we can use them in the body
- Breaks down the fibre our body cannot digest itself and has a positive impact on our blood sugar and blood fat control .
- Protects the body from pathogens (disease causing microbes) supporting our immune system to protect us from infection and disease.
- Makes vitamins K and B, which supports functions from healthy bones to getting red blood cells around our body.

- Science shows that having too many harmful microbes can lead to different health issues, including obesity and autoimmune conditions such as multiple sclerosis.
- Scientists also believe that less diversity (different types) of microbes in the gut can also be harmful for health. People with low diversity are more likely to develop some types of arthritis, type 2 diabetes, inflammatory bowel disease and celiac.

High in sugar
Low in fibre
High in fat

Don't snack too late

Leaving a good chunk of time between out last meal and our breakfast gives our gut microbes time to like little cleaners and clean up our gut lining and keep things healthy.

Limit ultra-processed foods

They are often high in sugar, fat, chemical additivities and low in fibre. This mix tends to starve our good bugs, feed our bad bugs and create high levels of inflammation within the body. We are not saying to never eat these foods, just try to limit them to no more than once a day.

Aim to eat 30 different plants every week

It is easier than you think! Try get in different vegetables, fruits, wholegrains, nuts, seeds and pulses. But it can be as simple as using different spices when you cook. Using spices is also a great way to make food taste more interesting!

Add colour

Colourful fruits and vegetables are rich in fibre and polyphenols, which our good gut bugs love! Why don't you try having two different colours on your plate (beige does not count) at dinner time.

Fermented foods

These foods contain living microbes, which get on very well with our good gut bugs. They're fun to experiment with and can add an exciting addition to our meals, fermented foods include kefir, kombucha, kimchi, sauerkraut, plain yogurt with live cultures and certain cheeses. The key is to aim for a little and often instead of a lot occasionally.

Sugar Control

Excess turned to visceral fat - that is fat that sits around our organs

Sugar

SUGAR AKA – Calactose Florida crystals Sucanat Penuche Gum syrup Maltol Dextrose Rice malt syrup Sweet sorghum

Nectar Dextran Agave/nectar Diastatic malt Mannose Diatase Dextrin

Dextrose Sorbitol Saccharose Invert syrup Raspadura Avena Sativa

Natural Sugar

Glucose	Fruits
Fructose	Vegetables
Maltose	Grains
Lactose	Dairy

Free Sugar

Added commercially in large amounts	Term used for all sugar added to food. From manufacturer, cook or consumer

Don't need to reduce naturally occurring sugars

Unsweetened juice does release some free sugars in the juicing process. Our gut doesn't have to work to get to the sugar and so gets more. So only a small 150ml glass a day!

The government recommends that free sugars should not make up more than **5% of the energy** (calories) you get from food and drink each day.

Barley malt Maltodextrin Panela Ethyl maltol HFCS (High-Fructose Corn Syrup) Panocha Sorghum Carob syrup Xylose