



FOSS FACT SHEET

# HORMONES AND BLOOD SUGAR BALANCE





## Blood Sugar Balance

Learning how to balance your blood sugar may help ease many menopausal symptoms such as hot flushes and night sweats, early hours waking, weight gain, energy levels, fluctuating moods and sleep problems. The great news is that it is also quite easy, once you know how.

### The science bit

When we eat carbohydrates, our body breaks them down into a type of simple sugar called glucose, this is then absorbed into our blood and transported via the hormone insulin to our cells, where it then gets used as energy. Insulin is produced by your pancreas, and once it has done its job, your blood glucose levels drop again.

Your body breaks down carbohydrates at different rates. Simple carbohydrates (white bread, rice, pasta, biscuits and cakes) get broken down much faster than smart carbohydrates, also known as slow release or complex carbohydrates (quinoa, oats, brown rice). Ideally, your body thrives on slow releasing carbohydrates, that have been combined with protein and healthy fats, this enables a steady flow of glucose throughout the day. So a great meal for balancing blood sugar could be chicken breast with quinoa and avocado salad.

Frequent and sudden surges of glucose in the blood, force the pancreas to work extra hard to release adequate levels of insulin to remove the glucose from our blood and get it into our cells. When there are high levels of insulin in the blood, it may cause blood sugar levels to fall rapidly and this can cause food cravings. Low blood sugar is sending out 'hunger' signals, despite how much food has been consumed or how much body fat you may be carrying.

Maintaining blood sugar levels is tightly controlled by your body because high glucose levels can cause cell damage.

It is also possible for your cells to become 'resistant' to insulin, which means that the cells stop responding to insulin, and will no longer allow any glucose in. This condition is called Insulin resistance and is very common with polycystic ovary syndrome (PCOS) Any surplus glucose, if not needed by the cells, gets stored as fat in adipose tissue (commonly known as body fat).

Your blood sugar wants to be in an optimal range throughout the day, if it is below the optimal range it is termed 'hypoglycaemia' and if it is above the optimal range it is termed 'hyperglycaemia'.

In ideal conditions, blood glucose levels range from 90-130mg/dL before meals and below 180mg/dL within 1-2 hours after a meal.





## Symptoms

A whole range of symptoms can be associated with blood sugar imbalance:

- Anxiety and fluctuating mood
- Irritable
- Tired and low energy
- Difficulty concentrating
- Forgetful
- Drowsy during the day
- Headaches
- Craving sweet foods
- Sleep problems, waking early hours 3-4 am
- Hot flushes and night sweats

Fluctuating blood sugar levels are often due to excessive repeated intake of sugary snacks and simple carbohydrates.

However, other factors that can influence your blood sugar levels are:

- Stress, hormones are released that impact blood sugar regulation
- Low fibre intake
- Consuming too much alcohol
- Being overweight or obese
- Lack of exercise



## Nutritional Guidance

Your body operates at its best when glucose levels are steady and within an optimal range. But do not worry, it is much easier than you think.

Follow these guidelines, when following the FOOD pillar:

- Eat protein with every meal, especially breakfast.
- This will help keep you fuller for longer and will reduce the tendency to snack between meals.
- Remove simple carbohydrates (white rice, bread, pasta, cakes and biscuits) from your diet, and consume smart carbohydrates (brown rice, oats, quinoa and vegetables) instead
- Avoid hidden simple sugars in products such as salad cream, tomato ketchup, shop bough cereals, crisps, baked beans
- Eat three meals a day - the science is always changing, but I promote three balanced meals a per day, and minimal grazing. This allows your digestive system and pancreas to have a rest between meals, and studies show that people eating three meals a day on average, had lower blood glucose levels
- Avoid 'low fat' products because they are normally high in sugar, food manufacturers add sugar to enhance the taste because they have removed the fat
- Check food labels, savoury products can have sugar in them, even cold meats such a cooked chicken and ham
- Avoid stimulants such as alcohol, caffeine and cigarettes, they mess with your hormones and can send you on a rollercoaster of high and low blood sugar levels
- Consume protein (meat, fish, cottage cheese, yogurt, nuts and seeds) and high fibre foods (oats, pulses, vegetables) because these foods slow the absorption of sugar from food
- Limit your intake of dried fruits because they are high in sugar and low in fibre
- Opt for natural sweeteners such as maple syrup, coconut sugar, raw honey and use sparingly
- Manage stress levels to support hormone balance
- Exercise regularly to support insulin sensitivity





## Supplements and foods to support blood sugar balance

**Chromium** - supports your blood cells to make them more receptive to insulin

**Vitamin C** - antioxidant that protects against the damage caused by raised blood sugar levels

**B Vitamins** - they assist with the digestion and are involved with the production of energy, which supports stable blood sugar maintenance

**Omega-3** - fish oils - sufficient intake of these oils supports insulin action

**Magnesium** - Insulin helps store magnesium in your cells, as well as being required to produce insulin. If you are insulin resistant your magnesium stores may become depleted

**Manganese** - supports enzymes implicated with blood sugar regulation

**Cinnamon** - helps support a normal response to insulin and lowers blood sugar by mimicking insulin

**Liquorice** - supports your adrenal glands which influence blood sugar balance

**Fenugreek seed** - slows the absorption of glucose into the blood

Learning how to balance your blood sugar levels may help ease many menopausal symptoms and help with weight management, but it may also help prevent you from developing Type 2 diabetes, which is a risk factor for many women after the menopause.

