WORLD DIABETES DAY 2026

The Truth About Sugar:

Blood Sugar, Insulin and Your Long-Term Health



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Introduction

How much do you really know about your blood sugar? We often associate sugar with sweet treats, afternoon slumps and weight gain. But glucose is also an essential fuel for the brain and body. Every time we eat, a sophisticated system works to keep glucose available for energy without allowing blood levels to stay too high.

Most of us rarely think about this balancing act. Yet understanding it matters: persistently elevated blood glucose can affect long-term health, and problems regulating glucose are central to diabetes.

With World Diabetes Day taking place on the 14th November, it's a timely opportunity to understand what's happening inside our bodies and why blood sugar awareness matters.

In this article, we'll explore how blood sugar works, the vital role of insulin, and how everyday food choices can influence our energy and long-term health. We'll also examine the connection between blood sugar and diabetes, and share simple, practical ways to support healthier blood sugar levels.



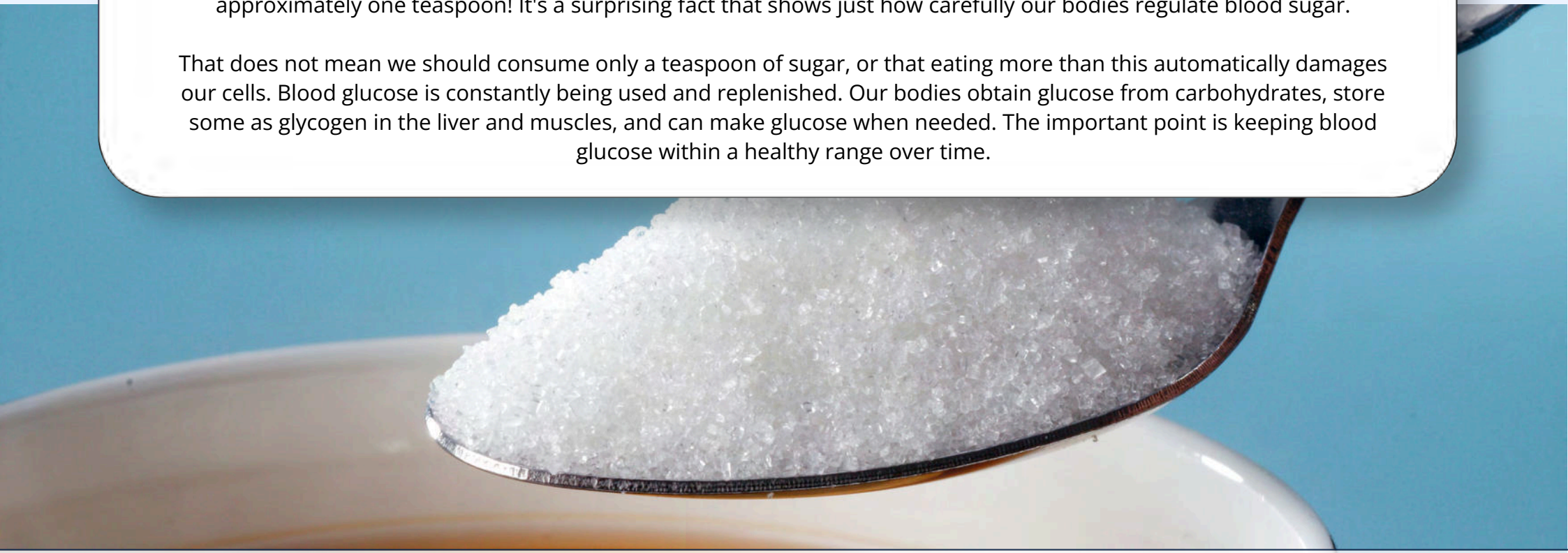
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Just a Teaspoon of Sugar in Your Blood?

Sugar, in the form of glucose, is an essential fuel for the brain, muscles and other organs. But the amount circulating in our bloodstream at any one time is surprisingly small.

The average adult has roughly five litres of blood circulating around their body. When blood sugar is at a normal level, such as first thing in the morning before breakfast, that blood contains only around four to five grams of glucose, approximately one teaspoon! It's a surprising fact that shows just how carefully our bodies regulate blood sugar.

That does not mean we should consume only a teaspoon of sugar, or that eating more than this automatically damages our cells. Blood glucose is constantly being used and replenished. Our bodies obtain glucose from carbohydrates, store some as glycogen in the liver and muscles, and can make glucose when needed. The important point is keeping blood glucose within a healthy range over time.



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The Role of Insulin

After we eat carbohydrate-containing foods, from bread and rice to fruit, pulses and sweet treats, digestion releases glucose into the bloodstream. Blood sugar rises, and the pancreas responds by releasing insulin.

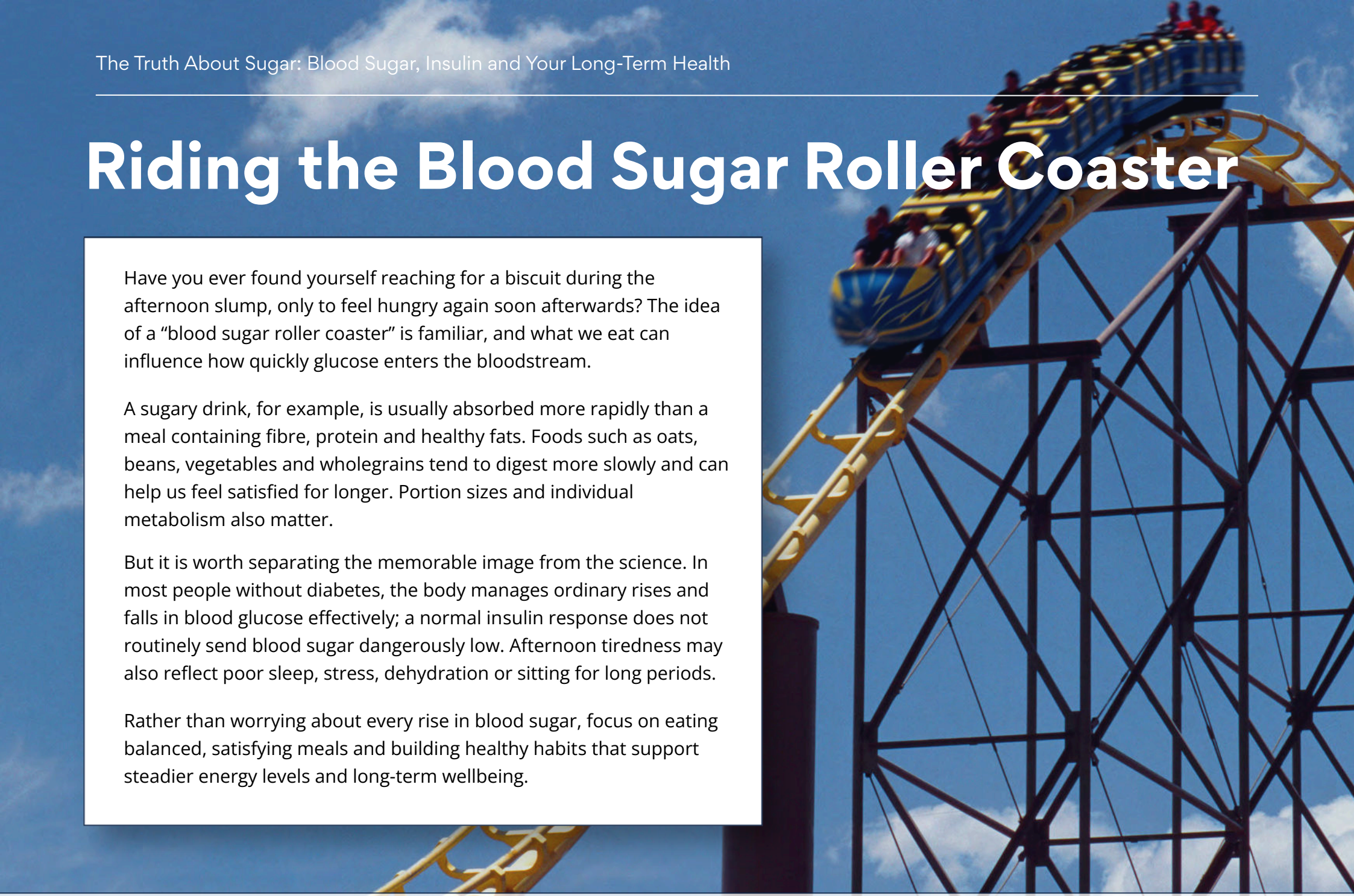
Think of insulin as a messenger: it helps many of our cells take up glucose for energy and signals the liver and muscles to store some for later. As blood glucose returns towards its usual range, insulin release generally falls. This finely coordinated process helps supply fuel throughout the day.

A rise in insulin after eating is normal, not a sign that something has gone wrong. The concern is when the body struggles to regulate blood glucose consistently.



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Riding the Blood Sugar Roller Coaster



Have you ever found yourself reaching for a biscuit during the afternoon slump, only to feel hungry again soon afterwards? The idea of a “blood sugar roller coaster” is familiar, and what we eat can influence how quickly glucose enters the bloodstream.

A sugary drink, for example, is usually absorbed more rapidly than a meal containing fibre, protein and healthy fats. Foods such as oats, beans, vegetables and wholegrains tend to digest more slowly and can help us feel satisfied for longer. Portion sizes and individual metabolism also matter.

But it is worth separating the memorable image from the science. In most people without diabetes, the body manages ordinary rises and falls in blood glucose effectively; a normal insulin response does not routinely send blood sugar dangerously low. Afternoon tiredness may also reflect poor sleep, stress, dehydration or sitting for long periods.

Rather than worrying about every rise in blood sugar, focus on eating balanced, satisfying meals and building healthy habits that support steadier energy levels and long-term wellbeing.

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Insulin Resistance: When the System Struggles

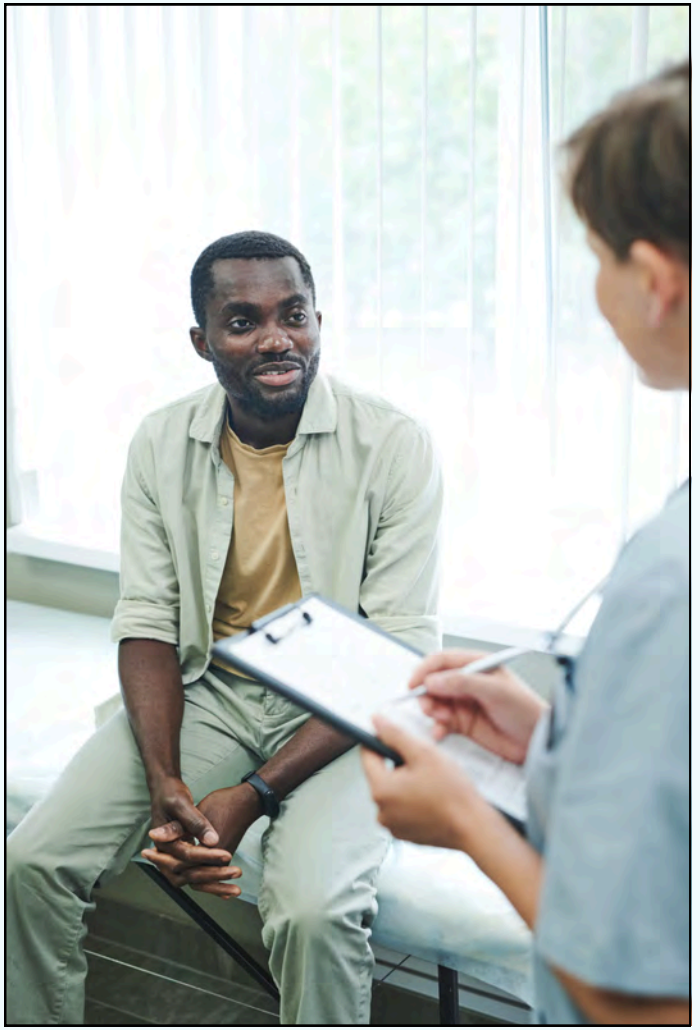
Over time, some people can develop insulin resistance, meaning their muscles, liver and other tissues respond less effectively to insulin. The pancreas initially compensates by releasing more of it. If it can no longer keep up, blood glucose may rise, sometimes progressing to type 2 diabetes.

Insulin resistance is influenced by several factors, including:

- Genetics
- Body-fat distribution
- Physical activity
- Sleep
- Other broader health circumstances

Body weight and appetite are also regulated by many interacting processes, rather than by insulin spikes alone.

This is why the focus should be on long-term patterns, not blaming individual foods or treating every rise in insulin as harmful.



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Understanding the Link Between Diet, Insulin and Diabetes

Diabetes is a chronic condition that affects how your body regulates blood sugar (glucose), causing blood sugar levels to become too high. In the UK, almost six million people are estimated to be living with diabetes, including approximately 1.3 million people with undiagnosed type 2 diabetes.

The main types of diabetes

- Type 1 diabetes is an autoimmune condition in which the body destroys insulin-producing cells. It is not caused by eating sugar and requires insulin treatment.
- Type 2 diabetes occurs when the body becomes resistant to insulin and/or cannot make enough of it.
- Gestational diabetes develops during pregnancy and requires monitoring and care.

Type 2 diabetes is the most common form, and its risk reflects a combination of inherited, social, environmental and lifestyle factors. Diets frequently high in sugary drinks and low in fibre can contribute to poorer metabolic health, but no single food causes diabetes on its own.



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Importantly, type 2 diabetes can develop gradually, and sometimes without obvious symptoms. Excessive thirst, passing urine more frequently, unexplained weight loss and unusual tiredness are reasons to seek medical advice.

The 4Ts:



Toilet **Thirsty** **Tired** **Thinner**

The 4Ts are especially important signs of type 1 diabetes, which can develop quickly and needs urgent assessment.

For World Diabetes Day, consider learning about your own risk or asking a healthcare professional whether a blood glucose or HbA1c check is appropriate. Diabetes UK also provides a free Know Your Risk tool for type 2 diabetes.



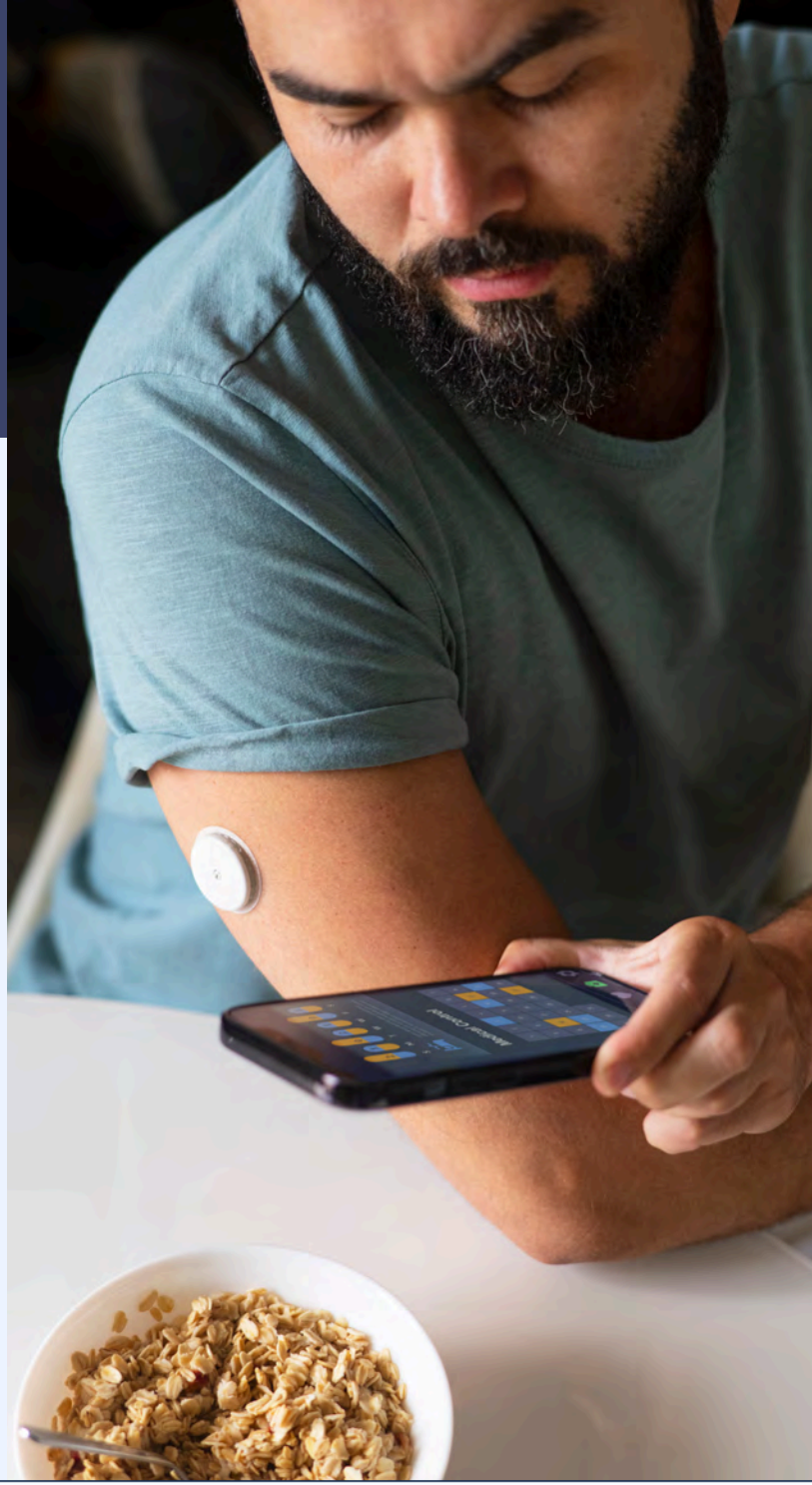
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What Does Persistently High Blood Sugar Do to the Body?

Inflammation is the body's natural way of protecting itself from injury and infection. Normally, it settles once the body has recovered. However, when inflammation continues at a low level over time, it can contribute to long-term health problems. Persistently high blood sugar can also damage blood vessels and nerves, affecting how well different parts of the body function.

For people living with diabetes, this can increase the risk of problems affecting the heart, kidneys, eyes and feet. Nerve damage and poor circulation, for example, can make foot injuries harder to notice and slower to heal. This is why managing blood sugar levels, attending regular health reviews and checking your feet are so important.

It's important to remember that these risks develop over time and aren't caused by eating the occasional sugary treat. Long-term blood sugar control and healthy, balanced eating habits matter far more than any single food choice.



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Improving Health Through Simple Changes

The encouraging news is that everyday habits can support glucose regulation and help reduce the risk of type 2 diabetes. There is no need to eliminate all carbohydrates or aim for a perfectly flat blood sugar reading.



Build a balanced plate

Choose more fibre-rich foods such as vegetables, beans, lentils, oats and wholegrains, and pair carbohydrates with sources of protein and unsaturated fat.



Break up your working day

A lunchtime walk, taking the stairs or moving between long periods of sitting can help your body use glucose and support wider physical and mental health.



Think about what you drink

Swap sugary soft drinks for water or unsweetened alternatives more often, without feeling that every choice must be perfect.



Make space for sleep and recovery

Sleep and stress can affect appetite, energy and metabolic health. Protecting rest is part of looking after yourself.



Know your personal risk

If you have concerns or risk factors, ask your GP or practice nurse about appropriate checks. If you have symptoms, seek medical advice promptly.

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Your World Diabetes Day Takeaway

The lesson is not to fear sugar. It is to appreciate the remarkable system that keeps glucose in balance and to recognise why long-term blood sugar health matters.

This World Diabetes Day, choose one manageable action: take a walk after lunch, make a regular meal more balanced, or find out whether a diabetes risk check would be useful for you. Small changes, sustained over time, can make a meaningful difference.



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Reference List

- British Heart Foundation. Blood Sugar Levels: What is Normal? Available at: www.bhf.org.uk/informationsupport/heart-matters-magazine/medical/tests/blood-sugar
- National Library of Medicine. *Physiology, Blood Volume.* Available at: pubmed.ncbi.nlm.nih.gov/30252333/
- NHS England. Millions of People Have Diabetes, But How Much Do You Know About It? Available at: www.england.nhs.uk/blog/millions-of-people-have-diabetes-but-how-much-do-you-know-about-it/
- Cleveland Clinic. *Blood Glucose (Sugar) Test.* Available at: my.clevelandclinic.org/health/diagnostics/12363-blood-glucose-test
- Healthline. *Does Sugar Cause Inflammation in the Body?* Available at: www.healthline.com/nutrition/sugar-and-inflammation
- Harvard Health Publishing. *Foods That Fight Inflammation. A*vailable at: www.health.harvard.edu/staying-healthy/foods-that-fight-inflammation
- Medical News Today. *Effects of Diabetes on the Body and Organs.* Available at: www.medicalnewstoday.com/articles/317483
- British Heart Foundation. *Diabetes.* Available at: www.bhf.org.uk/informationsupport/risk-factors/diabetes
- Diabetes UK. *How Many People in the UK Have Diabetes?* Available at: www.diabetes.org.uk/about-us/about-the-charity/our-strategy/statistics

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