



SUGAR RUSH

SUGAR IS COMPLICATED. YOU NEED IT TO FUEL YOUR RUNNING, BUT TOO MUCH CAN LEAD TO WEIGHT GAIN. HERE, DAN ROBERTS REVEALS THE GOOD, THE BAD AND THE UGLY

Simple, complex, glucose, fructose, sucrose... Glycaemic Index... the world of sugar can be confusing! Advice is often misleading for a runner, who needs energy but is also looking after their waistline. So, here's some information that will hopefully make things a little easier to understand. First, some definitions:

➔ **Glucose** The simplest form of sugar. This has a Glycaemic Index level of 100 (GI 100) – which will be explained shortly.

➔ **Fructose** The sugars that derive from fruit (GI 19).

➔ **Sucrose** Refined sugar – more than 150 million tonnes are produced annually. It's the sugar you get in processed foods (GI 64).

THE GOOD

Sugar is the preferred form of carbohydrates for working muscles. Your brain also runs off sugar (glucose, to be precise). Just try running for a few hours without any carbohydrates and you'll soon find out it's not a great idea!

For those who are unfamiliar with the Glycaemic Index (GI), now is the time to learn. Essentially, when you eat carbohydrates, they all break down into glucose. Some take ages, some don't take much time at all. The higher the number, the quicker it breaks down. So, if you eat foods that break down into glucose quickly (for example, sweets or pasta), then your body's blood sugar levels will increase. The problem is, insulin will then be released to lower your blood sugar levels. The

'EAT FRUITS THAT HAVE A LOW GI, SUCH AS APPLES AND BERRIES'



pancreas, which controls insulin levels, always overdoes it, so you'll be left in a situation where your blood sugar levels are too low. This may leave you feeling a bit down, emotional or tired, so what do you crave? More fast-releasing sugars, to give you a high. This is a vicious circle – and it's why it's always best to avoid high-GI, fast-releasing sugars.

But as a regular runner, what about carbohydrate gels? You will undoubtedly have come across these if you've ever trained for a long race. These gels usually have a mix of slow- and fast-releasing sugars, so you get an energy kick when you need it, but (unlike sports drinks and energy drinks) it won't be extreme. You will also get energy released later, so your blood

'ONLY USE CARBOHYDRATE GELS FOR RACES OF HALF-MARATHON DISTANCE OR MORE'

sugar levels won't yo-yo. To get it right, follow these three tips when using gels:

- 1 Always take them with water (otherwise your insulin levels can get messed up).
- 2 Only use them when your body starts to run out of glycogen stores – after about 60 to 90 minutes of exercise. If you take them unnecessarily, the excess sugar will turn to fat. I tell my private clients to only use them for races of half-marathon distance or more.
- 3 Try different brands, to see how your body reacts. Some gels include amino acids, while others include caffeine – and never try anything new on race day.

THE BAD

As mentioned earlier, fast-releasing sugars (high GI) play havoc with blood sugar levels. Another issue with all sugars – but in particular fast-releasing ones – is dental deterioration, including bleeding gums, cavities and premature loss of teeth. Fast-releasing sugars can also lower your intensity (see right). And a note about fruit: fructose is low GI. But not all fruits have a low GI (I told you it could get confusing!) To stay on the safe side, stick to fruits that have a low GI, such as apples and berries, and avoid juices and smoothies.

THE UGLY

Unsurprisingly, there is a direct link between eating too much sugar and obesity. The body converts all carbohydrates into sugar, and all sugar into glucose/glycogen. When the body has enough, the liver converts all excess glucose/glycogen into fatty acids, to be stored in fat cells – mostly located around your hips, lower abs, bottom and the backs of your arms. Also, high insulin levels (which can occur by eating too many high-GI foods) may be hormonally

harder to low this excess fat, and if you don't exercise much either, you'll pile on the pounds. This is obviously bad for your self-esteem and can bring about very serious health conditions, including diabetes, heart problems and fertility complications.

So, how much sugar is too much? It differs for everyone, but a good rule of thumb is to only allow sugar to form five to ten per cent of your daily caloric intake. Be wary of fast-releasing sugars, chocolates, smoothies and processed foods, as these contain high-GI sugars that will not help you in any way. Stick to mostly low-GI foods most of the time, and you'll be on the right track. ■

SUGAR AND IMMUNITY



Studies have shown that eating 100g of sugar in one go reduces your immune function by 50 per cent for around five hours. From other studies I've researched, it seems that eating anything over 70g has a detrimental effect on immunity. The good news is that this is only true for fast-releasing sugars. If you opt for slow-releasing sugars, found in low-GI foods, there are no negative effects on immune function.