Carbs and fat: what your body uses them for

Your body uses both, every day. Here's what each one does, what happens when either is cut hard, and what the trials found when they were tested against each other.

No calorie targets, no weight targets, no foods to avoid. If food rules are getting louder, support details are on page 2.

What carbohydrate does

- Fuels your brain, nerves and red blood cells with glucose.
- Is stored in your liver and muscles with water, which is why the scales can move after a bigger carb meal without any change in fat.
- Includes fibre, which keeps your bowel moving and feeds your gut bacteria. Most UK adults eat far less fibre than recommended.
- Has backup systems for famine: your liver can make glucose, and in a long fast your brain can run on ketones. They're for survival, not for everyday life.

What fat does

- Supplies two essential fats your body can't make.
- Helps you absorb vitamins A, D, E and K, and the pigments in colourful vegetables.
- Builds your cell membranes. Cholesterol, which your body also makes, is the raw material for steroid hormones and vitamin D.
- Triggers fullness hormones and slows your stomach, which helps a meal feel satisfying.

When the diets were tested head to head

A Cochrane review of 61 trials found low-carb and balanced-carb diets made little or no difference to weight over one to two years. In the year-long DIETFITS trial, a healthy low-fat diet and a healthy low-carb diet did about equally well. For weight, neither one is the villain.

If carbs are cut hard

- Fibre usually falls with them.
- The early drop on the scales is mostly water, and it comes back.
- Mood can dip.
- The body leans more on protein, which you'd rather keep for muscle.

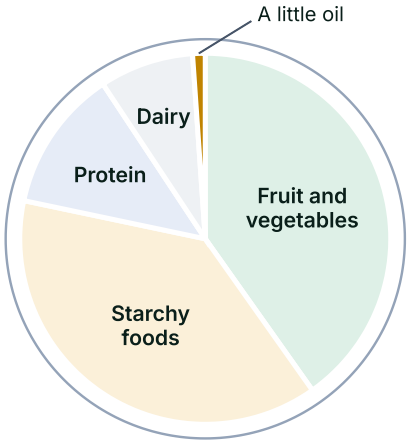
If fat is cut hard

- It gets hard to eat enough energy overall.
- Low energy can disrupt periods and harm bones.
- Fewer fat-soluble vitamins get absorbed.
- Meals feel less satisfying, and strict rules tend to snap.

On a GLP-1 medicine

- Your appetite drops, so each meal carries more of your nutrients. Build meals around protein, a fibre-rich carbohydrate and a little fat.
- Constipation is common. Increase fibre slowly and drink plenty.
- If you feel sick, smaller meals and going easy on very fatty food can help for a few days.
- Protein and resistance exercise help protect muscle, and eating enough helps protect bone.
- If you've had an eating disorder, tell your prescriber.

Illustrative: UK NHS Eatwell Guide



On your plate

- Have some carbohydrate at most meals, leaning towards wholegrains, beans, lentils and potatoes with their skins.
- Have a little fat with meals, mostly from oils, nuts, seeds and oily fish. Butter and cheese have a place too.
- Put a little fat with your vegetables so you absorb their vitamins.
- If a whole food group has quietly disappeared from your week, it's worth asking why.

You might hear	What the evidence says
"Carbs make you gain weight."	The UK's scientific advisers found no trial evidence that higher-carbohydrate diets cause weight gain (SACN 2015).
"All fat is bad for you."	Two fats are essential, and fat helps you absorb vitamins. UK advice is to swap some saturated fat for unsaturated fat (SACN 2019).
"Low-carb is better for weight loss."	Trials comparing them find little or no difference (Cochrane 2022; DIETFITS 2018).
"Low fat stops your periods."	Low energy is the main driver, and cutting fat hard is one quick way to under-eat. If your periods stop or become irregular, see a doctor.

If food rules are getting louder

You don't have to sort it out on your own. Talk to a doctor, or call the eating disorder helpline for your country. **United States:** ANAD, 1-888-375-7767, 9am to 9pm Central, Monday to Friday. **United Kingdom:** Beat, 0808 801 0677 (England), 0808 801 0432 (Scotland), 0808 801 0433 (Wales), 0808 801 0434 (Northern Ireland), 3pm to 8pm, Monday to Friday.

Ireland: Bodywhys, (01) 2107906. **Australia:** Butterfly Foundation, 1800 33 4673. Anywhere else, most countries run a free, confidential eating disorder helpline. You don't need a diagnosis to call any of them, and none of them is an emergency service.

Sources: SACN Carbohydrates and Health (2015); SACN Saturated Fats and Health (2019); National Diet and Nutrition Survey 2019 to 2023; NHS Eatwell Guide; NICE NG246 (2025); Naude et al., Cochrane (2022); Hooper et al., Cochrane (2020); Gardner et al., JAMA (2018); Mozaffarian et al., joint GLP-1 nutrition advisory (2025). Full references in the article.

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