

Sources of carbohydrates

Carbohydrates can be simple (sugars) or complex (starches). These terms refer to the size or complexity of the carbohydrate molecule.

Simple carbohydrates are very small molecules with one or two sugar units and include glucose, fructose (fruit sugar), sucrose (table sugar – one molecule of glucose joined with one of fructose) and lactose (milk sugar – one glucose and one galactose molecule joined together). In general, these foods tend to be poorer, less nutritious sources of proteins, vitamins and minerals but not totally devoid of nutrients, e.g. milk and ice cream provide calcium, chocolate provides iron and fruit provides vitamins and minerals.

Complex carbohydrates include starches and are made up of much larger molecules, which consist of hundreds of sugar units (mostly glucose) joined together. They are high in other nutrients, such as vitamins, minerals, protein and dietary fibre. Wholegrain varieties are seen as preferable to 'white', 'beige' or refined foods as far as nutritional value is concerned.

Food	Reasons to avoid, take care with
White sugar.	Bread.
Brown sugar.	Rice.
Honey.	Pasta.
Jam and other preserves.	Cereals.
Sweets.	Noodles.
Chocolates.	Flour.
Soft drinks.	Potatoes.
Cakes, biscuits.	Starchy vegetables.
Puddings, sweet pastries and pies.	Pulses (dried beans, peas, lentils).
Milk, yoghurt, ice cream.	Oats, corn, barley, millet and other grains.
Custard.	Yams, sweet potatoes.
Jelly.	Plantains (green bananas).
Fruit.	Parsnips.
Sweet pickles, sauces.	Sweetcorn.

In practice, most foods contain a mixture of both types of carbohydrates, e.g. cakes (flour and sugar) and bananas (sugar and starch – depending on ripeness).

If a baked potato is compared with a small chocolate bar, both contain the same amount of calories, but the potato contains more carbohydrate, vitamins B and C, fibre, iron and other minerals; the chocolate contains more fat, minimal fibre and few vitamins.

	Baked potato 225 g	Chocolate bar 35 g
Calories	154	154
Fat	<1 g	7 g
Carbohydrate	36 g	23 g
Fibre	2.8 g	0 g
Sodium	14 mg	60 mg
Iron	0.8 mg	0.4 mg
Thiamine	0.42 mg	0.02 mg
Vitamin C	16 mg	0 mg