

What do the different types of nutrients actually do in your body?

Read on and find out why your body needs each of the following nutrients, and which foods you'll find them in: Afterwards, there is one question you will need to answer for each section.

- Proteins
- Carbohydrates
- Fats
- Vitamins and minerals
- Water

Proteins

Proteins give your body amino acids — the building blocks that help your body's cells do all of their everyday activities. Proteins help your body build new cells, repair old cells, create hormones and enzymes (complicated vital body chemicals), and keep your immune system healthy. If you don't have enough protein, your body takes longer to recover from illness and you're more likely to get sick in the first place. Good sources of protein are lean meat, fish, poultry, and low-fat dairy products, as well as nuts, dried beans, peas, and lentils.

Carbohydrates

Carbohydrates give you quick energy — they quickly go into your blood as glucose (blood sugar), which your body uses for fuel first, then turns the leftovers into fat.

Fruits, vegetables, bread, pasta, grains, cereal products, crackers, dried beans, peas, and lentils are all good sources of carbohydrates. Many of them are also good sources of fibre, which your digestive system needs to stay healthy.

Sugars are also carbohydrates. But these types of carbohydrates are high in calories without giving you any other benefits (such as containing vitamins and minerals). Whole grains and fruits and vegetables are healthier sources of carbohydrates.

Fats

Fats help your body to produce new cells and hormones. Fat also helps some vitamins move through your body. Vitamins A, D, E, and K are vitamins that dissolve in fat, not water, which means they need some fat in order to be absorbed. Your body stores excess calories as fat, which is saved up as reserve energy.

A teaspoonful of fat will have more calories than a teaspoon of carbohydrate or a teaspoon of protein.

There are two basic types of fats:

- **Saturated** fats are found mainly in meat and whole-milk products, or, in other words, foods that come from animals. However, coconut oil and palm oil are also saturated fats. Saturated fats are usually solid at room temperature.
- **Unsaturated** fats are found mainly in plant foods such as vegetables, nuts, and grains, as well as oils made from these nuts and grains. Besides vegetables, nuts, and grains, omega-3 and omega-6 fatty acids are found in coldwater fish such as tuna, salmon, and mackerel.

[Vitamins and minerals: Your body only uses a few grams (or for some of them only a few milligrams) of each vitamin or mineral each day.]

Vitamins keep your bones strong, your vision clear and sharp, and your skin, nails, and hair healthy and glowing. Vitamins also help your body use energy from the food you eat. Different vitamins have different functions in your body.

A list of vitamins should go... A,B,B,B,B,B,B,B,C,D,E,K because there are a lot of different vitamin B chemicals.

Minerals are chemical elements (magnesium, iron, calcium, etc.) that help regulate your body's processes. Potassium, for example, helps your nerves and muscles function. Calcium helps your teeth and bones stay strong. Iron carries oxygen to your cells. If you eat a balanced diet with enough calories and protein, you're probably getting enough vitamins and minerals.

Water

Water is necessary for life, which makes it vital for good health. Water makes up about 50% to 66% of your total body weight. It regulates your temperature, moves nutrients through your body, and gets rid of waste. Losing a lot of fluids plus the chemicals and minerals they contain can lead to dehydration. In general, it's a good idea to drink 6 to 8 glasses of water (or drinks that are mostly water) each day.

One question for each section: Answer these in full sentences in your exercise book.

1. Proteins: When do you **most** need proteins?
2. Carbohydrates: From **which foods** should you try to get your carbohydrates?
3. Fats: Too much fat is bad for you, but why does your body always need **some** fat?
4. Vitamins: How many **vitamin B** chemicals are there?
5. Minerals: Cheese contains calcium, so **which parts of your body** will it help most?
6. Water: Approximately how much of your body weight is water?