HEALTH BASICS

Nutrition

Nutrition is how food and drink provide energy and materials for health.

WHAT IT IS
How food and drink support your body's needs

WHERE IT COMES UP
Meals, food labels, health visits, and some diagnoses

WHY IT MATTERS
Supports growth, repair, movement, immunity, and organ function

WHAT IT IS NOT
Not a disease or single diet plan

WHO TO ASK
Primary care clinician or registered dietitian

HOW IT IS CHECKED
Food history, growth or weight trends, and selected blood tests

Overview

Nutrition describes how your body obtains and uses substances from food and drink. These substances include carbohydrates, protein, fats, vitamins, minerals, fibre, and water.

Nutrition is not a disease or a diagnosis. It also does not mean following one "perfect" diet. Your needs are shaped by factors such as age, body size, activity, pregnancy, health conditions, medicines, culture, food access, and personal preferences.

A nutritious eating pattern usually includes a range of vegetables, fruits, grain foods, protein foods, and dairy or suitable alternatives. The exact foods can differ across cultures and budgets. Fresh, frozen, dried, and canned foods can all contribute.

Individual foods do not usually determine health on their own. Your overall eating pattern, portion sizes, and habits over time are more useful than labelling foods as simply "good" or "bad."

How it works

Food supplies energy, measured in calories or kilojoules. Your body uses energy for breathing,

circulation, temperature control, movement, growth, and tissue repair. Energy needs are not identical for everyone and may change over time.

The nutrients needed in larger amounts are called macronutrients :

Vitamins and minerals are called micronutrients because the body needs them in smaller amounts. They still have important roles. For example, iron helps carry oxygen in the blood, calcium supports bones, and iodine helps the thyroid gland make hormones.

Fibre is the part of plant food that is not fully digested. It supports bowel function and feeds many of the microorganisms living in the gut. Whole grains, vegetables, fruit, beans, lentils, nuts, and seeds provide fibre.

Water supports circulation, digestion, temperature control, and waste removal. Fluids also come from foods, especially soups, fruits, and vegetables.

Digestion breaks food into smaller components that can be absorbed through the intestines. The bloodstream then carries these substances to tissues that use or store them.

- Carbohydrates are a major energy source. They are found in foods such as grains, potatoes, fruit, beans, milk, and sweets.
- Protein provides building blocks for muscles, organs, enzymes, hormones, and immune functions. Sources include meat, fish, eggs, dairy products, beans, lentils, nuts, seeds, tofu, and other soy foods.
- Fats provide energy, form part of cell membranes, and help the body absorb certain vitamins. Sources include oils, nuts, seeds, avocado, fish, meat, and dairy products.

Why it matters for your health

Adequate nutrition supports normal growth, bone strength, muscle maintenance, wound healing, and immune function. It can also help you maintain energy for daily activities.

Eating patterns are associated with long-term health. Patterns that include varied plant foods, suitable protein sources, and mostly unsaturated fats can support heart and metabolic health. Unsaturated fats are found in foods such as plant oils, nuts, seeds, avocado, and oily fish.

Nutrition also interacts with medical care. Kidney disease, diabetes, coeliac disease, digestive disorders, food allergies, and some cancers may change what or how you eat. Medicines can affect appetite, nutrient absorption, or how the body handles certain foods. Food can also alter how some medicines work.

Body weight is only one piece of nutrition information. It does not show whether you are meeting all nutrient needs, and a single measurement cannot describe your health. Weight

trends, growth in children, eating history, physical findings, and selected tests may provide more context.

Social conditions matter as well. Cost, transport, housing, cooking facilities, disability, work schedules, and access to culturally familiar foods can all shape what is realistic.

What can go wrong

Undernutrition means that the body is not receiving or absorbing enough energy or nutrients. It may occur with limited food access, loss of appetite, swallowing difficulty, digestive disease, or increased needs during illness. Unplanned weight loss, reduced strength, or poor growth can lead a clinician to assess for it.

Overnutrition means taking in more energy or certain nutrients than the body needs over time. This can contribute to health conditions, but it cannot be judged from one meal or food choice.

A nutrient deficiency is an inadequate level of a specific nutrient. Examples include iron-deficiency anaemia, vitamin B12 deficiency, and vitamin D deficiency. Symptoms and test results can overlap with many other conditions, so blood tests should be interpreted in context.

Dehydration occurs when fluid loss exceeds fluid intake. Vomiting, diarrhoea, fever, heavy sweating, and difficulty drinking can increase the risk.

Food allergies and food intolerances are different. A food allergy is an immune reaction and can sometimes be severe. An intolerance does not involve the same immune process; lactose intolerance is one example.

Restrictive eating, binge eating, purging, or intense distress around food may be part of an eating disorder. Eating disorders are medical and mental health conditions, not a lack of willpower.

Routine follow-up is appropriate if you have questions about food choices, gradual weight changes, supplements, persistent digestive concerns, or eating with a long-term condition. A primary care clinician or registered dietitian can help review the situation.

Seek urgent medical advice if you cannot keep fluids down, have signs of significant dehydration such as very little urine or increasing confusion, or are becoming unwell after prolonged low intake.

Call emergency services for trouble breathing, swelling of the tongue or throat, collapse, or other signs of a severe allergic reaction.

What you can do

There is no single test that gives an overall nutrition score. Practical steps focus on patterns and questions that matter to you.

You can:

A food record should reflect what you normally eat rather than what you think you should eat. Include supplements, drinks, and approximate amounts. Avoid long-term tracking if it increases anxiety or encourages rigid eating.

Blood tests may be useful when there is a reason to suspect a particular deficiency or medical condition. Broad testing without a clinical reason may produce results that are hard to interpret.

Supplements are not a general replacement for food. Some people need specific supplements because of pregnancy, a restricted diet, reduced absorption, or a confirmed deficiency. Before starting one, ask whether it is appropriate and whether it could interact with your medicines. More is not always better.

If you eat a varied diet, feel well, and have no relevant medical concerns, you may not need to do anything beyond maintaining eating habits that are practical and enjoyable.

- Keep a short food, drink, and symptom record if a clinician requests one
- Check food labels for serving size, ingredients, and key nutrients
- Ask whether a health condition or medicine changes your nutritional needs
- Ask whether unexplained weight change or restricted eating needs assessment
- Request help with food access, swallowing, cooking, or meal support
- Speak with a registered dietitian for personalised, evidence-based guidance

Common questions

Do I need to count calories?

Most people do not need to count calories routinely. It can be useful in selected medical or sports settings, but calorie estimates are not exact. For some people, tracking can become stressful or overly restrictive.

Are carbohydrates unhealthy?

Carbohydrates are a normal energy source. Their nutritional value differs by food. Whole grains, beans, fruit, and vegetables provide carbohydrates along with fibre and other nutrients.

Sugary drinks and sweets can also contain carbohydrates but usually offer less nutritional value.

Is fresh produce better than frozen or canned produce?

Not necessarily. Frozen and canned fruits and vegetables can be nutritious, convenient, and affordable. Check labels if you need to limit added sugar or sodium.

Can a blood test show whether my diet is healthy?

No single blood test can do this. Tests can identify or support assessment of particular problems, such as iron deficiency, but results are affected by illness, medicines, hydration, and other factors.

Do I need a multivitamin?

Not everyone does. Whether a supplement is useful depends on your diet, life stage, health conditions, and test results. A clinician or registered dietitian can help identify a specific need.

What is the difference between a dietitian and a nutritionist?

Titles and legal requirements differ by country. A registered dietitian has completed regulated education and supervised training where the title is protected. Check the professional register or licensing system where you live.

Sources

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