

Coronavirus outbreak: nutrition and immunity – be careful of myths and false promises

As the coronavirus continues to spread across the UK, interest in nutrition and diet in relation to immunity has increased, as has confusion and misconceptions.

No food or supplement can protect you from getting the coronavirus (COVID-19). Nevertheless, having a healthy diet is important in supporting our immune function and many nutrients influence the body's ability to fight infection.

Food, nutrients and the immune system

The immune system is a complex network of cells and chemical compounds that help defend the body against infections. A number of different nutrients are involved in supporting our immune systems to work normally so that we can deal with infections.

These are outlined in the table below and you will see that you can find these immune-supporting nutrients in a wide range of foods. Having a healthy, varied is the best way to get all the nutrients that are important for your immune system, as well as all the other systems of the body.

| Nutrient | Role in immune system | Food sources |
|--------------------|--|--|
| Vitamin A | Helps support T-cells (a type of white blood cell that helps identify pathogens). | Liver, whole milk and cheese are dietary sources of retinol ("pre-formed" <i>vitamin A</i>). Dark green leafy vegetables and orange-coloured fruits and vegetables, e.g. carrots, sweet potato, butternut squash, cantaloupe melon and papaya, are dietary sources of carotenoids, which can be converted to vitamin A by the body. |
| Vitamin B6 | Helps produce new immune cells, metabolise antibodies and helps immune cells to communicate. | Poultry, fish, fortified breakfast cereals, egg yolk, yeast extract, soya beans, sesame seeds and some fruit and vegetables, such as banana, avocado and green pepper. |
| Vitamin B12 | Helps to produce new immune cells. | Meat, fish, shellfish, milk, cheese, eggs, fortified yeast extract and fortified breakfast cereals. |
| Vitamin C | Helps immune cells attack pathogens, helps clear away old immune cells from the site of infection and helps to maintain the skin, our external barrier to infection. | Citrus fruits, blackcurrants, strawberries, papaya, kiwi, green vegetables, peppers and tomatoes. |
| Copper | Helps to protect and fuel immune cells. | Bread, breakfast cereals, rice, quinoa, meat, fish and shellfish, pulses, avocado, dried fruit, nuts and seeds. |
| Vitamin D | Role not clear but low status is associated with reduced immune response. | Oily fish, eggs, fortified breakfast cereals, fortified spreads and fortified dairy products. We are all advised to consider taking a supplement of 10 micrograms a day from October to March, and all year round if we aren't often outdoors. |
| Folate | Helps produce new immune cells. | Green vegetables, pulses, oranges, berries, nuts and seeds, cheeses, bread and fortified breakfast cereals. |
| Iron | Helps maintain the health of immune cells. | Offal, red meat, beans, pulses, nuts and seeds, fish (such as canned sardines, cockles and mussels), quinoa, wholemeal bread and dried fruits. |
| Selenium | Helps produce new immune cells and can help to strengthen response to infection. | Nuts and seeds (for example Brazil nuts, cashews and sunflower seeds), eggs, offal poultry, fish and shellfish. |
| Zinc | Helps produce new immune cells, helps develops 'natural killer cells' that help to fight off viruses and supports communication between immune cells. | Meat, poultry, cheese, some shellfish (including crab, cockles and mussels), nuts and seeds (in particular pumpkin seeds and pine nuts), wholegrain breakfast cereals and wholegrain and seeded breads. |

The wide range of nutrients implicated in immunity suggests that a healthy, balanced and varied diet is important.

Information Sourced from: <https://www.nutrition.org.uk/healthyliving/helpingyoueatwell/covid19immunity.html>