

Nutrition & Long Covid

Long Covid is defined as signs and symptoms that develop during or following an infection consistent with COVID-19, continuing for more than 12 weeks and are not explained by an alternative diagnosis ^{1,2}. The causes of Long Covid are yet to be fully understood. Research suggest that more than 2 million people in England have had Long Covid ³ and the range and severity of symptoms varies amongst individuals. Long Covid imposes a substantial burden on affected individuals, significantly limiting their ability to undertake daily activities.

Many of the symptoms are potential obstacles to adequate food intake, including the ability to shop and prepare meals. Over time this can lead to / further exacerbate malnutrition, frailty and/or sarcopenia (the loss of muscle mass and strength due to the natural aging process), which ultimately impacts on recovery from Covid.



Nutrition Support in Long Covid

Having good nutrition, so that the body has all the nutrients and energy it needs, is an important part of recovery from illness. A balanced diet high in protein and energy rich foods is essential for minimising/preventing weight loss and promoting weight gain, rebuilding muscle/regaining strength and increasing energy levels to support everyday activities.

For more advice on nourishing diets, how get the most out of food and tips for eating well with Covid related symptoms see:

[covid19red.pdf \(malnutritionpathway.co.uk\)](#)

[covid19yellow.pdf \(malnutritionpathway.co.uk\)](#)

[Eating Well | Your COVID Recovery](#)



For information on dietary protein see:

[Why it is important and where to find it \(malnutritionpathway.co.uk\)](#)

Can diet cure or prevent Long Covid?

Based on current evidence, there is no specific dietary advice that can prevent or cure Long Covid. Diets promoted as a 'cure' on internet forums and on social media by unqualified/self-styled nutrition 'experts' can be restrictive, which carries additional nutritional risks.

One example is the low histamine diet, which is believed to reduce inflammation, thought to be a key cause of Long Covid symptoms. The evidence base for this diet is poor and any reported improvements in symptoms is anecdotal⁴. In addition, there is a lack of consensus on which foods are high in histamine and the diet itself is very restrictive, potentially resulting in nutritional deficiencies. The British Dietetic Association Food Allergy Specialist Group recommends dietetic support and supervision for those individuals keen and able to follow a short-term dietary restriction and reintroduction phase.

For more information see:

[Caution advised with low histamine diets for Long Covid | British Dietetic Association \(BDA\)](#)

Do supplements help recovery from Long Covid?

Taking large amounts of dietary supplements is another popular idea within the Long Covid community, with anecdotal reports of effectiveness. However, there is a lack of scientific research to support these claims. It is important to be aware that high doses of vitamins and minerals can create nutritional imbalances, and some may have short term side effects or irreversible adverse effects if taken over long periods of time.

Most people can get all the vitamins and minerals they need from eating a varied balanced diet, but a multivitamin and mineral supplement may be beneficial for those struggling to achieve this.

For more information on vitamin and mineral supplements see:

[Supplements | British Dietetic Association \(BDA\)](#)

[Vitamins and minerals - NHS \(www.nhs.uk\)](#)



What about Vitamin D?

Vitamin D is essential for healthy bones, muscles / muscle strength and teeth and is manufactured by the body under the skin when exposed to daylight. It also plays a part in immunity and low levels have been associated with an increased risk of infection and respiratory disease. However, there is not enough evidence to recommend Vitamin D for treating or preventing Covid and no reports of its role in the management of Long Covid ⁵.

It is already recommended that all adults and children over the age of one should consider taking a daily supplement containing 10 micrograms of Vitamin D, especially throughout the autumn and winter months, as a healthy balanced diet alone will not meet recommended nutrient intake levels ⁵.

For more information on Vitamin D see:

[Vitamin D | British Dietetic Association \(BDA\)](#)

[Vitamins and minerals - Vitamin D - NHS \(www.nhs.uk\)](#)

Can a Mediterranean style diet help recovery from Long Covid by boosting the immune system?

A range of nutrients are involved in supporting a healthy immune system, which controls inflammation in the body and fights infection. Whilst there is no evidence related to the Mediterranean diet and Long Covid, the diet is rich in phytochemicals which have multiple health benefits including reducing chronic inflammation⁶. Phytochemicals are naturally responsible for the colour, taste and smell in plant foods. A UK trial is investigating the impact of phytochemicals on the severity and duration of COVID-19⁷.

The principles of a Mediterranean style diet are eating plenty of colourful fruit and vegetables, beans, pulses, nuts, seeds, wholemeal / wholegrain starchy foods (e.g. bread, pasta, rice), fish (including oily varieties) and unsaturated fats such as olive oil and rapeseed oil. It usually includes eating less meat. It is very similar to the Eatwell Guide model.

For more information see:

[The Eatwell Guide - NHS \(www.nhs.uk\)](http://www.nhs.uk)

[covid19green.pdf \(malnutritionpathway.co.uk\)](http://malnutritionpathway.co.uk)



What about probiotics?

Healthy gut bacteria are believed to be essential for mental and physical health and may play an important role in recovery from Covid and Long Covid⁷.

Probiotics are 'good' bacteria found in food products (e.g. yogurt) or taken as food supplements. They are thought to restore and/or improve the balance and function of gut bacteria disrupted by illness or treatment⁸. Eating a diet rich in fibre, fruit and vegetables, wholegrain foods and fermented foods (such as kefir, kimchi, sauerkraut and tempeh) can also improve the gut microbiome.

For more information see:

[Probiotics - NHS \(www.nhs.uk\)](http://www.nhs.uk)

[Probiotics | British Dietetic Association \(BDA\)](http://BritishDieteticAssociation.org)

[Fermented foods | British Dietetic Association \(BDA\)](http://BritishDieteticAssociation.org)

Can being overweight or obese be a risk factor for Long Covid?

Weight gain in Long Covid is common due to a lack of activity and/or changes in accessing or making healthy food choices. It is also often linked with fatigue. Weight management programmes in overweight/obese adults can reduce symptoms of fatigue, breathlessness and pain, which are common in Long Covid. The ReDIRECT study, undertaken by researchers at the University of Glasgow, is investigating the effect of a calorie restricted diet on weight, QOL and Covid symptoms over a 6 month period⁹.

Although losing weight has many health benefits, weight reducing diets should be avoided whilst recovering from Long Covid, unless recommended and supported by a healthcare professional. For information on eating a healthy, balanced diet during and after Covid illness see: [covid19green.pdf \(malnutritionpathway.co.uk\)](https://malnutritionpathway.co.uk/covid19green.pdf)

Help! I've lost my sense of taste/smell

These symptoms are commonly reported following a period of Covid infection. Experimenting with different flavours, types, textures and temperature of food may be helpful.



A BHT resource is available to all members of staff to offer to people with taste changes, including those struggling with taste changes following Covid infection. It can be found here: [Macmillan Dietitians | Swanlive - Buckinghamshire NHS Intranet](#)

Smell training, which involves repeated stimulation of the olfactory (smell) nerve using a range of scents, may be of help to some. Individuals are required to regularly smell essential oils or different items from the home that provide a range of pleasant odours and/or they have a connection with (e.g. lemon / orange rind, nutmeg, clove, mint, ground coffee, vanilla).

For more information see:

[Smell training technique :: Absent](#)

[SmellAbility© – Training & Testing – Fifth Sense](#)

Managing Gastrointestinal Symptoms

Recommendations are based on those provided for patients with IBS, which includes regular meals, reducing intake of high fat and processed foods, dietary fibre manipulation, lifestyle modifications and stress management strategies. If this first line advice does not provide satisfactory symptom relief the low FODMAP diet may be of benefit ¹⁰.

For more information see:

[Irritable Bowel Syndrome Food Fact Sheet | British Dietetic Association \(BDA\)](#)

Gastrointestinal symptoms (such as nausea, vomiting, constipation) might also be explained by Covid related dysautonomia, affecting gut function¹¹. Dysautonomia refers to several different medical conditions that cause a malfunction of the autonomic nervous system, which controls involuntary body functions. Eating a balanced, healthy diet, maintaining a healthy weight and good hydration are some of the many approaches to help manage symptoms ¹².

Summary

The symptoms of Long Covid and their effects on nutrition and health are varied and far reaching. There is currently little evidence to support any foods, eating patterns or nutritional supplements for the management of Long Covid. However, eating a varied and balanced diet, including protein, vitamins and minerals and the correct amount of energy, has multiple health benefits related to weight, immunity, gastrointestinal function and the gut microbiome, and has the potential to support recovery and rehabilitation from Long Covid.



Individuals struggling to optimise their nutrition or requiring specific dietary support should seek the advice of a qualified Dietitian or other Healthcare Professional. Diets promoted to cure Long Covid which have little or no supportive scientific evidence may carry additional nutritional risks and should be avoided.

Heike Melbourne, Specialist Dietitian for Critical Care & Surgery Division – October 2021