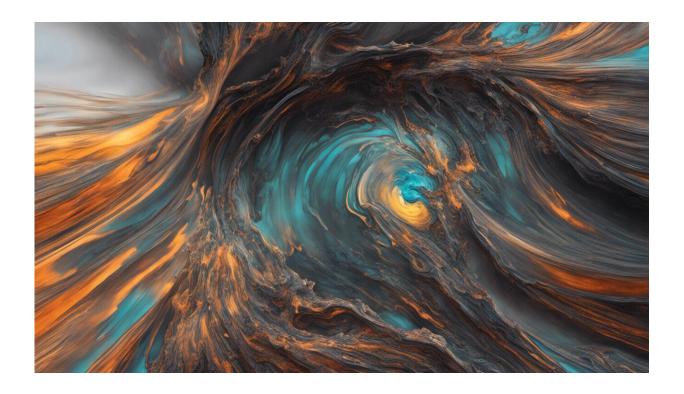


# Long COVID: A range of diets are said to help manage symptoms—here's what the evidence tells us

February 1 2023, by Samuel J. White and Philippe B. Wilson



Credit: AI-generated image (disclaimer)

Most people who contract COVID recover within a few weeks. But for some people, symptoms can develop later, or persist for a long time after the initial infection. A recent <u>review of the evidence</u> on long COVID suggests the condition affects at least 65 million people around the



world, occurring after at least 10% of COVID infections, and affecting all age groups.

Common <u>long COVID symptoms</u> include fatigue, shortness of breath, and difficulties with memory and concentration ("brain fog"). Symptoms can worsen with physical or mental exertion. We're still learning about long COVID, and treatment options are very limited.

Recently, some people, for example <u>on social media</u>, have been talking about a variety of diets as ways to manage long COVID symptoms. But what are these diets, and what does the evidence say?

# The anti-inflammatory diet

The process by which the <u>immune system</u> protects us from harmful pathogens is called <u>inflammation</u>. But too much inflammation can be a bad thing. Scientists believe that many of the symptoms associated with long COVID arise from <u>chronic inflammation</u>.

We know that some foods <u>can promote inflammation</u>, while studies have shown that components of certain foods may have anti-inflammatory effects.

So <u>an anti-inflammatory</u> diet involves avoiding foods that <u>elicit</u> <u>inflammation</u>, such as fried foods, refined carbohydrates, sugar, red and processed meats, and lard.

Instead it focuses on foods that reduce inflammation, such as tomatoes, olive oil, green leafy vegetables, nuts, fatty fish and fruits such as strawberries and blueberries. These foods are high in antioxidants and compounds which help protect against inflammation.

If you're looking for a diet that closely follows the tenets of anti-



inflammatory eating, consider the Mediterranean diet. Following a Mediterranean diet means eating lots of fruit, vegetables, nuts, whole grains, fish and healthy oils. This diet is rich in vitamins, minerals and dietary fiber, and has an anti-inflammatory effect in the gut.

Researchers have suggested the Mediterranean diet may have benefits in reducing the severity of a COVID infection in the short term, as well as in addressing longer-term symptoms.

### The low histamine diet

Histamine is a compound released by cells, often in response to an injury or an allergic reaction. If we have hay fever or are stung by a bee, we might take an antihistamine.

Histamine can lead to inflammation and can be a problem when we can't break it down properly, and levels get <u>too high</u>. Symptoms when this happens can include headaches, diarrhea, wheezing and fatigue.

Many of these symptoms are similar to those reported with long COVID. Some scientists have proposed that the increased inflammatory responses seen with long COVID could be caused by increased histamine release by dysfunctional immune cells, which we've seen before with other conditions.

A <u>low histamine diet</u> involves restricting the intake of food and drinks considered high in histamine for several weeks, before gradually reintroducing them to test tolerance. These include alcohol, fermented foods, dairy products, shellfish, processed meats and aged cheese, as well as wheat germ and a range of <u>fruit and vegetables</u>.

However, there appears to be <u>lack of consensus</u> on which foods are truly high in histamine. And as the foods are wide ranging, this can be a tricky



diet to implement without potentially causing nutritional deficiencies.

Although some people have reported <u>an improvement</u> in their symptoms by following a low histamine diet, there have been no studies published in this area. Given the <u>lack of evidence</u> and the associated challenges, elimination of dietary histamine is not currently recommended for long COVID.

# The plant-based diet

Plant-based eating refers to diets where the majority of energy is derived from plant foods, such as vegan and vegetarian diets. Plant-based diets are <u>beneficial</u> to markers of inflammation and may favorably alter immune function.

More specifically, a well-balanced <u>plant-based diet</u> is high in fiber, antioxidants, good fatty acids and a range of vitamins and minerals, which positively affect several types of cells implicated in <u>immune function</u> and may exhibit direct antiviral properties.

For example, compounds called polyphenols found in fruits and vegetables may improve the functionality and activity of <u>natural killer</u> <u>cells</u>, an immune cell that patrols the body recognizing abnormal cells.

Though some long COVID sufferers have touted the benefits of a plant-based diet, its usefulness to alleviate long COVID symptoms has not yet been examined in clinical trials.

Nevertheless, evidence from studies done before the pandemic suggests a plant-based diet may benefit <u>some conditions</u> that can also affect people with long COVID—including fatigue, headaches, anxiety, depression and muscle pain.



# **Take-home message**

Some diets, such as a low <u>histamine</u> diet, are not currently backed up by enough data when it comes to the management of long COVID.

But a varied Mediterranean diet or well managed <u>plant-based diet</u> can provide <u>certain nutrients</u> which have positive effects on immune function and may protect against chronic inflammation. That said, more research is still needed as to how these diets may affect long COVID.

If you're considering changing your <u>diet</u> to manage long COVID <u>symptoms</u>, it's best to consult your GP first to ensure you can do so safely.

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