

Drink  
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## Get a taste for aperitivo and bring Italy to your lockdown

I love the concept of the Italian-style aperitivo, a glass of something chilled and a few well-chosen nibbles and good company. It may not sound too different to a French aperitif or Spanish tapas but the 'Aperitivo' is a unique event in itself that is as much about the food as the drink, not only in the chicest bars of Venice or Milan where the custom originates, but across Italy. Each bar creates its own experience – some have elevated the whole event into an artform with elaborately designed morsels to accompany the drinks. I have to say that I've really been enjoying my own little aperitivos these last few weeks, it has been one of those little moments of pleasure during lockdown. Preparing a drink and a few choice nibbles (cichetti as they are known in Venice) can be very simple, slices of cheese and Parma ham, a bowl of olives, a handful of roasted cashews, or become an elaborate affair depending on how much time you have (there are plenty of ideas online). These have been moments to feel a bit more staycation than house arrest, time to enjoy a calm moment, a few early evening rays when the stresses of working from home, home-schooling, and missing family and friends is eased, if only for short while. It has also slotted in nicely to coincide with those after-work Zoom catchups.

Aperitivo comes from the word to open and relates to opening the appetite and getting the digestive juices flowing before a meal. However, it clearly translates to images of opening up a conversation with friend or opening the door, even if that is only metaphorical right now!

And what to drink? Many of the drinks are focussed around vermouths and citrus or botanical infused liqueurs or even cocktails. The idea being that the various herbs and spices in these drinks that give a slightly bitter, and in some examples an almost medicinal, character to the drink were thought to aid digestion as well as be a pleasant and food friendly drink.

As you might imagine Antonio Benedetto Carpano, one of the first producers of vermouth in Turin in the late 1700s (although

there are examples going back as far as China in 1250BC) was a great marketer of the aperitivo – some say he even invented it. These vermouths are generally made from white wine and an infusion of up to 30 botanicals (herbs and spices) and fruit flavours fortified with a spirit and sweetened, depending on the style. Vermouths can vary in style from dry to sweet, and white to red depending on the flavours blended, where generally the darker the colour, the more intense and bitter the flavours.

But how to drink it? Neat over ice to really enjoy the herbaceous or fruity flavours of a sweet, red Vermouth, or experiment with different gins to whip up a Negroni or Martini (although you may want to wait until later in the evening for that). A rosé Vermouth is great as a spritzer with tonic and/or soda water on a warm evening, and of course the ever-popular Aperol Spritz with Prosecco has become a summer classic with its distinctive orange hue. Whatever your choice, don't forget a twist of orange or lemon. I like to go 50:50 with tonic for a Vermouth & tonic, some even believe that V&T is the new G&T – I will let you be the judge of that.

**Vermouths to try**  
(All available from [masteryofmalt.com](http://masteryofmalt.com))

**Lillet Rose**  
Blended with red and white Grand Cru Bordeaux wines, Peruvian quinine and a combination of sweet and bitter orange peel and fruit liqueurs. Think rose petals and blossom with a dry, citrus tang. £16.45

**Noilly Prat**  
This white vermouth is peppery and dry, which allows the herbal, cedar and thyme flavours to create a long, complex flavour – perfect for a Dry Martini with a lighter, more citrus gin or just over ice with a slice of lemon. £12.95

**Cocchi Storico Vermouth**  
First produced in 1891 this is a classic red vermouth with rich flavours of raisins, bitter peel, orange zest and ripe grape with rich spices, wood and fruit. Perfect for Negroni, or a V&T. £22.90.



# Covid-19 and nutrition: The evidence so far

Shane McAuliffe and James Bradfield, writing on behalf of the NNEdPro Nutrition and Covid-19 Taskforce, based in Cambridge, help us to separate fact from fiction.



Given the considerable interest in the role of nutrition throughout the Covid-19 pandemic, we recently wrote a piece in the *Cambridge Independent* about how to eat well and support your health during such uncertain times.

It seems as though the discussion around what to do, and what not to do has been never-ending, with reports emerging almost daily suggesting new ways to improve health and potentially combat susceptibility to infection or its consequences. While this push for knowledge has fuelled important scientific research and discussion, it has also inevitably led to debate about what is fact, what is fiction and what makes up the grey areas between them.

In reality, Covid-19 is a new disease and so our understanding of its interactions, including those with nutrition, are continually evolving. New evidence that can inform policy and practice is being generated, including in our flagship journal *BMJ Nutrition, Prevention & Health*. In it, we have established a dedicated Covid-19 special collection to help gather emerging research on the relationship between the virus and nutrition, in order to add to what we currently know. In this article, we will outline what this collection has uncovered about the relationship between nutrition and Covid-19 so far.

**How does my diet and nutrition effect my immune system?**

It is generally well understood that poor nutrition, due to either insufficient dietary intake of key nutrients or a poor overall diet quality, can compromise immune function and increase the risk of infection.

Recent interest has focussed on vitamins and minerals, commonly referred to as micronutrients, which are required in small quantities to ensure health and play a key role in supporting the immune system. Our immune system is constantly

carrying out surveillance, but this activity increases if an individual acquires an infection.

This extra work requires additional energy sources, which must come from the diet. Deficiencies, or short supply of these key nutrients, have the potential to impact the way the immune system functions and responds to the threat of infection. This can make us more vulnerable to infectious diseases.

There are many micronutrients that are accepted to have an important role in maintaining our immune system.

These include vitamins A, B6, B12, C, D and folate, as well as trace elements such as zinc, iron, selenium and copper.

For most, eating from a variety of food groups will often be sufficient to meet the nutritional requirements in the general population, and such was the advice in our previous article.

However, in some vulnerable groups diet alone may not be enough to meet individual needs and so supplementation may be required, if advised by a qualified health professional such as dietitians as well as doctors, nurses or pharmacists with training in nutrition.

It is important to remember that this should not be considered as a replacement, but instead as an addition to good dietary practices. Unfortunately, many of those at highest risk during the Covid-19 pandemic are also populations at highest risk of micronutrient deficiencies and poorer overall nutrition.

A number of factors contribute to the risk, including the potential role of old age, ethnicity, obesity, vitamin D deficiency and socio-economic inequalities.

As we age, our immune system does not work as well as before. Ageing can also mean we do not eat as much as we did or that we exercise less.

Given the need for self-quarantine and cocooning through the Covid-19 pandemic, access to food, sunlight and exercise may have decreased. It is important, now more than ever, to ensure that the most vulnerable members of our society are supported and have access to adequate nutrition.

There has rightly been a significant amount of attention given to the disproportionate effect of the virus on ethnic minority populations, with many questions yet to be answered about the basis for the statistics.

**Micronutrients: Key points**

- Specific vitamins and minerals are essential in supporting a healthy immune system for all
- Infections increase the demand on the immune system which may increase nutritional requirements
- Supplementation may be appropriate in certain population groups who struggle to meet requirements through diet alone

**Vitamin D: Key points**

- In the UK, sunlight will not provide us with enough vitamin D all year round
- High dose vitamin D supplementation is currently not advised for the general population
- Severe deficiencies may require additional supplementation under appropriate medical/clinical supervision

**Find out more**

To read more about the NNEdPro Covid-19 Taskforce, including a blog on diet, nutrition and the role of micronutrients, visit [nnedpro.org.uk/coronavirus](http://nnedpro.org.uk/coronavirus)

For more information about NNEdPro, visit [nnedpro.org.uk](http://nnedpro.org.uk)

For Change4Life healthy recipes, go to [nhs.uk/change4life/recipes](http://nhs.uk/change4life/recipes)

**Spotlight on vitamin D**

A common thread through these discussions has been the role of vitamin D, which has been open to variable interpretation in the media in recent weeks. In light of this interest, *BMJ Nutrition, Prevention and Health* has published two recent peer-reviewed articles on the topic. Avoiding vitamin D deficiency is important for health and so measures to prevent deficiency should always be supported.

Our primary source of vitamin D, which is a pro-hormone rather than a classical vitamin, comes from sunlight exposure, through the ability of our skin to produce it from UVB rays. Additional sources of vitamin D include dietary sources, although it is generally present in small amounts, as well as moderately dosed vitamin D supplements in those who need them.

The latter is particularly important for those who are at highest risk of deficiency.

At certain times of the year, when sufficient sunlight is not available, those of us living in northern latitudes (such as the UK, Ireland and northern Europe) have poor vitamin D status. This is especially true in winter (in fact, from September to March/April) or if we are confined indoors.

Advice from the government is that anyone who is self-isolating with limited access to sunlight is advised to take a vitamin D supplement (400IU/day or 10mcg for the UK).

Consequently, interest in the role of high-dose supplements and their potential to prevent or treat Covid-19 has risen. Currently, there is not

enough scientific evidence to support these high doses of vitamin D in the general population and – due to concerns around potential harm from excessive amounts – the use of high-dose supplements is not advised routinely.

However, cases of severe deficiency may require treatment with higher doses under appropriate clinical supervision.

At times there has been confusion between general population-level recommendations around interventions that are safe and effective for the majority of the population versus individual-level recommendations which need to be specific to the needs of individuals as determined by clinical testing and supervised treatment.

The amount of sunlight required to generate enough vitamin D differs for different skin types. For this reason, darker skin tone tends to be associated with much lower vitamin D levels than lighter skin tones, particularly at higher latitudes and during the months of winter and early spring.

For those of skin type V and VI (brown or black skin) the exposure requirements in UK sunlight are more challenging to achieve than for white-skinned people and this means that supplemental vitamin D intake is especially important.

**What does it mean?**

So what does all of this mean? Put simply, good nutrition creates an internal environment that helps the immune system to respond appropriately to the challenge of infection.

On the other hand, poor nutrition can lead to an ill-equipped immune system which cannot respond as well. In addition, we know that correcting one or more nutrient deficiencies, when these exist, can improve the way our immune system responds and increases the chance of a good outcome.

Some members of our population are more susceptible to nutrient deficiencies, with many of these groups appearing to be at highest risk during the Covid-19 pandemic.

For these reasons, promoting good dietary practices at this time will be extremely important, while bearing in mind that individual requirements will be varied and there are some who will require extra attention.

**About NNEdPro**

NNEdPro Global Centre for Nutrition and Health is an award-winning think-tank with more than a decade of experience in nutrition education, research and innovation. Based at St John's Innovation Centre in Cambridge, it has regional networks across six continents. A not-for-profit social enterprise, NNEdPro develops educational models to improve nutrition in health systems, and conducts training courses and research studies.

Food Sources (Based on USDA 2019)	Key Nutrients	Importance
Broccoli, spinach, kale, dairy, fish, eggs	Vitamin A (retinol)	Role in the regulation of innate and cell-mediated immunity and humoral antibody responses (Alpert, 2017)
Oranges, peppers, onions, cabbage, green leafy vegetables (kale, spinach), sprouts, citrus fruits, mango, strawberries	Vitamin C	Dose of > 200 mg/d supports reduction in risk, severity and duration of upper and lower respiratory tract infections. Requirements for vitamin C increase during infection (Carr & Magini, 2017)
Fish (salmon), dairy products (milk, cheese), red meat	Vitamin D	Daily supplementation of vitamin D reduces the risk of upper respiratory tract infections (BMJ, 2017)
Vegetable oils (wheat germ, sunflower and safflower), nuts (peanuts, hazelnuts, almonds), sunflower seeds, green vegetables (spinach and broccoli), fortified foods (breakfast cereals, fruit juices, margarine, spreads)	Vitamin E	Vitamin E is a potent antioxidant and has an ability to modulate host immune functions (Moriguchi & Muraga, 2000)
Beef liver/tenderloin fortified cereals, oats, plain fat free yoghurt, milk, mushrooms, almonds, cheese	Vitamin B2 (Riboflavin)	Riboflavin administration affects neutrophil migration but does not alter acquired immune responsiveness (Verdrengh & Tarkowski, 2005)
Chickpeas, meat (beef liver, chicken breast), fish (salmon, tuna) fortified cereals, potatoes, banana	Vitamin B6 (pyridoxine)	Vitamin B6 deficiency impairs lymphocyte maturation and growth and impairs antibody production, T-cell function, and reduction in the size of the thymus gland (Alpert, 2017)
Seafood (clams), meat (beef liver), oily fish (trout, salmon), fish (tuna, haddock), dairy (milk and yoghurt)	Vitamin B12 (cobalamin)	Responsible for cell division and cell growth hence plays an important role in immune function (Alpert, 2017)
Green vegetables (spinach, kale, broccoli), beans and legumes, oranges, whole grain, meat (poultry, pork, liver), shellfish	Vitamin B9 (folate)	Plays an important role in cell division, and cell production in blood forming organs and bone marrow (Alpert, 2017)
Haem sources – red meat, liver and other organ meats; non-haem sources – spinach, legumes, quinoa	Iron	The role of iron in immunity is in immune cell proliferation and maturation, specifically lymphocytes, associated with generating responses to infection (Alpert, 2017)
Shellfish (oysters, crab, lobster), pork chop, baked beans, fortified breakfast cereal, pumpkin seeds	Zinc	Marginal zinc deficiency can impact immunity. Those deficient in zinc, particularly children, are prone to increased diarrhoeal and respiratory morbidity (Gammoh & Rink, 2017)
Brazil nuts, fish (tuna, sardines), shellfish (prawns), meat (turkey, beef stack, chicken), egg, cottage cheese	Selenium	Influences the innate and acquired immune systems (Rayman, 2012)
Almonds, spinach, cashews, cereal, beans (black beans, edamame)	Magnesium	Magnesium-dependent functions in the synthesis, release, and activity of cells of the immune system have been reported from in vivo and in vitro studies (Kubenam, 1994)
Beef liver, shellfish (oysters, crab), potatoes, mushrooms (shiitake), cashews, sunflower seeds	Copper	The immune system requires copper to perform several of its functions (Alpert, 2017)