



Food as medicine to support fighting viral infections

The COVID-19 virus infection has been officially upgraded to a pandemic status in Australia and we are flooded with media reports and official government announcements 24/7. It looks like fear and anxiety are spreading faster than the virus.

Amid this negative information overload, it's important to get the facts about the virus rather than many inaccurate stories created around it.

From what we know so far, the corona COVID-19 virus is an emerging virus requiring a cautious approach as it can't be compared with the previous corona viruses infections. For this reason, we are not able to predict its full impact on individuals and communities at present. As such, it's imperative to be aware of the known facts and health advice as communicated by the Chief Medical Officer, state health ministers as well as World Health Organisation (WHO) through their press releases and websites.

In situations like this where there are many factors out of our control, it's helpful to consider and look for things that we can do something about and focus on them.

Consequently, whilst following the official guidelines, seeking for other options such as nutritional and complementary therapies is a reasonable option to consider for many people, since there is no fully effective medication or vaccine for the COVID-19 virus at the present time.

Fortunately, there is much that can be done to support the immune system in its fight against infections, and to help the body to strengthen defencing mechanisms by implementing a few basic nutrition and lifestyle adjustments.

These include:

- Eating high quality, fresh produce containing immune and gut supporting nutrients
- Good hydration, drinking adequate amounts of clean water
- Prioritising sleep and enough rest
- Getting a daily dose of sunshine to increase levels of immune supporting vitamin D
- Moderate exercise (such as walking) in open spaces such as parks
- Utilising stress release methods of your choice to reduce the daily negative news effects on the nervous and immune systems

These simple measures can be undertaken either as prevention or alongside medication, if you happen to be sick or recovering. Combined, the steps constitute a powerful strategy to support your health and wellbeing.

Did you know that it's possible to support your immune system through your gut, as they are closely connected?

WE know that around 70% of the immune system is located in and around the gut. It's where the body is potentially exposed to the pathogens present in the food we eat, water we drink and air we breathe. Therefore, it needs to have a good defence system there.

This is good news as evaluating your current food intake and making specific modifications would be an easy first step to supporting these defence systems.

Most of us know that eating good quality (ideally organic) fresh food gives the body the raw materials needed to strengthen the tissues and organs, and to make the compounds necessary for proper functioning of the immune system and the gut, among others. So, looking at food as your medicine is very empowering and would totally transform your relationship with food, the main pillar of good health.

The microbiome (our gut flora) located in the gut constantly communicates with the immune system alerting it to any pathogens present. The gut bacteria also have many other key functions, including producing vitamins, neurotransmitters for the brain and other compounds needed for body systems to work well. It also extracts phytochemicals (plant chemicals) from the colourful plants we eat to be used for the thousands of biochemical reactions in the body happening every minute.

Therefore, supporting the microbiome by nurturing the resident bacteria and providing probiotics from food or supplements (when required) is of key importance before, during and after any infection.

Probiotics are live microorganisms that, when taken in adequate amounts, have health benefits. From a nutritional perspective, probiotics are defined as "a live food ingredient that is beneficial to health" (International Life Sciences Institute).

There are many foods containing probiotics, but fermented foods are known to be the richest natural sources of probiotics. They contain hundreds if not thousands of different probiotic strains, some of them still unknown.

Fermented foods have been used by humans since ancient times to preserve food for winter and extract valuable nutrients that are made available through the fermentation process. These include fermented vegetables, sauerkraut, kimchi, yoghurt and kefir – arguably the most abundant and bioavailable source of probiotics and beneficial yeast.

Although probiotics have been part of humans' daily food for a long time, research on the role of these living food compounds is only recent. At present, microbiome research is one of the most intensive areas of scientific study, as we are starting to better understand how specific probiotic strains may have beneficial effects on certain health conditions.

To date, the majority of studies have been conducted on animals but now there are more human studies being done and the results reported in the scientific literature. There is little doubt that the research will reveal new uses for probiotics and probiotic foods as we go.

Interestingly, research suggests that dairy, especially kefir and yoghurt, appears to work as an ideal transport medium for probiotic bacteria, enhancing their survival through the stomach and small intestine on their travel to the large intestine where they live (1).

It's estimated that around 100 TIMES LESS probiotic bacteria can be given when mixed in kefir or yoghurt, than in freeze-dried supplements to achieve similar numbers of live organisms in the gut. Food is a great medicine indeed!

Tummify food-based probiotic, contains 13 specific strains of bacteria and was developed based on the current scientific research into how certain strains of bacteria support the body's defence mechanisms, the gut and overall health.

Probiotics and prebiotics (food for the good bacteria) have long been appreciated for their positive influences on gut health. However, current research on their mechanisms and effects suggests that their impact reaches beyond the intestine and includes the immune system, the brain and the lungs (2).

Research to date points to a growing body of evidence demonstrating an interaction between the intestinal microbiota and the immune system. There are indications from experimental models as well as from human dietary intervention studies that food based probiotics and prebiotics modulate various systemic immune markers. The interaction with the immune system translates into improved resistance against infection (3).

A number of strains present in Tummify were studied and their applications were evaluated in selected health conditions, including viral infections and immune system dysfunction.

The following probiotic strains present in Tummify have scientific evidence of efficacy behind them:

- *Bifidobacterium animalis subsp. lactis BB-12(®)* is the world's most researched probiotic from the Bifidobacterium family. It is described in more than 300 scientific publications out of which more than 130 are publications of human clinical studies (4).

In terms of supporting the immune function, clinical studies have shown that BB-12(®) increases the body's resistance to common respiratory infections and reduces the incidence of acute respiratory tract infections (5).

- *Lactococcus lactis subsp. cremoris* – an animal study suggests that oral administration of milk fermented with *L. cremoris* protected mice against influenza virus infection (6).
- *Lactobacillus delbrueckii ssp. bulgaricus OLL1073R-1*
 - Study 1: feeding of yogurt fermented with *Lactobacillus delbrueckii ssp. bulgaricus OLL1073R-1* was reported to have immune-stimulatory effects on influenza virus infection in mice and humans and may play a supporting role in achieving a more effective treatment of influenza (7).
 - Study 2: on reducing the risk of infection in the elderly by dietary intake of yoghurt fermented with *Lactobacillus delbrueckii ssp. bulgaricus OLL1073R-1*. It concluded that consumption of yoghurt fermented with this probiotic strain increased natural killer cell activity (immune cells involved in fighting viruses) and reduced the risk of catching the common cold in healthy elderly individuals (8).

- *Streptococcus thermophilus* and *Lactobacillus delbrueckii ssp. bulgaricus* OLL1073R-1 – yoghurt produced through fermentation of milk with these two strains exhibited marked immune-modulatory effects, such as the activation of biological defence mechanisms and natural killer cell activation (9).

As discussed above, there are many natural strategies to draw upon in current circumstances of the national health emergency. Using food as medicine is one of them.

Probiotics in particular deserve special attention due to the importance of gut microbiota in health maintenance and disease prevention given their traditional use as well as clinical studies showing that probiotics decrease bacterial and viral respiratory tract infections (10).

Not all probiotic supplements are created equal, so do your research and choose one that is backed by science and contains therapeutic amounts of good bacteria.

References:

- (1) <https://bit.ly/32Pxill>
- (2) <https://www.ncbi.nlm.nih.gov/pubmed/18038940/>
- (3) <https://academic.oup.com/nutritionreviews/article/65/11/469/1907380>
- (4) <https://www.ncbi.nlm.nih.gov/pubmed/27682233>
- (5) <https://www.ncbi.nlm.nih.gov/pubmed/20071048/>
- (6) <https://www.ncbi.nlm.nih.gov/pubmed/22642647/>
- (7) <https://www.ncbi.nlm.nih.gov/pubmed/31495632>
- (8) <https://www.ncbi.nlm.nih.gov/pubmed/?term=Makino+et+al.%2C+Br.+J.+Nutr.%2C+104%2C+998%E2%80%931006%2C+2010>
- (9) <https://www.ncbi.nlm.nih.gov/pubmed/31495632>
- (10) <https://www.ncbi.nlm.nih.gov/pubmed/25926507>

Author: Joanna Sochan

Qualifications: <https://www.naturimedica.com/about-2/>