

By Dr TEE E SIONG

THE Covid-19 pandemic is at the forefront of everyone's mind, having affected nearly 12 million people and killed more than half a million across the globe to date.

The disease is caused by the coronavirus called SARS-CoV-2, which attacks the immune system when it enters the body and destroys the lungs, heart and many other major organs.

It is therefore not surprising that there is suddenly immense interest on how to strengthen the immune system, hoping to ward off this highly contagious virus.

Our immune system is a truly complex network that includes our skin, gut, spleen, liver and lymph nodes.

Together, they work to defend our body against infection from harmful pathogens such as bacteria and viruses.

A common immediate response against this threat is the release of white blood cells and other immune compounds to eliminate these foreign bodies.

In the absence of a vaccine, having a strong immune system is probably the best defence against Covid-19.

Based on clinical observations thus far, the majority of Covid-19 patients who became severely ill or developed critical symptoms (thus leading to a higher death rate after contracting the virus) were people with a weaker immune system, e.g. elderly patients or those with underlying conditions such as diabetes, obesity and hypertension.

These observations clearly underscore the importance of having a strong immune system.

### Good nutrition, good immunity

One of the main keys to strengthening our immune system is good nutrition.

Thus far, there is no scientific evidence that by itself, any particular food, supplement or herbal preparation can improve the immune system.

Good nutrition means having a balanced, moderate, varied and nutrient-packed diet.

Start by paying particular attention to the following:

#### > Eat balanced meals in appropriate amounts

Remember the principles of Balance, Moderation and Variety (BMV)?

They represent the basics of a healthy diet.

What it essentially means is that one should have balanced meals that contain all the key food groups, consume these meals in moderate amounts so as not to overeat and choose a variety of different food types in each food group.

Doing so will ensure that your body receives the appropriate amounts of energy and nutrients that it needs for various functions, including those required by your immune system.

# EATING FOR IMMUNITY

One of the best ways to boost your immune system is to maintain a healthy diet.

#### > Consume more vegetables and fruits

These contain vitamins and minerals, as well as phytonutrients that can act as antioxidants to boost your immune system so that it can fight off foreign pathogens.

Consume a variety of vegetables and fruits with different colours, to ensure getting an assortment of these nutrients.

#### > Prepare meals at home more often

Cook at home more often so that you can prepare healthier meals for your family.

This is because you will be able to select and use healthier ingredients and cooking methods, as you will have full control of the entire process.

### Balancing gut bacteria

In the complex network of the immune system, the gut is particularly important, with up to 80% of the immune system concentrated there.

There is a huge population of 100 trillion microorganisms in the gut, which is 10 times more than the total number of human body cells.

Within this population (called the gut microbiota), there are up to a thousand species of bacteria.

In order for our immune system to gain the most benefit from the gut microbiota, a healthy balance of good and bad bacteria is necessary.

A balanced gut microbiota helps us to maintain a healthy gut, which is important for regulating various functions, including digestion; breaking down potentially toxic compounds; blocking pathogenic compounds from entering the

body; and helping to strengthen the immune system.

An imbalance occurs when there is a higher proportion of "bad bacteria" in the gut microbiota.

This can bring about various gut-related problems, e.g. diarrhoea, constipation, excessive bloating, burping and abdominal discomfort.

So it makes sense to take care of our gut microbiota in order to help build a strong immune system, which then increases our body's ability to fight bacterial and viral attacks.

And this can be achieved through various dietary approaches.

### Caring for our gut

Again, a balanced, varied diet is the cornerstone to caring for the gut microbiota.

In addition, there are several dietary factors that play key roles in the health of our gut microbiota.

Eat fruits, vegetables and other plant-based foods, and be as diverse as possible!

This will help the "good bacteria" in your gut microbiota to achieve greater dominance.

At the same time, the dietary fibres from fruits and vegetables, legumes, and whole grains, also help you regulate bowel movement to help keep your gut healthy.

Dietary fibres are important because certain plant components, such as those found in garlic, onion and bananas, act as prebiotics.

Prebiotics are the "food" that good bacteria need.

Did you know that you can also directly replenish the population of good bacteria in your gut?

Probiotics are live microorganisms that are able to provide health benefits to the human body, including interacting with gut microbiota to strengthen the immune system.

They can be found in many different types of foods, e.g. cultured milk drinks, yoghurt, kefir and dietary supplements.

It should also be emphasised that intake of high-fat foods should be avoided as these are not conducive to the production of good bacteria.

We know very well that intake of high-fat foods will result in too much calorie consumption, which may then lead to us having an overweight problem!

Nutritionists have also long emphasised the importance of regular physical activity – it is the key to getting rid of the excess calories consumed and thereby maintaining an

ideal body weight.

It is now known that exercise can also enhance the number of beneficial microbial species, thereby promoting better immune status.

If you are still concerned about doing physical activities outside during this recovery phase of the movement control order (MCO), there are many indoor activities that can you can do to remain physically active even when staying at home.

These include doing household chores, playing with your kids inside your home compound, taking the stairs, or doing any type of indoor exercises (e.g. yoga, pilates, stationary cycling, resistance training, etc).

If there is a will, there is a way!

### Everything is linked

Healthy eating, physical activity, good gut health and strong immunity are all inter-related.

Don't fall into the trap of relying solely on a single food item to boost your health, as there are no shortcuts or magic bullets to build up and maintain a healthy immune system.

You cannot do it overnight.

There is a great deal of interest in immunity now as we are fighting Covid-19.

But healthy eating to build a strong immune system is not just for fighting this pandemic.

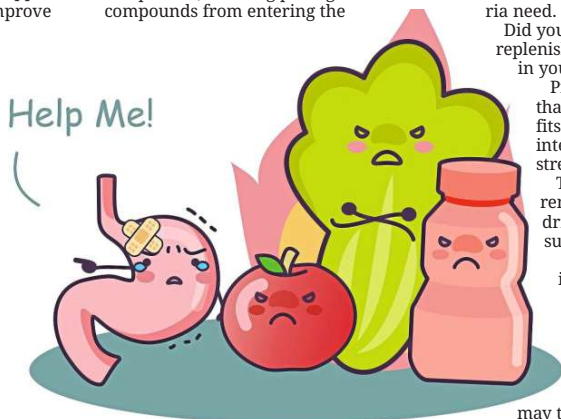
Having a healthy immune system is for all times, as our body is constantly being challenged with various pathogens.

Healthy eating can help prevent the double burden of malnutrition, i.e. undernutrition (such as underweight, stunting and anaemia) and overnutrition (e.g. obesity and related health problems like diabetes, heart disease and cancers).

There is no better time than now to empower yourself with the essentials of healthy nutrition and an active lifestyle.

Invest in healthy nutrition now for a healthier future.

Dr Tee E Siong is the chairman of the Probiotics Education Programme (PEP) and president of the Nutrition Society of Malaysia (NSM). This article is contributed by NSM's PEP and supported by Malaysia Milk Sdn Bhd (Vitagen). For more information, visit [www.nutriweb.org.my/probiotics](http://www.nutriweb.org.my/probiotics). The information provided is for educational purposes only and should not be considered as medical advice. *The Star* does not give any warranty on accuracy, completeness, functionality, usefulness or other assurances as to the content appearing in this column. *The Star* disclaims all responsibility for any losses, damage to property or personal injury suffered directly or indirectly from reliance on such information.



Foods containing prebiotics and probiotics help support the health of our gut, which plays a major role in our immune system. — Positive Parenting