

## **Probiotics: The Friendly Bacteria That Your Gut Needs**

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When we talk about bacteria, we often regard them as our enemy – bad, harmful and causing illness. But did you know that there are also bacteria that are “friendly”? This group of beneficial “friendly” bacteria is known as probiotics.

Probiotics are defined as live microorganisms that have been scientifically proven to provide health benefits to human when consumed adequately. Because of their health benefits, probiotics have been incorporated in all sorts of food products and formulated into various dietary supplements.

Many strains of probiotics have been identified, and two of the most common ones are from the *Lactobacillus* and *Bifidobacterium* families. Only probiotics approved by the Ministry of Health regulations are permitted to be used in foods and beverages and in supplements.

### **Why do we need probiotics?**

Many studies are on-going and have been done on probiotics, revealing various beneficial effects of consuming probiotics on our overall health and well-being. These health benefits are linked to how probiotics can positively contribute to our gut health and immunity.

To talk about the role of probiotics in improving gut health, we need to know about the gut microbiota. The gut microbiota refers to the trillions of bacterial cells residing in our digestive system, particularly in the large intestine. The gut microbiota comprises beneficial or “friendly” bacteria, as well as harmful, pathogenic bacteria. Maintaining a healthy balance or ratio of good and bad bacteria in the gut microbiota is key to gut health.

This is where probiotics come into the picture. Regular probiotic consumption can help increase or sustain the number of good bacteria in the gut microbiota, thereby improving gut health. Good gut health leads to better digestion of foods and prevents gastrointestinal issues, such as irritable bowel syndrome (IBS), ulcerative colitis, indigestion, diarrhoea, etc.

On top of that, probiotics have been shown to play a significant role in our immune system. In fact, around 70-80% of the immune cells in our body are located in the gut. Consumption of probiotics replenishes the beneficial bacteria in the gut microbiota.

These good bacteria contribute to the immune system by forming a barrier on the intestinal walls that helps to prevent bad bacteria from entering the body, as well as by playing key roles in modulating the immune system by responding to invading pathogens. Probiotics have also been studied for their protective effect against allergies.

### **How to incorporate probiotics in diet?**

Incorporating probiotics into our diet is as easy as consuming more foods and products that are rich in probiotics. Probiotic-containing foods may also be incorporated into another dish, but they cannot be cooked with high temperature. Some common sources of probiotics are cultured milk and fermented milk products containing probiotic cultures, traditionally fermented foods, as well as probiotic supplements.

Some traditionally fermented foods, such as *tempeh*, yoghurt (*tairu*), *tapai*, *kimchi*, *sauerkraut* or *kefir*, may contain beneficial bacteria. However, these microorganisms may not meet the criteria to identify as probiotics. On the other hand, food science innovations have helped ensure that probiotics are

sufficiently incorporated into cultured and fermented milk products. Only products that fulfil the required criteria can be called probiotic-containing foods. Another option is to look for probiotic supplements in powdered sachet, tablet or pill/capsule form.

### Tips for a healthy gut

Besides taking probiotic-rich foods, a healthy diet and lifestyle is also important to promote good gut health. Here are some tips to follow:

- **Practise Balance, Moderation and Variety (BMV).** Refer to the Malaysian Food Pyramid to ensure that your daily diet follows the BMV principle. The Food Pyramid can be used together with the Malaysian Healthy Plate (Quarter-Quarter-Half) as a guide to practise healthy eating.
- **Include fibre-rich foods.** Dietary fibre helps to keep foods moving through the digestive tract more easily. Make sure you get sufficient intake of dietary fibre from fibre-rich foods such as vegetables, fruits, legumes, whole grains and wholegrain products.
- **Reduce fried foods.** Oily foods are more difficult to digest and can delay gastric emptying. Opt for healthier cooking methods such as steaming, baking and grilling.
- **Drink plenty of water.** Sufficient hydration is important to aid in food digestion and prevent constipation.
- **Be physically active.** Aim for at least 150 minutes of moderate-intensity activity or 75 minutes of vigorous activity per week and reduce sedentary time.
- **Get enough sleep and rest.** Adults should get at least 7 hours of sleep every night, while children should get more sleep according to their age.
- **Manage stress.** Take care of your mental health and find healthy ways to deal with daily stress, e.g. listening to music, doing yoga or meditation, spending time with friends and family.

### How to look for genuine probiotic products?

Probiotics are receiving more attention from the public nowadays due to the growing evidences of their health benefits. Hence, more probiotic products are being introduced to the market. To regulate these products and help consumers identify genuine probiotic-containing food products, the government has passed Regulation 26A in the Malaysian Food Regulation 1985.

According to the regulation, genuine probiotic-containing food products should:

- **Only contain permitted probiotic cultures:** Currently, only 32 probiotic strains have been approved by the authority to be added into foods and beverages. The strains consist of both *Bifidobacterium* and *Lactobacillus* species. This is to ensure that the probiotics used are proven to be safe and beneficial to consumers.
- **Contain adequate numbers of live microorganisms:** The probiotic cultures must remain viable (live) throughout the shelf life and the number of bacteria cells should not be less than  $10^6$  cfu/ml or cfu/g. This is the minimum concentration of cultures required to obtain the health benefits of probiotics.
- **Follow the labelling requirements by clearly showing:**
  - **The statement to indicate the presence of live microorganisms**, e.g. “Live cultures” or “Contains live microorganisms”
  - **The number of probiotic cultures**, e.g. “Contains  $10^6$  cfu/ml of probiotic culture”
  - **The genus, species and strain** of the probiotic cultures added
  - **The direction for storage** before and after the package is opened

Looking at the benefits provided by probiotics, they are indeed the “friend” needed by our gut and digestive system. Thus, incorporating probiotics in the daily diet should be part of our plan to maintain



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our gut health and overall well-being. But make sure to get genuine probiotic-containing food products from the market, so that you can guarantee their safety and effectiveness. Remember: Good gut microbiota leads to good gut health, which is the key to overall health.

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