



WORDS LIM TECK CHOON

In early April, the Nutrition Society of Malaysia launched the Probiotics Education Programme (PEP) to promote greater awareness on the importance of digestive health via a combination of good dietary and lifestyle habits (the former includes the incorporation of probiotics into one's diet). *HealthToday* was right there during the launch, and we're glad to share some words of wisdom from the expert speakers with you.

The bulk of the information in this article is courtesy of the Probiotics Education Programme. Visit www.nutriweb.org.my/probiotics for more information on both the programme and healthy gut health.



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THERE ARE ABOUT 100 TRILLION MICROORGANISMS IN OUR GUT, SOME OF THEM BENEFICIAL TO OUR HEALTH.

WELCOME TO THE GUT, POPULATION 100 TRILLION

The most populated city in the world, Guangzhou, has over 14 million people, and the population of the world is estimated to reach nearly 10 billion by 2050. If you think these figures are big, consider this: it is estimated that we have about 100 trillion microorganisms living in our digestive system, mostly in our large intestine. And just like the population of the world, these microorganisms come in different types: these 100 trillion are made up of about 1,000 different species.

No, it's not because our food is contaminated or that we have been somehow infected. The microorganism population – also known as the **gut microbiota** – occurs naturally, as our guests move in from our mother's digestive system via methods such as breast milk and skin-to-skin contact. By the time we are three years old, we will have gut microbiota that will remain more or less stable for the rest of our lives.

But Are They Nice Guests?

With so many types of bacteria living in our gut, we are bound to have some that will provide us with certain health benefits, while others can cause trouble. The key here is balance – as long as there are more of the helpful types living in our gut, their benefits can counter or minimize the problems caused by the not-so-helpful types.

Good Things Happen When the Balance Is Right

- ✓ **Better bowel movement.** The gut microbiota helps to ensure proper gut movement and digestive function.
- ✓ **Production of important nutrients.** Some of the helpful microorganisms produce certain vitamins such as vitamins B12 and K.
- ✓ **Helps improve the digestion of our foods.** Our body may not be able to digest all of the components in the foods we eat; the gut microbiota can help by breaking down some of these indigestible components.
- ✓ **Helps get rid of harmful**

substances. The gut microbiota can also help break down potentially toxic substances that find their way into our gut.

- ✓ **Strengthens our defence against infections.** These microorganisms can also prevent potentially harmful germs from settling in our gut as well as help strengthen our immune system.

On the Other Hand, When the Balance Is Off, Unpleasant Things May Happen

Some of the potential issues that can arise when the less beneficial bacteria outnumber the helpful ones are:

- Bowel habit changes such as diarrhoea and constipation. While these are rarely life-threatening, they can cause pain and discomfort.
- Excessive bloating and burping as well as abdominal discomfort.
- Excessive fatigue and inability to concentrate well.

GETTING THE GUT BALANCE RIGHT

According to the experts speaking at the PEP launch, we are on the right track if we are already practising the fundamentals of healthy living – healthy, balanced diet and regular physical activity.



#1 Eat a Variety of Foods from All Food Groups in the Recommended Portion Size

The Malaysian Food Pyramid is a good guide when it comes to the types of foods to eat as well as the recommended daily servings of each food group.

Some points of note:

- **Dietary fibre is good for the gut.** Fruits, vegetables, whole grains and legumes (bean and nuts) are good sources of dietary fibre. They provide bulk and help in bowel movement. Some dietary fibres can function as prebiotics, or food for the



microorganisms in our gut microbiota in order for them to thrive.

- **Consider probiotic-rich foods.** There are foods with added probiotics, such as yoghurt and other dairy products as well as cultured drinks. Probiotics will be discussed in depth in the next page.
- **Cut down on fried, oily and greasy foods.** Not only do these foods increase the risk of various health problems (especially heart diseases), they also tend to be more difficult to digest.
- **Drink at least eight glasses of water every day.** Fluids don't just keep us hydrated, they also help to create an optimal gut environment for our gut microbiota to thrive, as well as improve digestion and keep constipation at bay.

For more tips on good nutrition, download the *Malaysian Dietary Guidelines* (published by the Ministry of Health Malaysia; it's

available free on their website) or visit the Nutrition Society of Malaysia's website (www.nutriweb.org.my).

#2 Be Physically Active Every Day

Among the many benefits of maintaining a healthy weight is our digestive system functioning in tip-top condition. Therefore, let's make it a goal to be physically active for **at least 30 minutes every day**.

For those of us who are unsure as to how to start, there are some valuable tips in both the *Malaysian Dietary Guidelines* and the Nutrition Society of Malaysia's website (www.nutriweb.org.my).

Don't forget to get plenty of sleep and go for regular health check-ups – these little "extras" also help to maintain both gut health and overall health.

PROBING INTO PROBIOTICS

Probiotics are defined by the World Health Organization as live microorganisms which have been researched, tested and found to provide health benefits to us when consumed in adequate amounts.

Here are two common food sources of probiotics.

Cultured Milk and Fermented Milk Products



Our Ministry of Health has gazetted a food regulation that permits the addition of probiotics to foods such as fermented milk products (yoghurt, cheese, sour cream, *kefir*, etc) and cultured milk. There are many types of probiotics that can be used for this purpose; some of the most commonly used ones are *Lactobacillus* and *Bifidobacterium*.

Note that not all cultured milk contains probiotics. Check the package label before you buy.

To make sure that we buy genuine probiotic-enriched foods, we should check the food label for the following:

- The phrase "Live probiotic cultures" should be present.
- The type of probiotics present (genus, species and strain)

should be indicated. These are usually presented in italics, for example *Lactobacillus casei*.

- The amount of probiotics present should be stated, and the number should not be less than 10^6 cfu/ml or cfu/g

It is also good to take note of the directions for storage before and after the package is opened, to ensure that the food will not spoil.

Home-Cooked Fermented Foods



There are many delicious fermented dishes that can be good sources of gut-friendly bacteria. Here are just some examples from around the world:

- Our very own *tapai pulut*, a delicious dessert made from fermented glutinous rice.
- From Korea, we have *kimchi*, which is usually loaded with vitamins A, B and C as well as good bacteria from the *Lactobacillus* group.
- If you fancy a taste of Germany, there is the crunchy and sour *sauerkraut*.

There are many recipes available online for those of us who are in the mood for some home-cooked gut-friendly bacteria

goodness. However, just like with all types of foods, enjoy them in moderation!

Probiotic supplements



Probiotic supplements are also available, in either pill or powder form. We can refer to a pharmacist or nutritionist for more information. **HT**

Probiotics & Health Concerns

- Probiotics are generally safe for pregnant and breastfeeding women. However, it's always good to check with the doctor first.
- Most children can consume probiotics safely. However, check with a doctor before giving any to an infant.
- People with diarrhoea can take probiotics. In fact, doing so may help restore the gut microbiota to normal.
- Side effects are not common. However, some people may experience flatulence and minor stomach ache when consuming probiotics over the recommended dosage!