6 Food For Thought FIT FOR LIFE, SUNDAY 17 JUNE 2018

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THE digestive system has a significant role in maintaining a healthy body. The gut includes the mouth, oesophagus, stomach, small and large intestines as well as rectum

and anus.
The gut's primary function is to digest food, converting them to energy and nutrients, which are then utilised by the body.
It also plays a major role in the immune system of the body.

Good gut health is therefore cen-tral to good overall health of the body. The key to the promotion and maintenance of good gut health lies in the gut microbiota.

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Understanding the gut microbiota, why it is crucial for good health and how to keep it in balance becomes crucial in preventing gut-related problems like diarrhoea, constipation and irritable bowel syndrome.

What is the gut microbiota? The gut microbiota is a diverse community of microorganisms in the human digestive tract, mostly in the large intestine. It plays a vital role in ensuring that the digestive system functions efficiently. The entire population of microor-ganisms living in your digestive sys-

tem makes up the gut microbiota, comprising both "good" and "bad" bacteria. It is estimated that there is a population of 100 trillion microorganisms in your gut, including about 1,000 different types or spe

cies of bacteria.

The gut microbiota in a person can weigh up to one to two kg. In fact, it is estimated that in each person, the human cells are outnumbered by the gut microbiota by a ratio of 1:10.

Why is a balanced gut microbiota crucial for health? A balanced gut microbiota is composed of around 85% beneficial

A healthy balance of the gut microbiota is important to ensure proper gut movement and digestive function. A good gut microbiota also breaks down food components that are indigestible by the body, like dietary fibre, as well as potentially toxic food compounds

Pathogenic compounds are also blocked from entering the body when your gut microbiota is balanced

A well-balanced gut microbiota can also synthesise certain vitamins such as vitamin B12 and K, as well as help to strengthen the immune system and maintain overall health.

What happens if the gut microbiota is imbalanced?
An imbalance of gut microbiota, also known as dysbiosis, occurs when the "good" bacteria composi-tion is insufficient to inhibit the "bad" bacteria from damaging the digestive system in your body

Dysbiosis can cause constipation. diarrhoea or "loose" stools, excessive bloating or burping, and changes in bowel habit.

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Imbalance in gut microbiota also leads to tummy discomfort or pain, excessive fatigue, and even lack of concentration.
Note that these are a factorized.

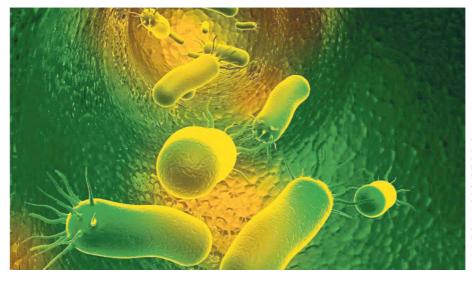
Note that these are non-specific symptoms that may be caused by conditions other than dysbiosis. Consult your doctor if you need clarification.

What determines the composition and balance of gut microbiota?

The composition and balance of gut microbiota in your digestive sys-tem are influenced by many factors. Babies born by vaginal delivery have better gut microbiota develop-

A balanced gut microbiota for a healthy body

The human gut microbiota has been the subject of extensive research in recent years and our knowledge of their potential functional capacity is rapidly growing



Understanding the gut microbiota, why it is crucial for good health and how to keep it in bal-ance becomes crucial in preventing gut-re-lated problems like diarrhoea, constipation and irritable bowel syndrome. 123rf.com

ment, as they are exposed to maternal vaginal bacteria at birth, which provide the initial seeding of gut microbiota

The gut microbiota of full-term infants is also more diverse and balanced than preterm infants. Moreover, breast-fed newborns have a more stable and uniform population of bacteria when com-pared to formula-fed babies. Mother's milk also helps the ini-

tial seeding of gut microbiota, as it is rich in prebiotics and contains more than 600 species of bacteria. Apart from that, dietary intake

Apart from that, dietary intake can also regulate the composition and balance of gut microbiota. For example, high-fat or high-sugar diets are known to cause gut dysbi-osis, while a balanced and varied diet that is rich in fibre can promote a healthy gut microbiota. Other factors can also affect gut

microbiota. Evidence has revealed that regular physical exercise improves diversity and increase the quantity of "good" bacteria in gut microbiota.

The intake of certain medications. especially broad-spectrum antibiotics, can upset the balance of gut microbiota. Researchers have reported that smoking and stress have a negative impact on the over-all function of the gut.

How can you improve gut health?

health?

There are many ways to maintain the balance of gut microbiota and improve gut health.

The best approach is by practising a balanced, moderate and var-

ied diet, based on the Malaysian Food Pyramid.
Also, consume more foods rich in

Also, Consume more roots from in fibre, such as legumes, whole grains, vegetables and fruits, as fibre helps food to move through the digestive tract smoothly. Include more probiotic- and preb-istic risk foods in your diet for a

iotic-rich foods in your diet for a healthy gut and a balanced gut microbiota. Reduce the intake of fried and fatty foods as these foods

are harder to digest. Drink plenty of plain water to aid in food digestion.

Being physically active can help to ensure that the gut is functioning optimally, while getting enough rest is important to keep the mind and

What are probiotics and how can they help improve gut health?

Probiotics are living microorganisms that are good for your health, especially the digestive system. Most of these are bacteria, also known as "friendly" bacteria.

When consumed in adequate amounts regularly, probiotics are able to help maintain a healthy gut microbiota, which in turn brings about several health benefits

Probiotics are available in various food products and also as a dietary supplement. Commonly available probiotics in the market are spe cific strains belonging to the fami lies of Lactobacillus and

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Breast-fed newborns have a more stable and uniform population of bacteria when compared to formula-fed babies. — AFP



Evidence has revealed that regular physical exercise improves diversity and increase the quantity of 'good' bacteria in gut microbiota. — AFP