

## **‘Gut health and You ‘**



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Dr Chrystal’s vision is to educate and motivate the individual and population towards better health outcomes.

Her mission is to help make sense of the rich Science articles that are important to health to the everyday person through her articles and to highlight the key health issues that affect you.

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In any human body inside and outside lives a microbiome of an estimated 39 trillion microbial cells including bacteria, viruses and fungi. It’s all over your body but mainly in your gut. Your microbiome is closely tied to your health.

The gut microbiome refers to the collective group of microorganisms (i.e., bacteria, virus, and fungi) inhabiting the gastrointestinal tract and producing metabolites vital to human health.<sup>1</sup>

How can an imbalance in your microbiome affect health?

- **Skin-** acne, eczema
- **Your weight-** Some studies have found that overweight people tend to have more of the types of microbes that harvest energy from food and help the body store fat.
- **Brain health-** Anxiety, depression, stress, Alzheimer’s disease
- **Dental issues-** gum disease, cavities
- **Autoimmune disease-** fibromyalgia, lupus, multiple sclerosis, rheumatoid arthritis, and type 1 diabetes

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<sup>1</sup> <https://www.sciencedirect.com/topics/medicine-and-dentistry/gut-microbiome>

- **Allergies and asthma**
- **Inflammatory bowel disease**- Crohn's disease, ulcerative colitis
- **Immunity**

### **Gut-organ axis**

The microbiome in the gut plays an important role in the gut-organ axis.

The gut-organ axis is a bi- or multi-directional, multi-channel communication system that allows the gut and extraintestinal organs to communicate with one another. <sup>2</sup>

It contributes to the production of hormones and neurotransmitters necessary for regulating mood, behaviour, cognition, and immune responses.

The gut microbiome also supports the health and integrity of the intestinal barrier, helping to prevent harmful substances within the GI tract from entering the bloodstream and creating body-wide (systemic) inflammation.<sup>3</sup>

Some things, such as certain diets or antibiotics, can disrupt it.

### **But your lifestyle can help it.**

By supporting a healthy gut microbiome, we can reduce the risk of developing ill health.

### **How can you help your microbiome**

#### **Lifestyle**

Getting enough sleep- Aim for 7-8 hours/night  
Easing stress  
Regular exercise  
Diet: High-fibre foods, probiotics food

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<sup>2</sup> <https://asm.org/articles/2023/january/gut-microbiome-communication-the-gut-organ-axis#:~:text=The%20gut%2Dorgan%20axis%20is,gut%20microbiome%20affects%20human%20health.>

<sup>3</sup> [https://www.medicalnewstoday.com/articles/gut-microbiome-mental-health-crohns?utm\\_source=Sailthru%20Email&utm\\_medium=Email&utm\\_campaign=MNT%20Daily%20News&utm\\_content=2024-09-09&apid=395363889&rvid=57745dcd5600013ccd6bf17470f400c7984eb3c97ebc5b705c40bd9a970f6ad3](https://www.medicalnewstoday.com/articles/gut-microbiome-mental-health-crohns?utm_source=Sailthru%20Email&utm_medium=Email&utm_campaign=MNT%20Daily%20News&utm_content=2024-09-09&apid=395363889&rvid=57745dcd5600013ccd6bf17470f400c7984eb3c97ebc5b705c40bd9a970f6ad3)

## **Prebiotics versus probiotics**

### **Prebiotics**

Prebiotics **don't actually contain bacteria. Prebiotics serve as food for probiotics.**

They are fuel to help bacteria grow. All prebiotics are a type of dietary fibre present in high fibre food such as fruits, vegetables, and whole grains. Examples include whole grains, bananas, greens, onions, garlic, soybeans and artichokes.

### **Probiotics**

Probiotics **are tiny living microorganisms**, including bacteria and yeast present in many fermented foods, including yogurt, tempeh, sauerkraut, kimchi, kefir.

You don't need to take a prebiotic for probiotics to work, but taking them might make your probiotics more effective.

**It is recommended to take both pre and probiotics for good gut health.**

### **Interesting study**<sup>4</sup>:

- **Eating up to three servings of kimchi a day is associated with a lower risk of obesity compared to eating one serving or less or more than five servings daily.**
- **Fermented foods may have positive metabolic effects thanks to the pre-biotic and probiotic nutrients that occur as part of the fermentation process.**
- **While excessive kimchi consumption is not recommended, adding more fermented vegetables to your diet could be one way to promote better metabolic and microbiome health, the researchers said.**

## **Are prebiotic and probiotic supplements necessary?**

For most healthy people, there is no need to take prebiotic or probiotic supplements.

However, the risk of doing so is usually minimal for people who do not have weakened immune systems or underlying illnesses.

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<sup>4</sup> <https://bmjopen.bmj.com/content/14/2/e076650>

Given that probiotic cells can die throughout their shelf life, make sure you purchase a reputable product that guarantees at least 1 billion live cultures — often listed as colony-forming units (CFUs) — on its label. <sup>5</sup>

### **When is the best time to take prebiotic and probiotic supplements?**

You can take prebiotics and probiotics together. What matters is consistency.

### **Final Thoughts:**

The next time you have your health screening done, spare a moment to reflect on your lifestyle habits and discuss with your doctor on ways to improve the above towards a better and healthier you and our planet.

### **‘Towards better health outcomes’**



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<sup>5</sup> <https://ods.od.nih.gov/factsheets/Probiotics-HealthProfessional/>

### About the author:

Dr Chrystal Fong Chern Ying (MBBS Melbourne, FRACGP) is currently practicing as a family physician at Asia HealthPartners under the subsidiary of Singapore Institute of Advanced Medicine (SAM) Holdings, located at Lucky Plaza, Orchard, Singapore.

Dr Chrystal Fong is listed on the editors list of health screening providers on Health365, a healthcare, wellness and aesthetic medicine publishing agency in Asia. She has a special interest in health prevention and incorporates sports psychology and lifestyle medicine principles in her health screening and advocacy in health promotion.

She will be featured in the Britishpedia's upcoming 6<sup>th</sup> edition of 'Successful People in Malaysia and Singapore'.

She is an active sports person who has keen interests in lifestyle medicine, medical technology and longevity themed medical care. She takes personal pride in living the lifestyle medicine pillars herself and advocating through her sports communities and social media platforms.

Her personal mantra being 'The world is changed by your example, not your opinion.'

Being certified in Wellness and Behaviour modification with International Sports Academy, her consultations incorporate health coaching methods.

She is a member of the Singapore College of Family Physicians, Singapore Medical Association, Singapore Society of Behavioral Health, Singaporean Society of Lifestyle Medicine, HIMSS (Healthcare Information and Management Systems Society).



<http://www.asiahealthpartners.com/>