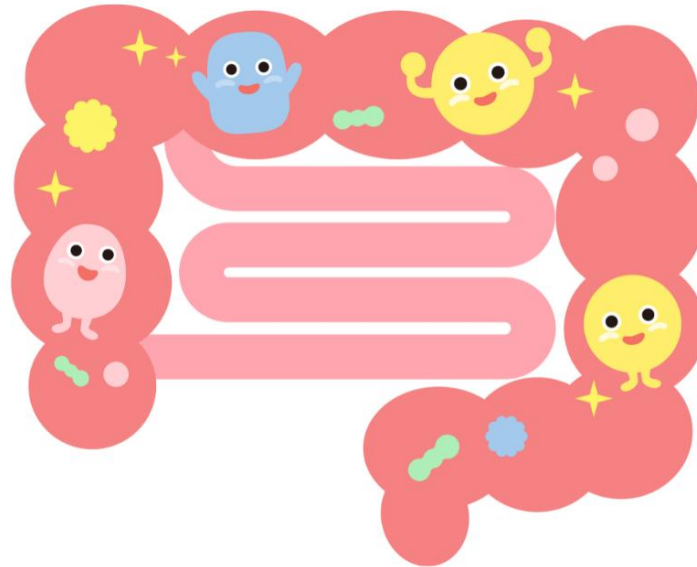


WHY DO SOME PEOPLE GAIN WEIGHT EASILY WHILE OTHERS DON'T?

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Have you ever wondered why some individuals seem to gain weight effortlessly, while others can eat endlessly without gaining a pound? While genetics play a role, other factors such as age, physical activity, muscle mass, and hormonal balance also contribute. However, emerging research suggests that metabolic differences may be more strongly influenced by the diversity of gut bacteria than by genetics alone.

The Role of the Gut Microbiota

The human body is home to trillions of bacteria, fungi, and viruses—outnumbering our own cells—collectively referred to as the microbiota. Among these, bacteria play a crucial role in health, with some being beneficial (friendly bacteria) and others potentially harmful (non-friendly bacteria), depending on what we eat. For example, ultra-processed foods can disrupt beneficial bacteria, allowing harmful bacteria to thrive. (Deehan & Walter, 2016)

Studies have shown that the diversity of gut microbiota differs significantly between obese and lean individuals. In obese individuals, the balance of beneficial microbes is often disrupted, a condition called dysbiosis. (Turnbaugh et al., 2006)

Furthermore, this imbalance appears to be transmissible: experiments have demonstrated that colonizing germ-free mice with an 'obese microbiota' results in a significantly greater increase in total body fat compared to colonization with a 'lean microbiota.' These findings highlight gut microbiota as a critical factor in obesity. (Bäckhed et al., 2004)

The connection between the microbiota and metabolism explains how two people can derive different calorie amounts from the same meal. If a lean person extracts fewer calories from the same meal, it may indicate a microbiota composition richer in beneficial bacteria.

How Can We Support a Healthy Microbiota Balance?

- **Avoid ultra-processed foods:** A Western-style diet high in refined fat and sugar destroys beneficial gut bacteria. (Deehan & Walter, 2016)
- **Increase fiber intake:** Consume foods rich in natural fiber in their unprocessed form. Did you know an organic apple can transfer approximately 100 million bacteria to your body? (Berg et al., 2021)
- **Incorporate fermented foods:** Add fermented options to your diet, such as fermented vegetables, sauerkraut, kefir, kimchi, and kombucha. These foods are rich in probiotics, which help maintain a healthy gut balance. (Unless you have conditions like SIBO, which require caution with fermented foods.)
- **Eat the rainbow:** Each colour of fruit and vegetable provides unique nutrients and acts as a prebiotic, feeding the friendly bacteria in your gut. Even tea varieties, such as green or black tea, can serve as prebiotics. By eating a diverse range of colourful plant-based foods, you help your beneficial gut bacteria thrive—so making your plate vibrant is essential for supporting your tiny gut guests.
- **Manage stress:** Chronic stress negatively impacts gut bacteria balance. (Chung et al., 2020)
- **Engage in regular exercise:** Consistent physical activity promotes a diverse and healthy gut microbiota. (Clarke et al., 2014)

- **Interactions and microbiota diversity:** Human interactions can also influence microbiota diversity. For example, studies show that kissing can transfer millions of microbiota between partners, potentially impacting gut health. (Kort et al., 2014)
- **Prioritize sleep:** Adequate sleep allows the body to reset and supports overall microbiota health. (Benedict et al., 2012)

Gut Microbiota Imbalance, IBS, and SIBO

Disruptions to the gut microbiota balance, known as dysbiosis, can contribute to various health issues, including Small Intestinal Bacterial Overgrowth (SIBO) and Irritable Bowel Syndrome (IBS). IBS is a chronic gastrointestinal disorder characterized by symptoms such as abdominal pain, bloating, diarrhea, and constipation. (Rodiño-Janeiro et al., 2018)

Research suggests that SIBO is frequently observed in individuals with IBS, indicating that bacterial overgrowth in the small intestine may exacerbate IBS symptoms. Medications like proton pump inhibitors (PPIs), which reduce stomach acid, are significant contributors to both conditions as they disrupt digestion and alter gut bacterial balance. (Ghoshal et al., 2022; Quigley & Murray, 2006)

What is SIBO?

Small Intestinal Bacterial Overgrowth (SIBO) occurs when bacteria that are normally present in the large intestine grow excessively in the small intestine. Under normal conditions, the stomach's acidic environment (pH ~2) aids digestion and prevents bacterial overgrowth. However, prolonged use of acid-reducing medications can create a favourable environment for bacterial proliferation in the small intestine.

SIBO can cause symptoms similar to IBS, including excessive gas, bloating, diarrhea, abdominal discomfort, and nutrient malabsorption. While fiber-rich foods are generally considered beneficial, individuals with SIBO may need to temporarily avoid fermented foods like kimchi, sauerkraut, and kefir, as these can worsen symptoms until the condition is managed.

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