

# Friendly Bacteria and The Amazing Gut

How much do you know about your intestines? You will be surprised to learn that, at any one time, you have about one hundred trillion bacteria inside your digestive tract, particularly in your intestines. These trillions of bacteria are made up of about 500 different species, which began settling into your body from the very first day you were born. The weight of these bacteria is about 1.5 to 2kg.

About 85% of these bacteria perform beneficial functions, such as digesting food, protecting against infection and influencing a few physiological processes in the body. The remainder of the bacteria in the body are sometimes referred to as %bad+ bacteria and do not provide any benefits to the body.



At the same time, most of the body's immune system also lives in your digestive tract, home to about 70-80% of immune cells. So any changes that occur in the gut have a strong impact, not only on your digestive health, but also on your **overall health**.

## Good vs Bad. Your Digestive and Immune Systems are Counting on You

The balance of good and bad bacteria in the gut has to be maintained in a fragile balance. This ratio between the "good" bacteria and the other bacteria becomes one of the critical factors determining your optimal health. The ideal balance between them is 85% good, 15% "other". Our environment greatly influences this balance, and a poor diet, stress, medications and an unhealthy lifestyle can disrupt it, causing bad bacteria to flourish.

When that happens, a person is likely to experience digestive health problems, such as bloating, intestinal pains, constipation and diarrhea. Furthermore, these microbes are suspected to play a role in inflammatory bowel disease, including Crohn's disease and ulcerative colitis.

On the other hand, a healthy, balanced environment in the gut can protect the immune system from pathogenic bacteria, toxins, allergens, chemicals and pollutants. For instance, research suggests that a particular strain of bacteria may help to suppress the inflammation caused by inflammatory bowel disease.

## Where have all the good bacteria gone?

The modern world has become fastidious about hygiene, and for good reason. The lessons learnt from the Western industrial revolution in the 18<sup>th</sup>- and 19<sup>th</sup>-century taught us that rapid urbanisation and poor standards of living can lead to disease epidemics.

With the knowledge that microbes like bacteria and viruses are the cause of these diseases, we have filled our lives with antibiotics, antibacterial products, sanitising products and sterilisers. Our food products are also subjected to strict food safety regulations, and often have to undergo processes like pasteurisation and sterilisation. As a result, we are less exposed to bacteria now, but we have also excluded the %good+ strains of bacteria.

## How probiotics can make our GUT happy again?

Of course, this is not to say that we should start living in filth. As much as possible, we should live a healthy lifestyle to avoid the microbial balance in our digestive tract from becoming disrupted.

One way to boost our good bacteria count is by taking probiotics with our food or as supplements. Probiotics are live bacteria that help to re-establish a healthy bacterial balance in the intestines. As more probiotic products appear on the market today, it is important to ensure that you are choosing a product that provides the best benefits.

## Choose wisely. Are your Probiotics getting through?

The first criterion of a good probiotic product is the strain of bacteria used. It should be clinically documented in published clinical studies, safe to be consumed, able to withstand the stomach acids and bile during the digestive process, and able to attach to the intestinal lining.

**L. Acidophilus** and **Bifidobacterium** are two groups of bacteria commonly used in probiotic products, of which a few strains have been scientifically proven to be beneficial. The bacteria must be alive, or viable, gastric acid and bile salt-resistant and have a better survival rate, in order to perform their beneficial functions after they have been consumed.

Probiotics that contain highly stable **microencapsulated** strains with the right stabilization processes during packaging and transportation will protect the bacteria against light, heat, humidity and moisture breakdown.

**Biogrow™ Probiotics** provides a highly stable microencapsulated strains made from patented **microencapsulation** technology from Institute Rosell-Lallemand, Canada that ensures the probiotics are resistant to **heat shock up to 50°C, gastric acid and bile salts** and have **better survival rate**. Remember, only **LIVE** bacteria confer health benefits to its host, not dead ones!

*This article is a courtesy of Summit Company (M) Sdn Bhd  
K.K.L.I.U No. 0965/2012/ABC1*