

# Amazing facts about your stomach



## Your belly is a powerhouse of the body

### What is the Gut?

When you think of “gut,” do you think of your belly or your bowels? Those are both part of your gut, but not all of it. The gut (gastrointestinal or GI tract) is actually the long tube that starts at the mouth and ends at your bottom. The gut processes food, from the moment it enters the mouth where the processing begins, until it is either absorbed by the body or passed out as waste (stools).<sup>1</sup>

Every day, it seems that science is discovering new ways in which the GI tract protects us. Here are just some of the benefits that may be associated with a healthy gut:

- Improves energy levels
- Regulates moods, including stress, anxiety and depression
- Regulates blood sugar (needed to prevent type 2 diabetes and cardiac disease)
- Regulates inflammation
- Regulates appetite (needed to help reduce the likelihood of obesity)
- Helps the production of key vitamins such as K (needed for blood clotting) and B (needed for keeping our nervous system healthy and turning food into energy)
- Improves resistance to acute and chronic diseases (including several types of cancer, gallstones, constipation, pancreatitis, stomach ulcers, coeliac disease, acid reflux, ulcerative colitis, and more)



The more you know about the role that your gut plays in your health, the more we hope you will be motivated to take care of it. Here are just some other amazing facts about the GI tract:

1. The human intestine is ten times longer than the length of the body (about 6 to 8.5 meters).<sup>2</sup>
2. An ecosystem of about 100 trillion microbes lives in our gut.
3. Cell densities in the colon are the highest recorded for any known ecosystem.
4. Diversity is key to gut health. Gut microbiota, also called gut flora or gut microbiome, are the legions of simple creatures — bacteria, fungi, viruses, archaea and protozoa that live in the gut.
5. Laid end to end, our body's bacteria would circle the earth 2.5 times.<sup>2</sup>
6. The GI tract surface is as big as two tennis courts.<sup>2</sup>
7. At least 1,000 unique species of bacteria can be found in the human gut.
8. 95% of the bacteria in and on our bodies are located in the GI tract.<sup>2</sup>
9. Bacteria are 10 to 50 times smaller than human cells.<sup>2</sup>
10. The small intestine has a surface area about ten times greater than the surface of your skin.
11. The composition of our gut microbiota is unique to each person, just like your fingerprints.<sup>2</sup>
12. The Enteric Nervous System (ENS) lining the gut contains over 100 million nerves — more than the human spinal column or central nervous system.
13. The gut is called “the second brain” — and the brain in your head and your gut are constantly communicating back and forth.
14. The ENS produces about 90-95% of a neurotransmitter called serotonin, which is associated with regulating appetite, a sense of well being, and sleep.<sup>6</sup>

1. Institute of Medicine, 'The Human Microbiome, Diet, and Health: Influence of the Microbiome on the Metabolism of Diet and Dietary Components', 2013

2. International Journal of Molecular Sciences, 'Impacts of Gut Bacteria on Human Health and Diseases,' April 2015

3. Gut Microbiota Worldwatch, "Getting to know your gut microbiota," November 2014

4. Center for Genome Sciences, "Extending Our View of Self: the Human Gut Microbiome Initiative (HGMI)," 2005

5. American Society for Microbiology, 'Humans Have Ten Times More Bacteria Than Human Cells: How Do Microbial Communities Affect Human Health?', June 2008

6. FEMS Microbiology Reviews, 'The first 1000 cultured species of the human gastrointestinal', September 2014

7. Austin Flint, "A Text-book of Human Physiology," 1888

8. Trends in Neurosciences, 'Gut-brain axis: how the microbiome influences anxiety and depression', May 2013

9. Harvard Medical School, 'The gut-brain connection', December 2015

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