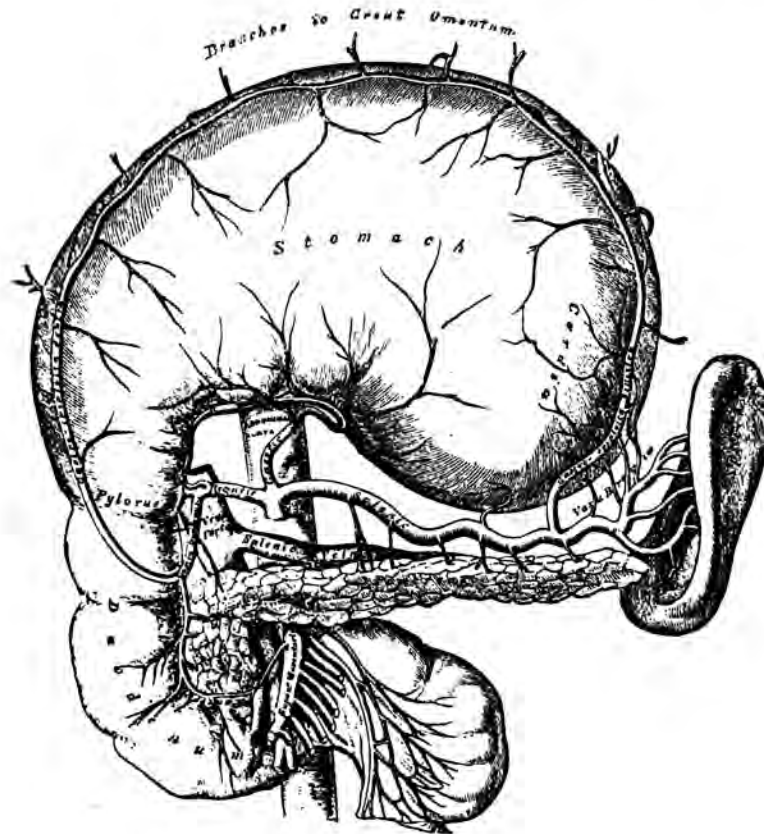


DIGESTIVE WELLNESS

Written by Susan Ward, MS, CCN



The road to optimal health begins with a strong, healthy digestive system and your body's ability to detoxify itself from harmful substances. There is truth in the old saying, "You are what you eat," but it is more accurately said that you are what you digest, absorb, and assimilate. If you are ready to take charge of your health, Sanoviv suggests you begin by taking care of your digestive system and detoxifying your body.

Digestion in a Nutshell

Once you understand the basic, important functions of the digestive system, you will see how important it is to begin here in the quest for better health. The digestive tract is about 30 feet long, beginning with the mouth and end-

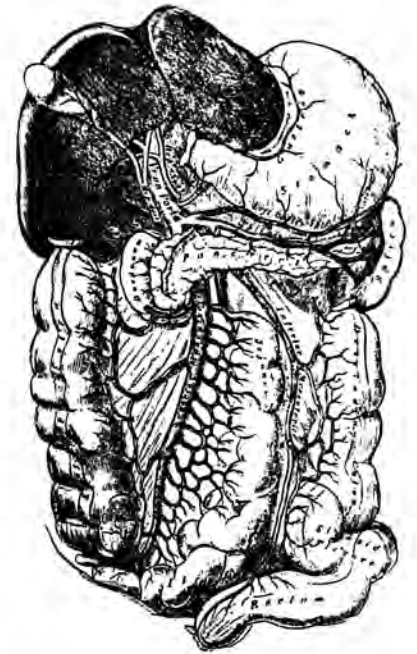
ing with the anus, and is commonly referred to as the "gut." Most people believe digestion begins in the mouth. Actually, it begins in the brain. To illustrate this, take a moment and imagine a lemon that is juicy and ripe. In your mind, take the lemon and squeeze the juice into a glass. Then close your eyes

and imagine what the juice will smell and taste like when you put it in your mouth. You may notice a "puckering" sensation or an increase of saliva, even though we only imagined the lemon juice. The thought of food sends a message to the salivary glands, which secrete saliva into the mouth.

Chew Your Food

The purpose of chewing is to masticate (liquefy) food, the first step in breaking foodstuffs down to the molecular level. Most people put food in their mouths, chew a few times and swallow. But food's contact with saliva is extremely important, because saliva contains enzymes that contribute to the chemical process of digestion by breaking down carbohydrates. Many people are unaware that the first stage of fat digestion also occurs in the mouth with the secretion of an enzyme called lingual lipase. This is why at Sanoviv we also recommend that you "chew" your shakes, green juices, and soups, again allowing adequate time for saliva to mix with the food. Rather than recommending a specific number of times to chew each bite, it is much more personalized for you to get a sense of your own eating and develop a better awareness and relationship with the food you eat. Obtain a baseline of where you are now

tract, and opens into the stomach. The *stomach* serves as a holding and mixing tank for food, churning and liquefying food, and breaking down proteins, preparing them for absorption. The stomach produces hydrochloric acid (HCl), creating an acidic environment, which is critical for destroying potentially harmful microorganisms that may have entered with your food and for assisting in the breakdown of proteins into individual amino acids. The lower part of the stomach contains a sensor mechanism that secretes the hormone gastrin for regulating the level of acid produced in the body of the stomach. Contrary to popular belief, many who suffer from heartburn don't produce enough HCl and have difficulty digesting proteins. The common treatment is to take antacids, which further decreases the necessary acidic environment of the stomach. Then, gastrin starts signaling the stomach to produce more and more acid, resulting in both a rebound output of acid and the discomfort most heartburn sufferers feel. With long-term use of acid blockers, the stomach ceases



tine, allowing more enzymes to continue the breakdown of large food molecules that may still be present. The lining of the small intestine contains small finger-like projec-

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and simply strive to improve your chewing, which will cause you to slow down, making more time for enjoyment—and improved taste—of your meals. Proper chewing is one of the easiest ways to improve your digestion.

The Stomach

After swallowing, the food enters the *esophagus*, which serves as an air lock between the outside world and the digestive

to function normally, resulting in low or no stomach acid creation, thus completely impairing digestion.

Once the food leaves the stomach, it is called chyme and passes into the small intestine.

The *small intestine* is where 90 percent of all your nutrients are absorbed. As the chyme enters the small intestine, it is mixed with potent digestive enzymes from the *pancreas*. The pancreas also secretes bicarbonate to lessen the acidity in the intes-

tions called villi, which serve to increase the surface area and absorption capabilities. These villi must have tight junctions between them to protect unwanted bacteria, viruses, toxins, and other organisms from entering into the bloodstream. Think about a tiled shower with grout in between the tiles. If the grout were cracked, then water would get into the cracks and possibly create mold behind the wall. Damages to the villi can cause intestinal permeability, otherwise known as "leaky gut."

LEAKY GUT IS THE ROOT CAUSE OF MANY CHRONIC HEALTH CONDITIONS

—INCLUDING FOOD ALLERGIES AND AUTOIMMUNE DISEASE

Leaky Gut

Leaky gut is the root cause of many chronic health conditions—including food allergies and autoimmune disease—as it allows unwanted organisms and larger antigenic moieties into the bloodstream. This causes the immune system to “react” to these foreign invaders, as it assumes these particles are dangerous and creates antibodies against them. This can also lead to a situation where different foods set off an immune reaction every time they are eaten. These antibodies may also attack cells in the body that are structurally similar to the unwanted antigens.

Autoimmune diseases include psoriasis, eczema, fibromyalgia, chronic fatigue syndrome, lupus, Crohn’s and inflammatory bowel disease, Hashimoto’s thyroiditis, diabetes type 1, rheumatoid arthritis, scleroderma, autoimmune hepatitis, ankylosing spondylitis, pernicious anemia, Sjögren’s syndrome, and multiple sclerosis. To prevent and manage these conditions, it is important to fix the gut. Sanoviv uses the 4-R Approach used in functional medicine as a first line of therapy:

- 1) *Remove the potential causes of the leaky gut or damage to the intestinal lining. Such things include a long list: alcohol, caffeine, parasites, bacteria, chemical food additives, inadequate chewing, excessive fluid*

with meals, enzyme deficiencies, refined carbohydrates, processed food, prescription hormones such as birth control pills, medications, fungus or mold, mercury amalgams and other dental toxics, gluten (a protein found in wheat and other grains), and stress.

- 2) *Replace all the enzymes necessary for the digestion of proteins, carbohydrates, and fats, including protease, cellulase, and lipase, strengthening the system and improving overall digestive function.*
- 3) *Reinoculate with probiotics or friendly bacteria such as Lactobacillus and Bifidobacterium to help restore the proper bacterial balance in the gut. Bifidobacteria should predominate in the small intestine while Lactobacilli should be the predominant species in the colon.*
- 4) *Repair the intestinal lining to prevent further damage. Fortunately, if the offending substances are removed and other nutrients are added, new intestinal cells can emerge, tightening the junctions and repairing the leaky gut condition.*

Why is the Gut so Important?

The gastrointestinal tract is technically outside the body. Similar to the way the skin protects the body from the

external environment, so too does the lining of the intestinal tract, providing a barrier to everything that is ingested.

Because of a constant exposure to dietary antigens and microorganisms, the gastrointestinal tract maintains a steady local immune response, such that a continuous low-grade inflammation is a characteristic of the gut. In fact, approximately 70 percent of the body’s immune system is located in the lining of the gastrointestinal tract. When the gut is in trouble, it is likely the immune system is as well.

Our bodies have a “second brain” called the enteric nervous system. The fact is that half of the body’s nerve cells are located in the gut and about 95 percent of the brain neurotransmitter serotonin is produced in the gut. This is the reason chronic stress and our emotions play a central role in many physical disorders. Knowing this helps us to understand how digestive disorders and depression are intimately related. There should be no question about it; the gut is the foundation of good health.

The Large Intestine (aka the Colon)

The large intestine is the last organ through which food passes, and its job is to absorb water and nutrients that were not absorbed in the small intestine and to form feces from the waste.

The *large intestine* is about five feet long, including its final segments, the *colon* and the *rectum*. Food at this point is primarily insoluble fiber, and generally will spend more time in your large intestine than anywhere else during digestion. One reason for this may be that bacteria in the colon are capable of generating nutrients from waste. These "good bacteria" (known as probiotics or flora) not only help with the absorption of food and the synthesis of short-chain fatty acids, they also promote the production of certain classes of antibodies that aid in the destruction of competing, or potentially disease-causing, bacteria. As adults, our digestive systems contain more than 100 trillion bacteria, fungi, and other microbes; more numerous than all the cells in your body.

In a healthy digestive system, there is a ratio of 80–85 percent 'good' bacteria and 15–20 percent 'bad' or disease-

causing bacteria. This ratio is reversed in many people today. Things that can contribute to this imbalance are:

- *Drugs*
(*antibiotics, anti-inflammatories, laxatives, antacids, birth control pills*)
- *Refined carbohydrates*
- *Processed food*
- *Lack of eating fermented foods*
- *Lack of fiber*
- *Alcohol*
- *Caffeine*
- *Overeating*
- *Inadequate chewing*
- *Environmental toxins*
- *Stress*

Signs of good digestion and elimination include good bowel movements daily (preferably two or three), forming stool that is free from odor, walnut brown in color with a consistency similar to toothpaste, and about the length

of a banana. The stool should leave the body easily, settle into the toilet and gently submerge. The time it takes for a meal to enter the mouth and then exit the rectum, known as "transit time," should ideally be between 12 to 18 hours. Transit time is related to exercise, water consumption, and especially the fiber content of your diet. Poor transit time can lead to the re-absorption of toxins, including bacteria, nitrates, and other cancer-causing toxins, which can then enter the bloodstream.

It is of key medical importance for health practitioners to ask many questions about your stool. This is how we know what is going on in your body, as this system must be functioning well for you to be healthy. It is very common to be talking "poop" at Sanoviv, not only with your doctors, but also with other guests! It's a fascinating health subject. ■

(This article was originally published in the USANA Health Sciences magazine (Volume 1 2011) and has been reprinted with permission from Sanoviv Medical Institute.)

Please ask me about "Sanoviv Inspired" Digestion & Detox products.

– Jan Mills