Digestive Wellness and Detoxification

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The road to optimal health begins with a strong, healthy digestive system and your body's ability to detoxify itself from harmful substances. It is well known that true health comes from the body's ability to digest foods completely and eliminate wastes naturally. When your body performs these basic digestive functions efficiently, it is likely that you are in good health. Though there is truth in the old saying, "You are what you eat," it is more accurately said that you are what you digest (break down), absorb (take into the bloodstream) and assimilate (take into the cells). 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.

The digestive tract is about **30 feet long**, beginning with the mouth and ending with the anus and is commonly referred to as the "gut."

Digestion actually **begins in the brain**. The thought of food sends a message to the salivary glands, which secrete saliva into the mouth.

CHEW YOUR FOOD! The mouth is an important part of digestion because this is where food is chewed, breaking large food particles into smaller ones, so that the body will have an easier time assimilating the nutrients. Chewing food is important but often overlooked as most people put food in their mouths, chew a few times and swallow. However the adequate chewing allows for the food to be in contact longer with the saliva, coating the food to ensure smooth swallowing and passage into the esophagus. Food's contact with saliva is also important because saliva contains enzymes that contribute to the chemical process of digestion by breaking down sugars and starches. 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 and simply strive to improve your chewing, which will cause you to slow down making more time for enjoyment of and improved taste of your meals. Be sure to remember that chewing your food is one of the easiest ways to improve your digestion.

After swallowing, the food leaves your mouth and enters the **esophagus**, which serves as an air lock between the outside world and the digestive 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 toxic microorganisms, parasites and bacteria that may have entered your system through your mouth and assisting with the breakdown of proteins. 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, so then gastrin starts signaling the stomach to produce more and more acid, resulting in a rebound output of acid, which is the discomfort most heartburn sufferers feel. Eventually, with long-term use of acid blockers, the stomach ceased to function normally, resulting in low or no stomach acid thus completely impairing digestion. Once the food leaves the stomach, it is called chyme and passes into the small intestine. *High alkaline water may also affect the acidity of the stomach and impair digestion.*

THE SMALL INTESTINE is where 90% of all your nutrients are absorbed. As the chyme enters the small intestine, it is mixed with potent digestive enzymes from the pancreas and bicarbonate to lessen the acidity, thus allowing more enzymes to function continuing the breakdown of large food molecules that may still be present. The lining of the small intestine contains small finger-like projections 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. This is similar to the intestinal lining. 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/sensitivities and autoimmune diseases.

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, AnkylosingSpondylitis, Pernicious Anemia, Sjogren'sSyndrome and Multiple Sclerosis.

So to prevent and mange these conditions, it is important to fix the gut. Sanoviv uses the 4R 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, prescriptive hormones such as birth control pills, medications, mold or fungus, mercury amalgams and other dental toxins, gluten (a protein found in wheat and other grains) and stress.

2) **Replace** all the enzymes necessary for the digestion of protein, carbohydrates, and fats (protease, cellulose, lipase and lactase), strengthening the system and improving overall digestive function. Hydrochloric acid (HCL) may also need to be replaced in some individuals.

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 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. It is basically a long tube with one opening at the mouth and another at the anus. Similar to the way the skin protects the body from the external environment, so too does the lining of the intestinal tract, with respect to everything that is ingested. Approximately **70% 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 mucosal lining of the gut and about 95% the brain neurotransmitter serotonin is produced in the gut. This is the reason why 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 is no question about it; the foundation of good health begins in the gut.

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% 'good' bacteria and 15-20% 'bad' or disease-causing bacteria. This ratio is reversed in many people today. There are many things that can contribute to this imbalance:

- 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

Keep in mind, the overuse of antibiotics (from medications, commercial meats and dairy) continually disrupts the ratio of bacteria in our intestinal tract.

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. Stools that float contain undigested fats. 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 and 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.

DETOXIFICATION

The body has its own natural detoxification system, which occurs primarily in the liver. Detoxification is the process by which the liver filters and removes harmful substances (toxins) from the body. There are two types of toxins that the liver must process:

- **Internal toxins** or those created from normal metabolism (digestion, hormones, energy production) – we create these internally.
- **External toxins** are those we take in from the outside world (pollution, heavy metals, chemicals, processed foods)

All toxins need to be processed and eliminated by the body. The liver has two main phases of detoxification to accomplish this:

Phase I – Toxins (environmental chemicals, drugs, metabolic by-products) enter the body and activate certain enzymes (CYP450) to breakdown fat-soluble toxins into active intermediaries. The enzymes need to transform the toxin into a less toxic form, make it water-soluble (so kidneys can excrete it) and convert it to a more chemically active form.

Phase II – The intermediary subunits are converted a second time and turned into safe, water-soluble substances for a safe exit through urine or feces. This is called "conjugation" since they are packaged with **amino acids** and mineral compounds. **This process requires many nutrients!**

Once the toxins have been processed, there are five main ways in which our bodies excrete the toxins:

- ✓ **Sweat** (skin)
- ✓ **Tears** (lymphatic)
- ✓ **Urine** (kidneys)
- ✓ **Feces** (large intestine)
- ✓ **Breath** (lungs)

For optimal health, it is important to lower you overall toxic burden. Begin by becoming more aware of toxins in your everyday world:

- ✓ Air Pollution (in/out)
- ✓ Medications
- ✓ Carpets, Furniture
- ✓ Household Cleaners
- ✓ Laundry detergents
- ✓ Fabric Dryer Sheets
- ✓ Cosmetics/Nail Polish
- ✓ Lotions/Deodorants
- ✓ Hair Products
- ✓ Feminine Hygiene
- ✓ Dry-cleaned Clothes
- ✓ Processed foods
- ✓ Plastics (BPA)
- ✓ Bug-killers/pesticides
- ✓ Electromagnetic radiation (cell phones, Wi-fi, electrical)
- ✓ Microwave Radiation
- ✓ Teflon (in microwave popcorn)
- ✓ Lawn & Garden Products
- ✓ Paints, Dyes, Inks, Tattoos
- ✓ Bedding, Clothing
- ✓ Artificial Sweeteners
- ✓ Water (fluoride, chlorine, metals)
- ✓ Mold

For detoxification, there are many traditional methods available:

- ✓ Infrared Sauna
- ✓ Fasting (Sanoviv UltraCleanse or Elimination Diets)
- ✓ Dietary Cleanse/Supplements
- ✓ Massage (lymphatic)
- ✓ Exercise
- ✓ Rebounding
- ✓ Chi Machine
- ✓ Dry skin brushing
- ✓ Enemas/Colon Hydrotherapy
- ✓ EARTHING (walk barefoot on grass) – very important for neutralizing toxions from electromagnetic fields/electropollution