



Healthy Digestion

Our Digestive System

Proper digestion, absorption of nutrients, and elimination of wastes are essential requirements for optimal health. The gastrointestinal tract, which regulates all of these functions, is considered to be the “seat of health.” The goal of many nutritional approaches is to maximize the health of this important system.

The gastrointestinal tract begins at the mouth and ends at the rectum. It includes the mouth, esophagus, stomach, small intestine, and large intestine. The liver, pancreas, and gallbladder also play important roles in digestion.

What Goes in Must Come Out

We all know that what goes in at the top comes out in a different form at the bottom. However, what happens in between? And why is it important that all the different components of the digestive system work properly?

Where Does It Start?

The process starts in the brain when you begin to think of food, then becomes more potent when that first delicious aroma of your favorite food hits your nostrils. Powerful chemical messages are set in motion to get you ready to digest and assimilate food. Now, as soon as the food hits your mouth, when you actually begin to taste and eat the food, enzymes, such as amylase, are produced to help you begin the process of digestion.

Chew your food well. This is particularly important, as chewing activates the enzymes and prepares your stomach for producing gastric juices, such as pepsin and hydrochloric acid, to break down proteins.

Churn Your Stomach

As the food is passed into the stomach, it is mixed with hydrochloric acid and pepsin. Far from being a bad thing, stomach acid is crucial for proper digestion. This is why using antacids for prolonged periods of time, which inhibit hydrochloric acid production, can be detrimental to our health.

Hydrochloric acid not only assists in protein digestion, but also helps to prevent bacterial and fungal overgrowth of the small intestine. In addition, it stimulates the production of digestive enzymes, stimulates peristalsis, and facilitates the absorption of minerals. As we age, we produce less and less hydrochloric acid and pepsin.

Many times when you suffer acid indigestion, it is not because you have too much acid. It is more than likely that you are low on stomach acid. This leaves undigested food in the stomach, which can cause a resurgence of acid. Taking “antacids” may help for the time being, but they not only suppress the production of hydrochloric acid, but also the production of digestive enzymes as well.

Some of the symptoms of not having enough hydrochloric acid are:

- Acid indigestion
- Foul breath
- Asthma
- Fullness with meals
- Belching
- No taste for meat
- Gas and bloating
- Mouth sores
- Feeling of fullness up to 2 hours after meals
- Stomach aches

Here are some ways you can increase hydrochloric acid:

- Apple cider vinegar (½ tsp in water before meals)
- Hydrochloric acid capsules or tablets, such as HCL-ProZyme™ (Z26); ask your healthcare professional
- Herbal bitters (1 tsp before each meal)
- Don't drink liquids at meals or just drink small sips of water.
- Relax at meal times (stress shuts down digestion).

It Takes Guts

Once your stomach has churned all that food into a liquid soup called *chyme*, it is passed to the next phase of the processing machine, your small intestine—which is anything but small. The surface area, if it is unfolded, covers the size of a tennis court. Your food is fully digested and absorbed here.

Once your food enters the small intestine, the pancreas is activated to send in the digestive enzymes to break down carbohydrates, proteins, and fats and to neutralize stomach acid. If you are low on enzymes or biocarboxylates, your pancreas does not have enough available minerals, then you may have symptoms such as gas, bloating, and/or pain in the middle part of the abdomen.

Here are some ideas for increasing enzymes:

- Eat whole, fresh, organic foods
- Take digestive enzymes: protease, amylase, lipase
- Eat fermented foods: yogurt, cabbage juice, pickled cabbage, or ginger
- Eat only one type of protein at a meal

How Is Your Liver Doing?

Your liver has the hardest job of all. It helps to emulsify fats and breaks down hormones, including cholesterol. It also helps to break down synthetic chemicals, such as food additives and pesticides, so that the body can excrete them. The liver makes cholesterol and distributes fat-soluble vitamins, such as A, D, E, and K, to the tissues.

The liver produces bile, which is stored in the gallbladder. Bile contains bile salts to emulsify and break down fats, making them easier to digest. As we eat, the gallbladder and liver release bile into the duct that connects the liver, gallbladder, and pancreas to the small intestine.

If you have had your gallbladder removed, the bile and bile salts have to be secreted into the small intestine where there is no repository for storing bile. Thus, digestion may be problematic. Taking some ox bile or other liver nutrients may be needed to support digestion of fats. An easy way to help your gallbladder emulsify fat is to eat egg yolks and honey.

You should keep your liver in tip-top shape, or you will overproduce cholesterol, have problems digesting fat, be unable to break down excess hormones, and be inefficient at breaking down chemicals. If these substances are not broken down and excreted, they will recirculate and begin to poison your cells. If you have experienced brain fog, then you know what it is like to have toxins recirculate in your body. Drinking alcohol also makes your liver work harder than it should.

Some of the symptoms* you might experience if you become toxic from a sluggish liver are:

- Aching all over
- Feeling sleepy throughout the day
- Allergies
- Lack of concentration
- Dizziness

Some good tonics are:

- Beets
- Dandelion root
- Broccoli
- Globe artichoke
- Burdock root
- Lemon juice
- Cabbage
- Milk thistle

*Symptoms may result from conditions other than toxic exposure, which may require appropriate conventional medical management and drug administration by a physician. Where symptoms are more frequent or severe, seek appropriate medical management.

A Healthy Bowel

The last bit of digestion happens when whatever is left of your food—mainly water, bacteria, and fiber—enters the large intestine. About 2.5 gallons of water pass through the large intestine daily, two-thirds from body fluids alone. The large intestine, or colon, is where your friendly bacteria live. These bacteria help produce enzymes, manufacture B vitamins, keep us resistant to food poisoning, and keep bad microbes from taking up residence in our gastrointestinal tract. It is really important to have a healthy amount of good bacteria populating the colon.

You can keep the good bacteria happy and proliferating by consuming fermented foods, such as yogurt, cottage cheese, sauerkraut, miso, natto (fermented soy), and fiber. The yogurt should contain live organisms and not contain extra sugar or starch. Taking probiotic supplements (*Lactobacillus*, *Bifidus*, etc) is also a way to increase these friendly bacteria in your gut. Each probiotic capsule may contain the equivalent of 15 small tubs of yogurt.

Constipation and diarrhea are two health issues that you may experience if the colon is not working efficiently. Constipation may occur if there isn't enough water in the bowel. This may happen when digestion is slowed down, when you do not consume enough fiber, or if peristalsis is sluggish. Diarrhea can occur if there is too much water in the bowel. This may happen when food is not digested well. It will move through the digestive system too quickly without using up enough water during the digestive process. A low-fiber diet can create either bowel issue. Consult with your healthcare professional to address this concern.

Here are some additional ways you can improve bowel health:

- Increase fiber by eating more fruits and vegetables.
- Take fiber supplements or powders. Do not take psyllium fiber long-term, as it is very harsh on the bowel. Consume oat bran, rice bran, apple pectin, prunes.
- If you have constipation, take extra magnesium. This will increase smooth muscle relaxation, which improves peristalsis. Magnesium also rehydrates the bowel. You will know if you have taken too much magnesium, as your bowels will become loose or runny. Take only as much as you need to have two "good" bowel movements per day.
- Don't strain when going to the bathroom. You have a greater chance of developing hemorrhoids and of weakening the sphincter muscles, which assist in peristalsis.
- Control your levels of stress, as the stress response will shut down digestion.

Leaky Gut

This is quite a common condition, characterized by an erosion of the gut membrane that keeps out unwanted foods and pathogens. When this protective layer becomes damaged, it becomes more porous and allows undigested particles of foods, bacteria, fungus, parasites, and other pathogens to move through the porous membranes and into the bloodstream. Once there, the immune system goes

on attack and causes constant inflammation and increased immune system activity. It can also cause malabsorption and a depletion of nutrients.

If left untreated for some time, other health issues may occur, such as irritable bowel syndrome (IBS) and allergies.³⁰ If you are having issues that resemble leaky gut, you should visit your physician for proper diagnosis and treatment.

Some of the things that cause a leaky gut are:

- Alcohol
- Antibiotics
- Chemotherapy and radiation
- Sodas
- Eating too many refined foods
- Standard American diet (SAD)
- Infections
- Sugar
- NSAIDs (acetaminophen, aspirin, etc)
- Unresolved food intolerances
- Prolonged states of stress
- Vaccinations

Food Intolerances

Having a leaky gut can lead to food intolerances. The immune system begins to think of foods as the enemy. Commonly eaten foods, such as gluten found in grains (wheat, oats, rye, barley, spelt, kamut) as well as milk products are common allergens. When you have sensitivities to foods, you will also experience a host of symptoms that could create more serious health issues.

Food reactions can occur immediately or up to 72 hours after ingestion. If you suspect that foods are causing any problems, then try an elimination diet. Eat only vegetables, fruits, and light protein for at least 3 weeks and then introduce food groups one at a time every 4 days and notice any symptoms—gas, bloating, brain fog, aches, skin rashes, etc.

To repair the lining of the gut demands a change of diet and lifestyle. As noted above, first visit your physician to obtain the proper diagnosis and treatment. Reducing stress and eating a wholesome diet go a long way toward supporting the health of the gastrointestinal tract. Eating slowly and in a calm setting can support digestion, as can drinking herbal teas, such as slippery elm and marshmallow root.