

## SECTION 2

### DIGESTIVE / INTESTINAL

Teeth / Saliva / Stomach / Small Intestine / Pancreas / Large Intestine / Skin

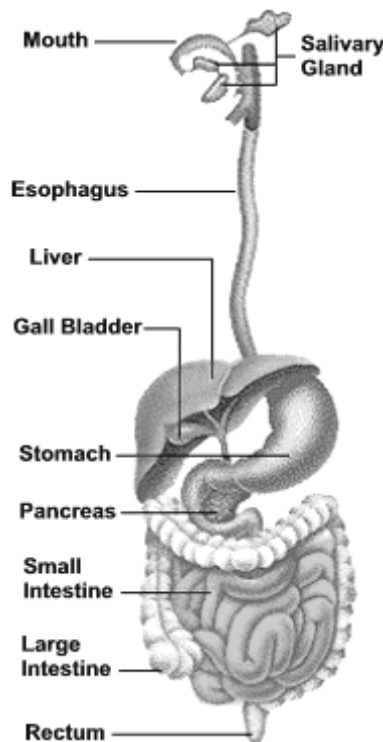
#### Chapter 1

##### Digestion

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The previous section indicated the cellular function of the body as the most important aspect of health because if cells are not healthy, nothing else will be healthy. But in reality, the digestive system is the most important aspect of health because the basis of all health is dependent on how well we digest and assimilate the foods we are eating. If you are not digesting foods, you will not assimilate nutrients needed to make the cells healthy, the elimination of the body will become congested, the blood will become unhealthy and the tissues will accumulate toxins. You can eat the best foods in the world, but if you cannot break them down into digestible elements, the body will not benefit. Without the needed nutrition, cells become diseased and die. So while it is good to understand that cells are of utmost importance, a healthy program begins with digestion.

Digestion is the mechanical and chemical breakdown of foods into forms that cell membranes can absorb. Mechanical digestion breaks large pieces into smaller ones without altering their chemical composition. Chemical digestion breaks food into simpler chemicals.



#### THE HAND'S INVOLVEMENT IN DIGESTION

One of the first stages in digestion is the role the hands play in bringing the food to your mouth. How was food intended to get to your mouth? Forks and spoons are part of the new civilized world, but how was it created to be in the beginning? Were we not made with hands to bring the food to our mouths? A dipper or bowl of sorts was used to get soup and liquids to the mouth, but fruits, vegetables, nuts, seeds and even meats had no way of getting to the mouth unless the hands were used to get it there. The hands are one of the four most electrical parts of the human body. The first is the brain, the second is the groin, the third is the tongue and the fourth is the hands. It is no mistake that the hands were to be used to deliver food to the mouth because the electricity emitting from the hands actually charge the particles in the food. Each one of us has a slight variation in our electromagnetic field and food particles will digest much easier if the elements in it are converted to your particular field pattern before it enters the mouth. This process can be so powerful that the bacteria that cause food poisoning can be neutralized before it enters the mouth. The hands don't kill it as much as they change the spin of the cells so that the body recognizes it, sets up a

defense against it and eliminates it as quickly as possible. It is interesting that God put Gideon's men through a final test that included putting water in their hands before it went in the mouth (Bible story).

Don't worry; I am not going to say that if you want to be healthy you will begin eating with your hands. I realize we must live in the world without appearing like cavemen. Really now, in Book 01 I took away most of your junk foods so I won't take your silverware as well. There is a way to get the positive effect that eating with your hands would have provided your foods without actually touching your food. As food sits on your plate or in your bowl, you can place your hands on the side of the plate almost as if you were warming your hands around the warm food. The hands should be held comfortably, not stiff or rigid. If you were to pretend there was a large bowl placed upside down to cover your plate, and then you placed your hands on the bowl in the same contour of the bowl shape, you are about right. With your hands around the food, your cup of juice, or any item you intend to place in your mouth, you are creating an electromagnetic sphere that will literally charge the particles in the food and make them more acceptable. It can actually change a candy bar into an almost neutral item rather than the toxic, chemical filled junk food that it is. Again, it is not making the food item good for you, but it changes the rotation of the electron so that the item is in harmony with the cells of your body and your intestines can do what it must with it much easier. I know it sounds odd, but I had to tell you about it. After all, if I don't tell you, who will? And best of all, you don't have to believe it for it to be true. Just do it.

This hand neutralizing technique should be used on anything you plan to ingest. Most people think about this when they are going out to eat and don't really know what they are getting, or want to eat some food that isn't healthy. Book 01 and 04 indicate that the bottom line in anything that enters the body is the energy in the item. The nutritional content is irrelevant if the current that drives the molecules of that nutrient are not present. Unless you know a method of kinesiological self testing, there is no way to determine whether the current is in that food item or not. If you do self testing, proof of positive current is that the item will test very well. The hand neutralizing technique should be used with anything and everything you plan to put in your mouth. If it was going to be bad for you, it reduces the effects and gives your body a head start in producing the antibodies that will be needed to ward off the junk. If it is deficient in electron movement, it will give it a boost. If it is wonderful to begin with, it can only enhance that even more. You can't lose by incorporating this little trick into your daily eating routines. It can be done inconspicuously and takes about 30 seconds in most cases. You don't need to concentrate, hum, chant or anything else crazy, just talk with your friends or family as you normally would and people probably won't even notice.

## **CHEWING**

Once food actually enters the mouth, by whatever means, chewing begins. There are several aspects of digestion that occur in the mouth. The first aspect of digestion is mastication, or chewing. I should say that chewing should begin because many people do not chew their food. Somehow people have acquired the concept that as long as food is chewed into pieces small enough to swallow without choking that is sufficient. In reality, chewing is a process that breaks the particles into their smallest form while mixing those pieces with saliva. I have watched people eat rice as though it were pudding (swallow it without chewing) and I have seen a person actually chew liquid, but a medium between these is a good place. People have tried to place numbers on the amount of times you should chew each bite and it amounts to about forty chews for a bite that includes meat and works its way down. What you swallow should be more of a liquid pulp than a wad of food. Because so many have become accustomed to swallowing without chewing, it may not be enough to say the food needs to be a liquid pulp. Begin counting to see just where you are on that scale. This habit is pretty hard to break for some folks. I have noticed that most people with weakness of the stomach or people who are over weight do not chew their food enough. Chew, chew and chew. You cannot chew too much.

## SECTION 2

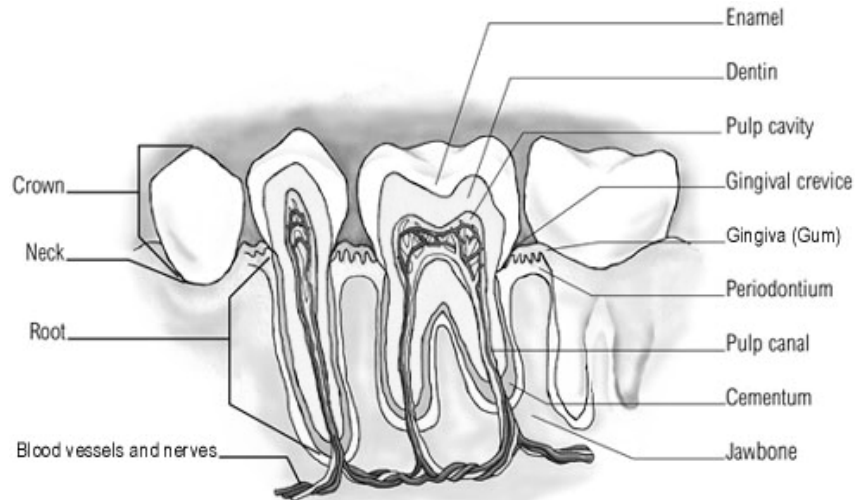
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#### Chapter 2

##### Teeth

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Chewing is considered mechanical digestion. The teeth are classified into two parts, the crown and the root. The crown is made of hard *enamel* on the surface. It is made primarily of calcium salts and is the hardest substance in the body. If the enamel becomes weakened, the intestinal acidity is not balanced. *Dentin* is a substance below the enamel. It is like bone, but harder. The bulk of the tooth is composed of dentin. Dentin surrounds and protects the *pulp cavity* which contains blood vessels, nerves and connective tissue (pulp). The blood vessels reach the pulp cavity through vessels called *root canals*. The neck of the tooth is where the crown and the root meet. This area is covered by the *gingiva* (gums). Teeth are most often lost because of unhealthy gingiva or infection in the pulp (endodontitis). The root is enclosed by a thin layer of bonelike material called *cementum*, which is surrounded by the *periodontal ligament*. This lines the *alveolar process* or the bone socket in the jaw. The ligament is made of thick collagenous fibers which firmly attach the tooth in the socket. When a tooth is pulled, most dentists do not remove the ligament and this is where the majority of the bacteria live. If the area is not cleaned properly, a cavitation will result. This is infection in the socket of the tooth and is rarely seen with x-ray.

#### CAUSE AND PREVENTION OF CAVITIES

Cavities are caused by bacteria commonly named *Actinomyces*, *Streptococcus mutans* and *Lactobacillus*. These bacteria cling to teeth and feed on sugar. Any refined form of carbohydrate will feed the growth cycle of the bacteria. The acidity of this process is the final element that creates a cavity. The main reason for brushing teeth is to remove the food particles that might feed any bacteria. There are a variety of mouth wash solutions, but people wouldn't use them if they did not taste nice, so they add some form of sugar to them. It seems contradictory now that you know how important sugar is to the cavity process, but sales are the final agenda. It is best to avoid putting anything in the mouth that contains sugar. If you can avoid sugar, bacteria will have nothing to feed on and acid will not be created, which means the teeth are safe. While it has become common to coat the teeth with a sealant which is supposed to prevent the acids from reaching the enamel of the teeth and make the surface of the tooth less prone to the clinging bacteria, this 'sealing' process can be very negative to the long term health of teeth. While the logic of sealing teeth may sound like a good idea, did you ever wonder what the pores and ridges on the teeth were for? God designed the body perfectly. Wouldn't it seem reasonable that if the teeth were designed that way they had a function that should be maintained? To seal the teeth, to seal the pores will have a consequence. Not today, or even in a year perhaps, but to stop a natural reaction in the body is asking for a consequence. I have never discovered the designed function of the pores in teeth, but since I believe the Creator knew what He was doing, I must trust there is a function that should not be tampered with no matter how logical it may seem to alter it. The best prevention is to reduce the sugar intake, which includes all refined carbohydrates, or all foods that give you a dirty feeling on your teeth. God did not make tooth brushes, so if they were not part of the original design, I guess

we weren't supposed to need them. The intended diet for humanity would not require the teeth to be brushed as there would be no offensive elements in the diet items.

### **BRUSHING TEETH**

Because we do not have good sources for foods that are high quality and our digestive system is weakened already, we are forced to brush our teeth, so don't think I discourage it. But what are you putting on your tooth brush? Toothpaste with fluoride and sugar? Don't trust what the average dentist tells you about toothpaste. They were taught by the people who produce the tooth paste. You already know better with the sugar. We will talk about the fluoride shortly. The best thing to brush the teeth with is a substance that is alkaline and will leave the mouth alkaline. You can purchase pH strips at the drug store and see what the saliva pH is right after you brush your teeth. This will give you an indication of what you are doing. You want something that is alkaline, at least 7.0 or higher. Plain soap is generally the way to go. Wet your toothbrush; rub it along a bar of soap and brush. It's punishment when your parent puts soap in your mouth, but if you want to avoid the dental visits, you will do this happily. Baking soda works well for some, but it opens the pores too much for others making the teeth over sensitive to hot and cold items. A soft toothbrush worked in a circular motion over the teeth is a healthy way to brush teeth.

### **BRACES**

The use of braces on teeth have very little health benefits, but most people feel more confident with a smile that shows nice even teeth. That decision is up to you. The research done by Bernard Jensen indicated that sugar was the main component to causing crooked teeth. He would go to civilizations where teeth would be perfect and within one generation of introducing foods with refined sugars, the teeth would become crooked. Not genetic, just poor diet habits. If you have the option of getting braces without metal, that is best. You will shortly learn that each tooth discharges a minor electric current. To connect each tooth with a metal strip creates a minor short circuit. Braces are temporary, so the damage is minimal if noticeable at all, but plastic is a better way to go.

### **CLEANING AND CAVITY REPAIR**

Invariably, you will have some trouble that will require a dentist. Most people have been told that a six-month cleaning is good care of the teeth. At that point, the teeth are cleaned, x-rays may be taken, fluoride is applied and a plan to correct any problems is made. The fluoride issue would take some time to get into, which isn't an anatomical issue, so let me just say that in terms of health, it is not a good idea to get fluoride on the teeth. Get on the internet and check out some of the information if you need more information on this. A good start can be found at [http://www.mercola.com/article/links/fluoride\\_links.htm](http://www.mercola.com/article/links/fluoride_links.htm) How often you choose to get your teeth cleaned is up to you. If you don't get the fluoride and don't get x-rays too often, there isn't much harm in it, other than the stress of going to the dentist. Maybe that's just me.

I would love to give you a natural approach to cavity repair, but I just don't have one. I have heard of various things here and there, but have not seen them work consistently, so I don't feel confident in passing them on. A cavity means your body became either deficient in a required mineral or unable to use the mineral for the task of maintaining health in the teeth. If you don't get the cavity filled, it gets deeper and deeper and simply causes more trouble down the line. Fill a cavity as soon as you can. The best material at the time this book was written is composite. Never get those silver fillings which have mercury in them. That is a widely known hazard that I shouldn't even have to get into in this book. Most dental work requires an injection into the gums to numb the nerve. If you can do without it, wonderful. I can't, but I know several people who do. If you must get the Novocain, take some Vitamin B5 (Pantothenic Acid) for five to ten days after your work has been done to help the body eliminate the toxins of the Novocain. Drink plenty of water as well.

### **EXTENSIVE TOOTH REPAIR**

If your dentist recommends a root canal, you should consider very carefully. A dentist by the name of Westin Price did much of the initial research on the long term hazards of root canals, but George Meinig, D.D.S., now carries the torch in his book, *"Root Canal Cover-Up Exposed, Many Illnesses"*. Result: Basically, there is no way to properly clean the millions of pores that harbor bacteria in the root of an infected tooth. A root canal means the blood vessels and the nerve endings to the tooth are removed, essentially making it a dead tooth. The bacteria are free to multiply and reproduce and leech into the body. Because the blood supply to the tooth is now gone, there is absolutely nothing your body can do to fight the slow leeching infection. It is estimated that up to eighty percent of heart attacks are the result of old root canals. Westin Price would take old root canals out of people and surgically implant them under the skin of animals and the animals would develop the same diseases the previous owner of the root canal had within a week of the implant! It is generally better to remove a tooth than it is to get a root canal. Read the book before making your decision, but keep in mind that the guy who wrote this book used to be the president of the endodontist society (those are the dentists that do root canals). He now speaks out against them.

If a tooth is missing, you have options like implants and bridges. Most of this dental work is not functional as much as cosmetic and propaganda. The first consideration is that a gap cannot be left in the mouth because the teeth will shift. That isn't always true. If you are a healthy person, the teeth will not shift. And if they do, it doesn't hurt anything. At this point you need to look at what damage you might be causing your body and what the reasons are. If it is purely for cosmetic reasons, well, you do what you must do. If I had to pick a bridge over an implant, I would go with a bridge, but only if the teeth the bridge attaches to are already filled. In order to attach a bridge to a tooth, the entire outside of that tooth must be ground off and the bridge fits over the teeth on each side of the gap (missing tooth) like a cap or crown. If the teeth on each side of the gap are healthy, I would not want to grind them down for a bridge. I would not want an implanted piece of metal either, which is what a post or implant is, but then, I don't have an issue with a gap. Some of this just boils down to what you feel you must do. Don't ever let a dentist or anyone push you into anything until you know everything about what is going to happen and you have peace about it.

### **EXTRACTING OLD MERCURY FILLINGS**

If you have been into alternative health, you may have heard that the silver fillings in the teeth were loaded with mercury and needed to be removed. Think carefully about that. I have helped people in just about every health condition you can imagine and rarely have we found mercury to be a primary cause of the issue. In other words, I have never had to recommend for someone to get the mercury out of the teeth in order for them to get better. There are many who have had the mercury taken out of the teeth and found notable health changes, but there are other ways to achieve the same results without the trauma and expense that mercury removal can cause.

### **WHAT CAN THE TEETH TELL US?**

Symbolically, plaque on the teeth indicates the amount of plaque you are accumulating in your arteries. If you accumulate plaque on your teeth easily, your arteries are probably forming plaque as well. But cleaning your teeth does not help your arteries any. Also notice that some foods tend to make your teeth real grimy feeling and you want to go brush them or scrape them with your finger nail; these foods are really hazardous to your arteries. Chinese food does it to me every time. A different food might do it to you. You will notice that it is generally a cooked fat or oil that gives this grimy feeling on the teeth. The teeth actually reveal the overall health of the bones so if you have a lot of cavities and weak teeth; you need to find out what to do for your bones. Your teeth are nothing more than an extension of your bones. God did not create bone density tests, but He did have a way for a person to know how the bones were doing...the teeth. Saliva contains the minerals needed for the teeth to remain strong. If the saliva does not contain those minerals, which is evident if you have poor health of the teeth, then your blood does not have the minerals to keep your bones strong.

### **WHAT CAN THE GUMS TELL US?**

Gums indicate the general health of the intestine, specifically the history of acidity. PH is a primary issue in the body's state of disease or regeneration potential. Acid/alkaline levels are very important, making the health of the gums a reflection of what is happening on the deeper levels of body cells. If you have gum disease, you are surely overly acidic and headed for more chronic issues. The most important issue in restoring gum disease is to restore alkalinity. First, balance the health of the intestines. PH of the Stomach is especially important. Make sure there are sufficient Enzymes (supplementally or in a diet of raw fruits and vegetables). Also make sure you consume enough water and fiber. If you have a serious gum disorder, you should eat an alkaline diet and make sure all elimination channels are working. Feel free to use fiber supplements to encourage this.

In addition to working on alkalinity, reports have shown that the gums can be reconnected to the teeth by taking a Vitamin C and Baking Soda solution. Mix one-half teaspoon of ascorbic acid Vitamin C with one-half teaspoon of Arm and Hammer baking soda in a cup with only one inch of water. Let it fizz and then fill the rest of the cup with water and drink that each day. The resulting sodium ascorbate is non-acid, very pure and a thousand times more soluble than vitamin C. Sodium ascorbate is more active than ascorbic acid (C) in building connective tissue and antibody structures and more effective in killing some viruses and bacteria. Receding gums and plaque are ended when soap is used for brushing and vitamin C is taken daily.

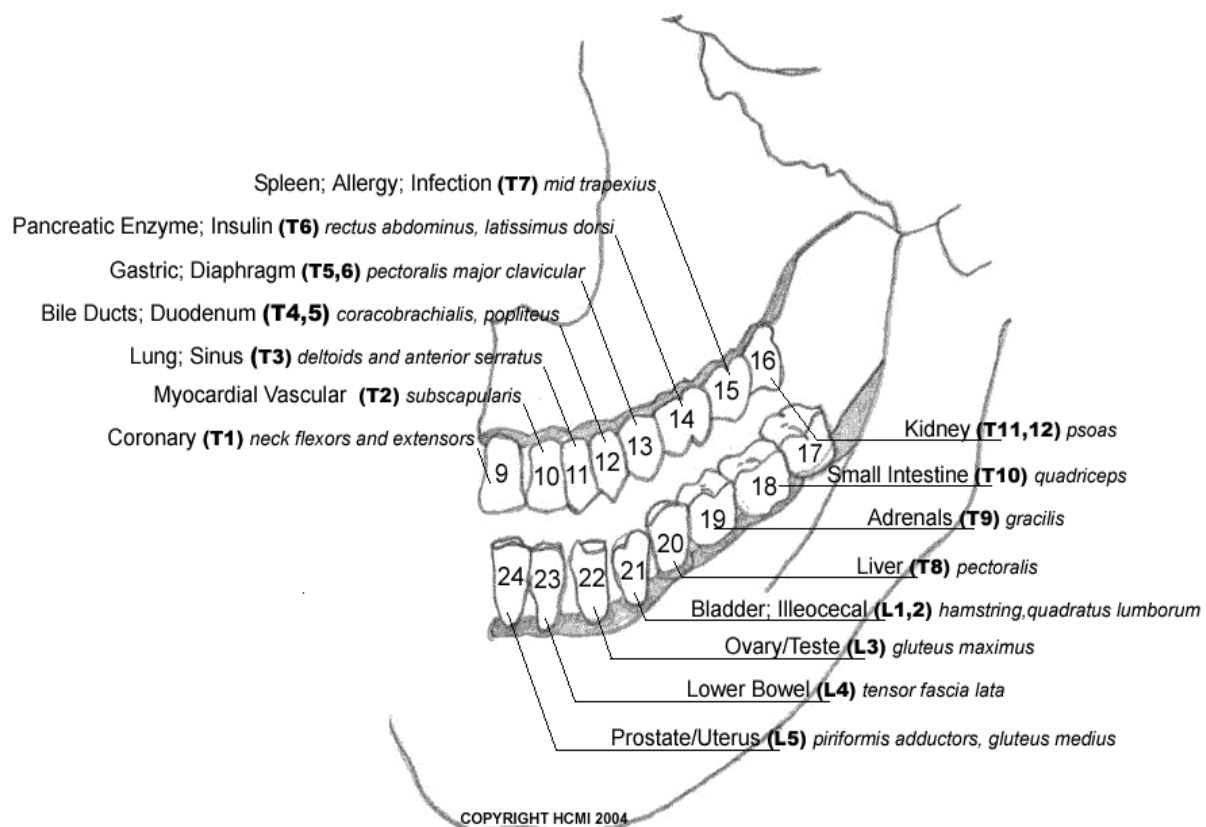
### **WHAT ELSE DO THE TEETH DO?**

Do the teeth have any other function other than to break food up (mechanical digestion)? Not according to medical science, but the answer is yes. The teeth actually release a small electrical current every time you chew. One of the reasons you release saliva when you eat is so that it can act as a conductor for the currents released by the teeth. Each tooth is electromagnetically connected to an organ or gland. When that organ or gland becomes deficient in a nutrient, it sends the message to the mouth via the teeth and saliva. When you begin chewing the food, the tooth is supposed to send microcharges into the foods almost as if giving them a signal so they know where to go when they reach the blood stream. If you have a root canal, a pulled tooth or anything that is not a healthy tooth, that charge is

either missing or disrupted. The charge is not absolutely essential to being healthy, but if the food is not charged before it reaches the blood, the body must use energy from other sources to signal it. The body has many ways to conserve energy if we will help it out.

People think of the teeth as localized items, but teeth actually reflect the health of the correlating, governing organs. The following chart shows the connection between the teeth and the correlating organ. What this means is that any problem with a tooth is actually a problem in the governing organ. If you can identify the issue in the organ and correct it, the tooth will heal.

## TEETH AND BODY CORRELATION



\* Teeth on left and right have identical representation.

## NUTRITION: TEETH AND MOUTH

- **Strengthen gums** by stabilizing collagen with
  - Bilberry Fruit and Hawthorne Berry
- **Reduce plaque** with Licorice Root extract (best in alcohol, not glycerin)
- **Loose Teeth** - strengthen the sockets of the teeth (sockets are considered joints)
  - Alfalfa
  - Cinnamon Bark
  - Turmeric Root
  - Yellow Dock
- **Mouthwash for Gums** – make a rinse out of several or all of the following and use twice a day for plaque, bleeding, gum disease or any similar condition:
  - Aloe
  - Bay Leaf
  - Bloodroot
  - Calendula
  - Cayenne
  - Echinacea
  - Goldenseal
- **Gum Disease** - that needs something stronger than a rinse – the following are most effective when rubbed directly on the gums in powder form. If any of these do not come in powder, buy as leaves and grind them to powder with coffee grinder or other means. Use single ingredient or mix several:
  - Anise seed powder
  - Clove powder
  - Myrrh Gum powder
  - Peppermint leaves crushed to powder
  - Prickly Ash Bark
  - White Oak Bark powder
  - Eucalyptus Oil
  - Tea Tree Oil
- **Mouth Sores** (canker sores) may need one or more of the following:
  - Alum
  - Cinchona Bark
  - Gotu Kola heals wounds and promotes connective tissue growth
  - Licorice Root powder packed on the sore, or suck on DGL lozenge
  - L-Lysine
- **Tooth decay** and malformation can be helped (prevented / halted) with Green Tea, which is high in the organic (good) form of fluoride, which is what the body needs for strong teeth. Put no sweetener in the tea. You will need 3-10 cups a day depending on severity of the condition. Make sure you don't make the tea in water that has chlorine or fluoride. Burgamot, Chaparral, Myrrh, and Prickly Ash (often called Toothache Tree), are also good to fight decay and tooth pain from decay.
- **Tooth sensitivity** from thin enamel, can be helped with Black Walnut herb consumed daily.
- **Whitening of teeth** can be achieved with one or more of the following items rubbed on the teeth as if you were brushing your teeth with them. One expert says, "Prepare a mixture of charcoal of babul wood, roasted alum and some rock salt. Rub this on the teeth instead of using the conventional toothpaste."
  - Babul
  - Banyan Root
  - Holy Basil Leaves
  - Margosa (Neem)
- If there is bad breath but no cavities, look to the intestines for help, not the teeth or mouth.
- Eliminate commercial tooth paste with fluoride. Use something natural, preferably without glycerin.

## SECTION 2

### DIGESTIVE / INTESTINAL

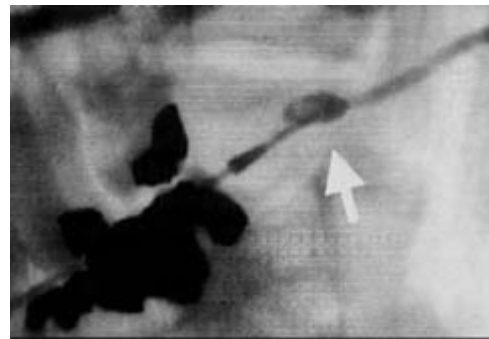
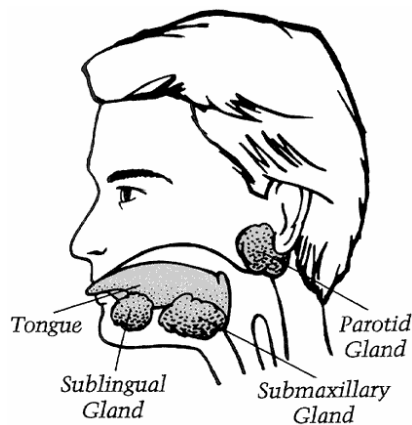
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## Chapter 3

### Saliva

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The salivary glands produce and secrete saliva into the mouth continuously to keep the mouth moist. There are three main types of salivary glands; parotid glands, submandibular glands and sublingual glands. *Parotid glands* are the largest. They are located in front of and somewhat below each ear between the skin of the cheek and the masseter muscle. The parotid glands secrete a fluid through the *parotid duct* (Stenson's duct). This fluid is rich in amylase. The *submandibular glands* are located in the floor of the mouth on the inside surface of the lower jaw. They primarily secrete serous cells through the *Wharton's duct*, which open under the tongue, near the frenulum. The *sublingual glands* are the smallest salivary glands found on the floor of the mouth under the tongue. They secrete mucous cells through the *Rivinus's ducts* through the mouth. Within saliva glands are two types of cells, serous cells and mucous cells. *Serous cells* secrete a watery fluid containing amylase, a digestive enzyme that acts as the first step of carbohydrate digestion. *Mucous cells* secrete a thick liquid called mucus which helps to bind food particles together and acts as a lubricant for swallowing.



X-ray demonstration of salivary duct stone

### CEPHALIC ACTION

One of the first stages of digestion is cephalic action, not chewing. This is when the nose smells the food and receptors in the brain begin to automatically release saliva. The release of saliva is controlled by parasympathetic response. Vice versa, if you smell something you don't like or your brain does not feel it would be of benefit to your body, sympathetic response withholds salivary release.

### SALIVARY DUCT STONES

Calcium will often crystallize causing a stone. The common symptoms are pain and swelling of the affected gland at mealtimes. This occurs if the stone completely blocks a duct. You normally make extra saliva during a meal which pours into the mouth. However, the saliva cannot pass into the mouth if the duct is blocked by a stone. The pain can be sudden and intense just after starting a meal. Swelling soon follows. The pain and swelling ease over about 1-2 hours after a meal.

However, most stones do not block a duct completely. A stone may only partially block saliva flow, or not block the flow at all if it is embedded in the body of the gland. In these situations the symptoms can vary and include one or more of the following.

- Dull pain from time to time over the affected gland
- Swelling of the gland. Swelling may be persistent, or vary in size from time to time
- Infection of the gland may occur, causing redness and pain. This may develop into an abscess (ball of infection and pus) and make you feel quite unwell
- No symptoms at all. A stone may be found by chance on an x-ray taken for another reason

Salivary stones are not serious and do not require any medical attention unless your health program is not relieving pain you may be having.



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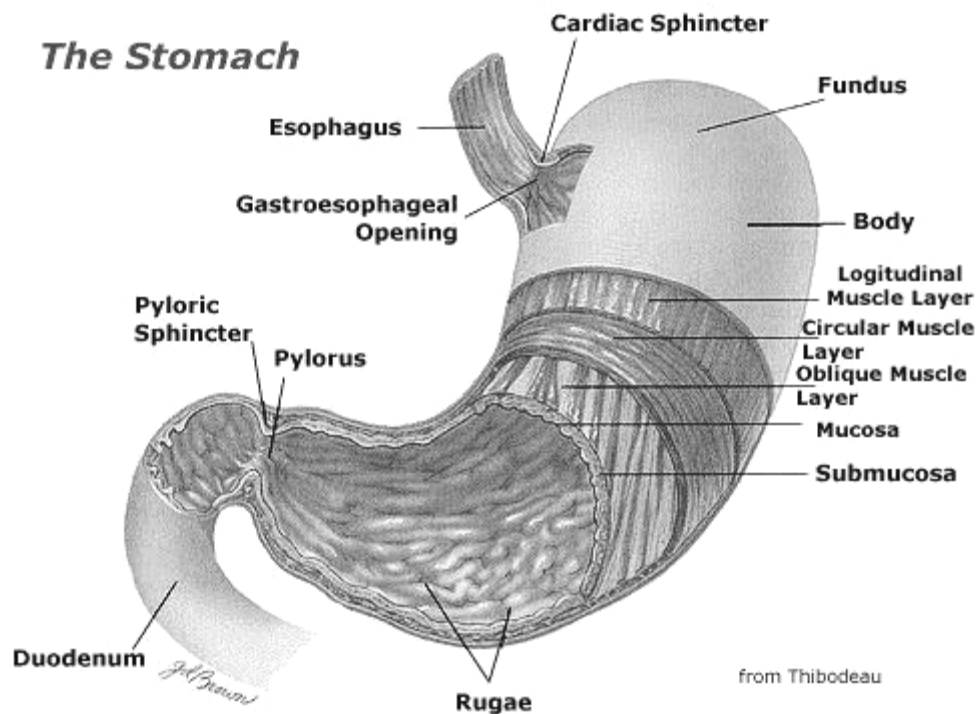
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#### Chapter 4

##### Stomach

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After food has been chewed very well and thoroughly mixed with saliva, food is swallowed. It first passes into the *pharynx*, then down the *esophagus*, penetrating the diaphragm muscle through the esophageal hiatal and finally past the lower *esophageal sphincter* (cardiac sphincter) into the stomach. The stomach is a J-shaped, pouch-like organ, about 25-30 centimeters long, which hangs under the diaphragm in the upper left portion of the abdominal cavity. It has a capacity of about one liter or more, and its inner lining is marked by thick folds (rugae) of the mucosal and submucosal layers that tend to disappear when its wall is distended (full of food). The stomach receives food from the esophagus, mixes it with gastric juice, initiates the digestion of proteins, carries on a limited amount of absorption and moves food into the small intestine.

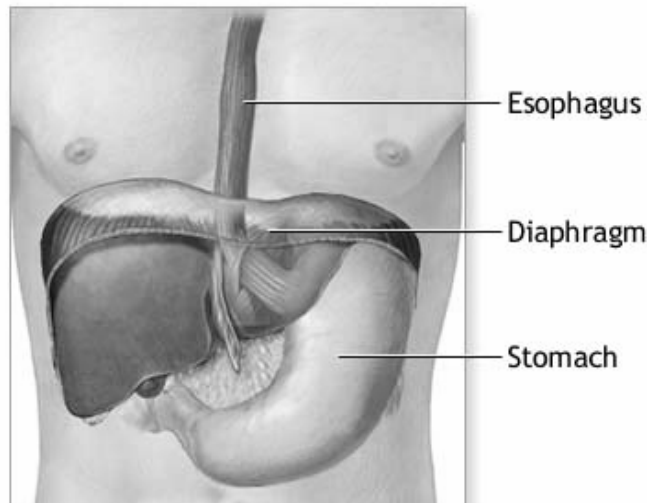


#### FUNCTION

When swallowed food reaches the stomach, and is acted upon by gastric juices. Gastric juices are secreted by gastric glands in the stomach wall. These glands contain three main types of secretory cells; mucous cells (goblet cells which secrete thin mucus), chief cells (peptic cells which secrete hydrochloric acid and pepsinogen) and parietal cells (oxyntic cells which secrete intrinsic factor and somatostatin). The products of these three cells combine to create gastric juices.

Pepsin is the most important digestive enzyme in the stomach because it is responsible for protein digestion. Pepsin begins as hydrochloric acid when it is excreted by the *chief cells*, but is converted to pepsin by a nonerosive enzyme precursor called *pepsinogen* (also secreted by the chief cells). The *mucous cells* contained in gastric juice secrete large quantities of thin mucus used to line and protect the stomach walls. This is important because pepsin is strong enough to digest the protein that creates the stomach wall. Mucosal cells also release histamine which stimulates additional release of gastric juice. Lipase is another of the gastric juices. It is responsible for splitting fats. Lipase is primarily used as a buffer in the stomach as the high acidity of the stomach inactivates much of its power. Gastric juice also contains *intrinsic factor* which aids in the absorption of B12. Intrinsic factor is secreted by the *parietal cells*. Parietal cells also secrete somatostatin to suppress the acid secretions if they get too high. The stomach will continue to release gastric juices until the stomach PH reaches 1.5. Food combined with gastric juice creates a mushy substance called chyme. As the chyme builds pressure against the *pyloric sphincter* (the valve between the

stomach and the small intestine), it is slowly released into the small intestine for the next stage of digestion. It takes about thirty minutes for fruits to move through the stomach and into the small intestine, while it takes approximately six hours for fats to finish processing. The primary action in the digestion of protein is in the stomach. The stomach absorbs a little water, glucose, certain salts, alcohol and lipid soluble drugs, but most digestion takes place in the small intestine.



### **MORE ABOUT CEPHALIC ACTION**

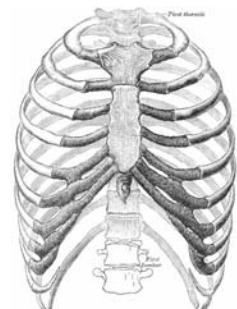
Cephalic action is the secretion of gastric juices because of a parasympathetic response from the sight, taste or smell of food. It is very important to enjoy all attributes of food, not just the taste because thirty to fifty percent of gastric juice is secreted because of cephalic action. This parasympathetic impulse is sent along the vagus nerve fiber. When the parasympathetic nerves give the signal that there is food around, the signal is sent to the stomach via the vagus nerve to release *gastrin*, a peptide hormone. In the presence of gastrin, the gastric cells produce more gastric juice. Gastrin, histamine and acetylcholine are all released to increase gastric juice secretion if the body senses there is not enough in the stomach. Gastrin is also released if the body senses a distention of the stomach wall (a sign of overeating or not chewing enough) knowing that extra acid will be needed for the extra food or the particles of food that were not chewed into small enough pieces. The stomach will need gastrin to help dissolve them into the smallest particles possible. If particles are not broken down, the small intestine will not be able to assimilate the food. Thus, the importance of chewing well.

### **HIATAL HERNIA**

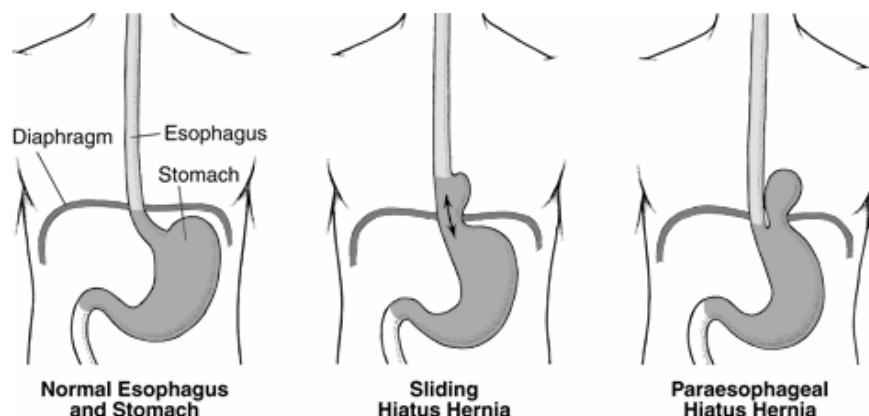
Any time an internal body part pushes into an area where it doesn't belong, it's called a hernia. The hiatal is an opening in the diaphragm -- the muscular wall separating the chest cavity from the abdomen. Normally, the esophagus (food pipe) goes through the hiatal and attaches to the stomach. In a hiatal hernia (also called hiatus hernia) the stomach bulges up into the chest through that opening.

There are two main types of hiatal hernias: sliding and paraesophageal (next to the esophagus). In a sliding hiatal hernia, the stomach and the section of the esophagus which joins the stomach slide up into the chest through the hiatus. This is the more common type of hernia. The paraesophageal hernia is less common, but is more cause for concern. The esophagus and stomach stay in their normal locations, but part of the stomach squeezes through the hiatus, landing it next to the esophagus. A hiatal hernia is not the same as an inguinal hernia that often requires medical attention. Hiatal hernias do not require medical attention.

You can be pretty sure that you have a hiatal hernia if you have pain while applying pressure to the xiphoid process. You can locate it by placing the fingers of each hand on your lowest rib. Follow the ribs to their meeting point at the center of your chest. Now press in and up slightly. The severity of the pain while palpating that point often indicates the severity of the hernia inflammation. Often, people with hiatal hernia also have heartburn or GERD. People with a hiatal hernia may experience chest pain that can easily be confused with the pain of a heart attack. Other symptoms may include falling asleep when sitting (because the hernia is not allowing the diaphragm muscle to expand all the way and oxygen is deprived from the



brain), pain in the stomach after eating (due to the inflammation of the stomach and the inability to digest the contents), hiccoughs, burping and becoming “full” when you have only eaten small amounts of food. Most angina, heart burn and reflux (acid indigestion) are caused by hiatal hernia.



*If you drink a half cup of warm water with fresh lemon juice in it, then stand on your tip toes and allow your body to drop down on your heels a few times in a row, it will often pull the hiatal hernia down to relieve symptoms while you work on correcting the cause.*

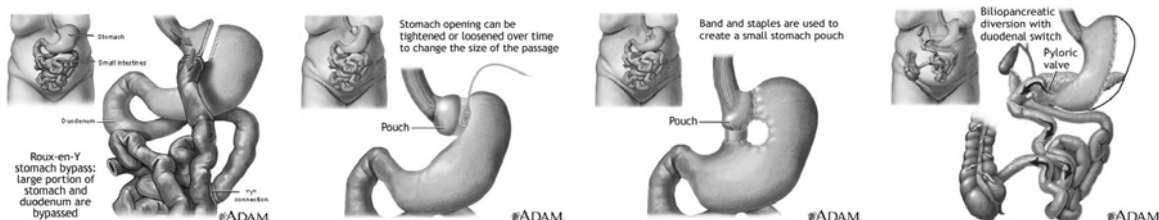
The presence of a hiatal hernia (which is extremely common) indicates the stomach’s stage of digestion is being inhibited. The amount of inhibition varies. Hiatal hernia is a symptom which comes from the colon’s inability to expel waste. One of the first causes is a reduction in proper levels of the enzyme hydrochloric acid in the stomach. When the stomach does not have enough acid, it cannot do its job and remains under constant strain. The food that is not digested puts extra strain on the following portions of the intestine. The person suffering with hiatal hernia needs to do some colon cleansing, then help the body with the digestion of food by food combining and/or correcting the digestive abilities of the stomach, liver and pancreas. Eliminate foods that cause stomach stress, cleanse the colon, take enzymes and you should be fine.

## VOMITING

Vomiting can be a sign of hiatal hernia or it may be a sign that the body was given something it was not supposed to have and got rid of it by throwing it up instead of making you feel worse by sending it all the way through the intestine to the bowels. If you vomit food up for no apparent reason, the body is trying to tell you that it is not able to digest the food and it will do more harm to send it all the way through your system than to just get rid of it. This is why the body will often initiate the vomit reflex in the brain when contaminated food is eaten. Nausea is a mild form of vomiting, meaning the same nerves are triggered in the brain, but the muscle contractions are not being initiated. When the body is nauseous, don’t eat because all stomach peristalsis ceases and gastric juices are not secreted. This means no digesting is going to take place. The small intestine actually reverses the peristaltic action and sends the food back to the stomach during nausea (in case you need to throw it up).

## STOMACH STAPLING AND BYPASS SURGERIES

These are obviously ill advised by anyone thinking “natural”. To alter the body is not healthy. Alteration does not allow healthy function. The following photos demonstrate the barbarianism of these procedures.



More information about these procedures can be found at <http://health.allrefer.com/health/gastric-bypass-info.html>

## THE BALANCING HAND SPIRAL

This procedure can be done for any kind of pain or discomfort in the body. Its purpose is to take a concentration of toxins that are obviously too much for one part of the body to handle (which is why there is pain) and spreading it throughout the surrounding tissues so other parts of the body will assist in the detox process. This is primarily used for stomach pain and illeocecal valve weakness.

BEGIN with the fingers together and use your kinesiology to see if you should move in a clockwise or counter clock wise direction. If you do not use kinesiology, simply try each direction and see which one brings relief. Generally the body will want a counterclockwise direction for dissipation or relief of inflammation.

Take all the fingers of one hand and place the tips together. The tips of the fingers will be your magic wand for this treatment. Find a starting point right over the painful area and start making a circular motion. You are moving your fingertips in a circle over the area of discomfort now. Continue moving around in circles allowing each circle to be larger than the one before. Continue until you are 6-8 inches away from the central pain point. When you reach the outside of the circle, stop tracing and come back in to the center and begin the process again. Repeat as many times as possible until the pain is relieved. Your fingers should be making a circular pattern similar to those used on a hypnosis wheel. It starts in the center and gets large but never ends. This will dispel the toxins in the intestine.

## **INDIGESTION**

Indigestion, also known as dyspepsia, is a broad description of several different stomach ailments. Under the indigestion umbrella are conditions such as acid reflux, heartburn, bloating, and gastritis. Essentially, indigestion is the result of consuming too many spicy, fibrous, or fatty foods too quickly. The stomach's acids become temporarily overwhelmed and the churning liquids may be sent back up through a portion of the esophagus, a process called reflux. This often leads to a burning sensation near the heart, which is why the pain is often called heartburn.

Some indigestion is caused by improper eating techniques, especially speed eating. Swallowing food too fast can cause pockets of ingested air to form in the stomach. Excessive consumption of carbonated drinks or acidic beverages such as wine can also trigger bouts of bloating and indigestion. Relief from this type of indigestion is usually found through belching or a few hours of rest. It's not just certain types of foods which can trigger indigestion. Stress and anxiety can lead to a triggering of excess stomach acids, which means an average meal could still create indigestion.

## **ULCERS**

While the word ulcer can refer to any type of sore or lesion that won't heal, in common usage it typically refers to peptic ulcers. A stomach ulcer is a small erosion (hole) in the gastrointestinal tract. The most common type, duodenal, occurs in the first twelve inches of small intestine beyond the stomach. Ulcers that form in the stomach are called gastric ulcers.

The major symptom of an ulcer is a burning or gnawing feeling in the stomach area that lasts between 30 minutes to 3 hours. This pain is often interpreted as heartburn, indigestion or hunger. The pain usually occurs in the upper abdomen, but sometimes it may occur below the breastbone. In some individuals the pain occurs immediately after eating. In other individuals, the pain may not occur until hours after eating. The pain frequently awakens the person at night. Weeks of pain may be followed by weeks of not having pain. Pain can be relieved by drinking milk, eating or resting. Appetite and weight loss are other symptoms. Persons with duodenal ulcers may experience weight gain because people eat more to ease discomfort. Recurrent vomiting, blood in the stool and anemia are symptoms in extreme cases.

Most people run to the antacids, but it should be noted that most people do not have enough stomach acid and the symptoms are exactly the same as too much stomach acid. Since the majority of people have too little acid, the best natural relief is apple cider vinegar. If this does not help, aloe vera juice should do the trick. Because most people are already too low in acid, using antacids is actually moving the body in the wrong direction in the sense that you are reducing the little acid that is there and the fact that antacids have a lot of ingredients you don't want in your body.

Because the stomach is a highly acidic environment, it was thought that bacteria simply couldn't live there for long. However, in 1982, Robin Warren, an Australian pathologist, proved that patients with chronic ulcers also had colonies of bacteria inhabiting their stomach. Barry Marshall, of the University of Western Australia, took this finding and, working with Warren, located and identified the bacterium in question, which they named *Helicobacter pylori*.

## NUTRITIONAL SUGGESTIONS FOR THE STOMACH

- Digestive Enzymes (Digestive Aid by HCMI): Take a couple with each meal, but make sure the enzymes are from plant sources. Enzymes are only found in raw foods, which the human body was designed to live on. The intestines do make enzymes, but these are back-up sources which will become depleted over time (sooner than later for some, causing pancreas weakness).
- Hydrochloric Acid: This is the protein splitting enzyme in the stomach. Most people believe they are over acid, but the fact is that most people do not produce enough acid. Symptoms of over acid and under acid are the same. I often suggest a general digestive enzyme and then have people take additional Apple Cider Vinegar as it will promote the stomach to release more hydrochloric acid on its own. If that is not enough, then an HCL supplement may be in order. Safflowers (herb) helps stimulate hydrochloric acid production.
- Soothing herbs that may help the stomach heal in cases of chronic weakness include: Marshmallow Root, Slippery Elm, Ginger Root, Peppermint Oil or a similar herbal combination.
- Herbs that help with Stomach related complaints include:
  - Apple Cider Vinegar helps initiate the stomach to make hydrochloric acid naturally.
  - Calcium Citrate Powder 250 mg, dissolved in water after meals
  - Catnip aids digestion, colic in babies, calms the nerves and nourishes stomach.
  - Chamomile can soothe the mucus membrane of the digestive system.
  - Fennel Seeds\* relieves flatulence and colic, can stimulate appetite.
  - Ginger Root\* helps to stimulate a sluggish digestion.
  - Lemon Balm relaxes nerves, alleviates stomach gas and cramps.
  - L-glutamine powder helps heal the stomach lining and gastritis.
  - Licorice Root or DGL (deglycyrrhizinated licorice) heals the stomach lining.
  - Marshmallow Root protects and soothes mucous membranes, counters excessive acid.
  - Meadowsweet has an antacid effect, anti-inflammatory, has natural aspirin effect.
  - Peppermint Oil or tea for digestion, antispasmodic and soothes nerves.
  - Slippery Elm soothes the mucus membranes relieving many symptoms.
- Spices you may have in your kitchen that help digestion. Most of these would be found in a dry form, so putting a pinch in a cup of hot water may be the best use:

*Always start with small doses as spices can be irritants if too much is used.*

  - Allspice Powder (not the oil) helps digestion.
  - Caraway aids digestion and useful in relieving menstrual cramps.
  - Celery Seed can act as a diuretic and mild sedative (small amounts!).
  - Cilantro (known as Chinese Parsley or Coriander) aids digestion.
  - Dill can aid digestion.
  - Oregano\* aids digestion, relieves nasal congestion and menses cramps.
  - Parsley reduces fluid retention, nasal congestion and fever.
  - Peppermint, just a couple drops in water if it isn't therapeutic grade.
  - Rosemary aids digestion and helps relieve congestion.
  - Thyme aids digestion, soothes coughing and relieves menstrual cramps.
  - Turmeric can be a great anti-inflammatory.

\* Indicates to use with caution if pregnant

## TIME OF ACTIVITY/PAIRED ORGAN

7 - 9 p.m. Because the stomach begins to detoxify at 7 p.m., it is not wise to eat after that time as the food will not be fully digested. When food does not digest, it begins to putrefy and create fat because it becomes unused calories (the body stores it as glycogen). The body cannot clean and work on digestion at the same time. If both are required, one will be compromised. If the stomach becomes very weak, the body will draw energy from the spleen and/or pancreas, its paired organ in terms of The Five Element Theory.

## EMOTIONAL

Disgust is the emotion associated with the stomach. When the stomach becomes weakened, everyone around you will seemingly do everything wrong. Nothing is done to your satisfaction. You become easily disgusted. People that are disgusted tend to like or make growling noises.

### **SUGGESTIONS TO STRENGTHEN**

- Eat more raw, less cooked foods (118 degrees kills the enzyme action). If raw does not settle well in your stomach, steam your vegetables for three to five minutes first. If a person has lots of longitude ridges on the fingernails, chances are they cannot absorb and digest nutrients, so steaming the vegetables is better than eating raw vegetables in this case because steamed vegetables are much easier to digest.
- Fruit and cleansing foods are best as the first meal of the day with a hot herbal tea, not coffee.
- Make sure the bowels are evacuating well; well means once per meal eaten.
- The stomach-weak person should highly consider food combining.

### **EVIDENCE OF WEAKNESS**

- Center of upper lip becomes swollen - hyperactive stomach; center of the upper lip peels - dehydrated stomach; center of upper lip becomes indented or concaved = under active stomach
- Any issue, including visual issues with the center of the upper lip, indicates some form of stomach weakness or issue.
- Large pores in the face or the nose = cannot digest animal fat and have a hard time digesting animal protein
- Grimy teeth after eating a particular food indicate you ate something you were not able to digest and that food will make its way to your arteries and build plaque.
- A bump or lump, where the ribs meet at the end of the xiphoid process, indicates stomach distress.
- The center of the nose, between the tip and the bridge is another area reflective of stomach health.

## SECTION 2

### DIGESTIVE / INTESTINAL

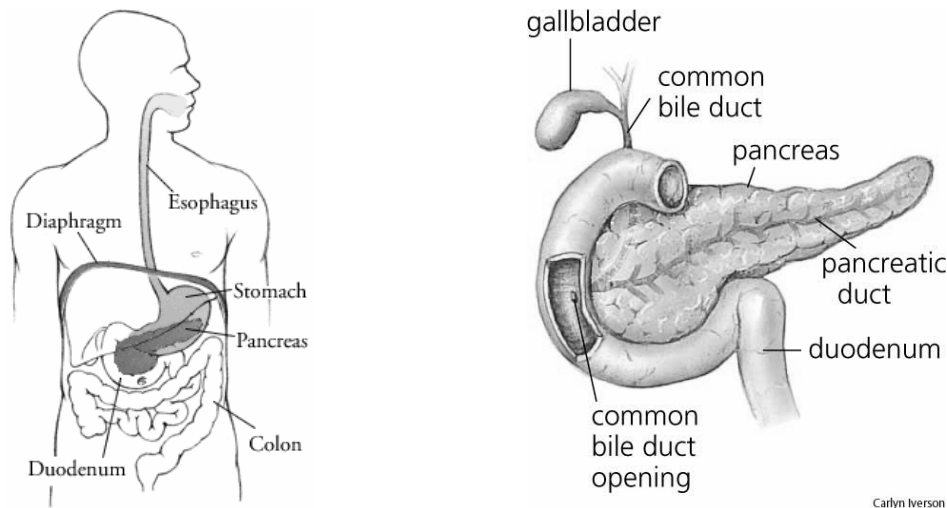
Teeth / Saliva / Stomach / Small Intestine / Pancreas / Large Intestine / Skin

#### Chapter 5

##### Pancreas

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The pancreas is an elongated, somewhat flattened organ that is posterior to the stomach and behind the parietal peritoneum. It is attached to the first section of the small intestine (duodenum) by the common bile duct, which transports its digestive juice into the intestine.



Carlyn Iverson

#### FUNCTION

The bulk of the pancreas is made up primarily of *pancreatic acinar cells* which produce pancreatic juice. These cells cluster around tiny *acinar tubes*. These tubes are used to carry the secretions of the pancreas tissue to the *pancreatic duct* much like tributaries would take water to the main river. The pancreatic duct extends the length of the pancreas and empties into the duodenum portion of the small intestine. Before the pancreatic duct reaches the duodenum, it is joined by the bile duct from the gallbladder. These two ducts join at a short, dilated tube called the *hepatopancreatic ampulla* (ampulla of Vater). A band of smooth muscle called the *hepatopancreatic sphincter* (sphincter of Oddi) surrounds this ampulla and acts as a valve regulating excretion of the pancreatic and bile juices into the small intestine. The tail of the pancreas (evident in left Latissimus Dorsi muscle testing challenge) is primarily responsible for pancreatic juice or digestive enzymes and the head of the pancreas (evident in the right Latissimus Dorsi muscle testing challenge) is primarily responsible for insulin and the metabolism of sugar.

Loss or injury to the islets of Langerhans can lead to diabetes mellitus if pancreatic secretion of insulin is inadequate to properly regulate sugar metabolism. Inadequate pancreatic secretion of enzymes and/or bicarbonate-rich fluid can lead to impaired food digestion and absorption in the small intestine. Although the digestion and absorption of all types of food (proteins, carbohydrates, and fats) is effected, it is the abnormal handling of fats that produces the most problems since it leads to the passage of bulky, foul-smelling stools that contain undigested fats. In medical terms, this is referred to as "steatorrhea" and it is a sign that pancreatic function has been severely reduced or that the pancreatic duct is blocked. The normal pancreas can produce ten times the needed amounts of both insulin and pancreatic enzymes. Unless there is resistance to the actions of insulin, diabetes does not develop until insulin production has been reduced by nearly ninety percent. Similarly, steatorrhea does not develop until the production and secretion of pancreatic enzymes has been reduced by ninety percent or the main part of the duct in the head of the pancreas has become obstructed.

#### PANCREATIC JUICE FOR DIGESTION – the digestive (exocrine) part of the pancreas

The acinar cells make pancreatic juice which contains enzymes that digest carbohydrates, fats, proteins and nucleic acids. When the small intestine detects proteins and fats in the chyme (the wad of food passed from the stomach to the small intestine), the mucous cells of the small intestine release cholecystokinin into the blood. This is a peptide hormone that stimulates the pancreas to release pancreatic juice. *Pancreatic amylase* is used for digesting

carbohydrates and *pancreatic lipase* is used to digest fat. Pancreatic juice also contains *trypsin*, *chymotrypsin* and *carboxypeptidase*, which are used to split proteins into amino acids. Trypsin is secreted in an inactive form by the pancreas so digestion will not begin until the secretions have entered the small intestine. *Enterokinase* is released by the mucous cells in the small intestine to activate trypsin. Once trypsin is activated, it will activate chymotrypsin and carboxypeptidase. Pancreatic juice also contains two *nucleases*. These break nucleic acids into nucleotides which make the pancreatic juice alkaline.

### THE PANCREAS AND INSULIN – the endocrine (glandular) part of the pancreas

The pancreas is technically considered an endocrine gland although it has digestive functions, which make it an organ, or exocrine. Endocrine refers to cells that secrete hormones. The *Islets of Langerhan* are the endocrine cells of the pancreas. The Islets of Langerhan secrete three distinct hormone-secreting cells; *alpha cells*, which secrete glucagon, *beta cells*, which secrete insulin, and *delta cells*, which secrete somatostatin. *Glucagon* is a protein that stimulates the liver to break down glycogen into glucose. It also converts noncarbohydrates, such as amino acids into glucose if too much protein or too little sugar is supplied in the diet. Glucagon also stimulates the breakdown of fats into fatty acids. Alpha cells will become over stimulated if the blood sugar gets too low because they are stimulated to release extra glucagon so the liver will produce glucose (sugar). Thus alpha cell weakness can be a sign of low blood sugar.

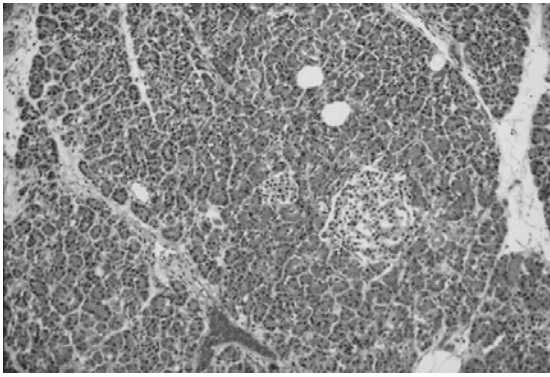


The primary focus of the Islets of Langerhan is really in the beta cells which secrete insulin. Insulin's job is exactly opposite that of glucagons. Insulin instructs the liver to convert glucose to glycogen and inhibit conversion of noncarbohydrates into glucose. In other words, Glucagon stimulates the body to release more sugar into the blood and insulin stimulates it to stop the release of sugar into the blood. Thus insulin decreases the concentration of blood glucose (sugar) and it promotes transport of amino acids into cells (needed for tissue building and repair). They are not antagonist to each other, they work together to keep the glucose levels constant rather than allowing spikes, which could cause coma. Insulin is primarily released after a meal when sugar levels are high. Remember that all carbohydrates are sugar, so you do not have to eat sugar to initiate insulin release, but sugar containing products like candy will surely initiate release faster. It is not good to have high sugar concentrations in the blood (hyperglycemia), thus insulin is released so the liver will convert the glucose to glycogen, the storable form of sugar. This sugar is stored in adipose or muscle tissue. This is why sugar is actually more fattening than fat (see below). As insulin levels decrease, the liver does not convert the glucose into glycogen for storage and this leaves more glucose (sugar) available for nerve cells. Neurons readily use a continuous amount of glucose for ATP production (energy). This is why low blood sugar can cause you to become shaky and temporarily lose mental capabilities, or constantly if you don't correct it. Thus weak beta cells would tend to indicate a high blood sugar level (not metabolizing, probably due to amylase deficiency or liver weakness, or you just eat too much sugar).

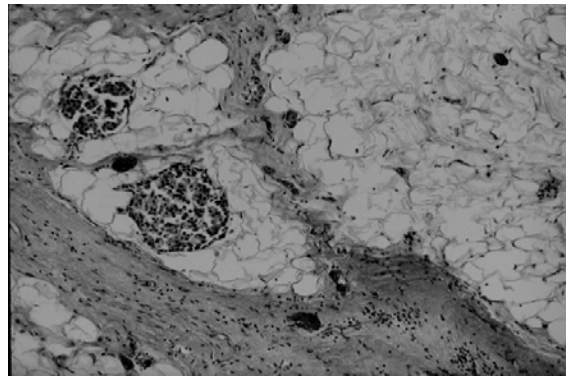
Somatostatin is a hormone released by the delta cells. It helps regulate the secretion of glucagons and insulin so glucose metabolism stays at optimum levels. You might think of somatostatin as the sugar police for the blood.

- If the pancreatic juice cannot be released because of blockage, it creates a painful disease called **acute pancreatitis**. The trypsinogen backs up into the pancreas and digests part of it in this disease. Blockage can result from alcoholism, physical trauma to the area, gallstones, certain infections and the side effects of some drugs.
- **Cystic Fibrosis** is a disease where toxins cause water to be drawn into the cells from the surrounding tissues. This leaves the tissues dehydrated, primarily in the lungs and pancreas. With no water, a sticky mucous is left which plugs secretions from the pancreas.





Microscope view of normal pancreas tissue



Cystic fibrosis in pancreas tissue

### **SUGAR MAKES YOU FATTEST**

People have been taught that fat is more fattening than sugar and although fat contains nine calories per gram and sugar only contains four calories per gram. Excess sugar is converted to glycogen and stored in the muscles as fat. Fat is not what you need to avoid, sugar is and technically, if you eat sugar in the form of complex carbohydrates, the food contains the minerals needed to burn them up by increasing the metabolic rate. If you eat sugar in the form of refined sugar as found in cakes, cookies, candy, pie and most prepared foods (high fructose corn syrup), you are eating sugar with no mineral content and it is simply stored as fat. The low-fat diets are not healthy at all. I agree that we should avoid hydrogenated fats, which is fried foods and animal fats, but in terms of weight, sugar is the enemy.

### **HYPOGLYCEMIA**

When you eat, the body converts food (especially carbohydrates) to blood sugar (glucose). The pancreas is required to make insulin, which the body uses to transport that sugar into the cells to be burned for energy. The reason for low blood sugar is that a person has too much insulin and not enough Cortisol in their body. Production of Cortisol, the hormone that raises blood sugar, takes place in the Adrenal gland. Typically, people with hypoglycemia have acid blood, meaning that blood pH is lower than normal. To correct the cause, you will need to find out why Cortisol levels are not staying regulated in the Adrenal gland.

### **EXERCISE AND DIABETES**

When you eat, the body converts food to blood sugar (glucose). When the body gets sugar, the pancreas makes insulin which is used to take the sugar from the blood stream and store it in the liver or carry the sugar into your cells where it is burned for energy. It's a beautiful system. Modern diets are excessive in carbohydrates, which are converted to pure blood sugar without the minerals, fats and proteins needed to balance out the sugar levels. When you don't produce enough insulin to deal with the amount of sugar in the blood, it is called Type 1 diabetes. If you produce enough insulin but your cells become resistant to it, it is called Type 2 diabetes. When the body gets inundated with sugar, people eventually become insulin resistant, which leads to syndrome X (nobody knows what to do for you then.). Basically you over worked your pancreas and your adrenals could not keep up with cortisol production. All the extra blood sugar in the body pulsing through your veins with nowhere to go will eventually damage your kidneys, eyes, nerves and feed the bacteria that causes arteriosclerosis and circulation problems.

In order to correct diabetes, it is important to avoid all sugars and refined carbohydrates although the natural sugar forms in fresh fruits and vegetables are not a problem. If you are already insulin dependant, strength training will be required. This helps to burn the excess sugar in the body. See *The Slow Burn Fitness Revolution* by Hahn, Eades and Eades for more details about strength training to cure diabetes.

### **ABOUT DIABETES**

There are two main types of full-blown diabetes. People with Type 1 diabetes are completely unable to produce insulin. Until the 1920's, when insulin was first discovered, people usually died from Type 1 diabetes. The invention of insulin injections allows these people to lead a full life today if they take care of themselves. People with Type 2 diabetes can produce insulin, but their cells don't respond to it. Diabetes affects nearly 21 million Americans. Up to ninety-five percent of all people diagnosed with the disease have type 2 diabetes.

#### ***Pre-Diabetes:***

Pre-diabetes means that the cells in your body are becoming resistant to insulin or your pancreas is not producing as much insulin as required. Your blood glucose levels are higher than normal, but not high enough to be called

diabetes. This is also known as "impaired fasting glucose" or "impaired glucose tolerance". A diagnosis of pre-diabetes is a warning sign that diabetes will develop later if nothing is done. You can prevent the development of Type 2 diabetes by losing weight, making changes in your diet and exercising.

### **Type 1 Diabetes:**

Prior to 1997, the type of diabetes typically diagnosed in young people was called juvenile diabetes or Type 1. Diabetes emerging in adults was called adult-onset diabetes or Type 2. Then in 1997, the official names of the types were changed to Type 1 and Type 2.

Type 1 diabetes is the second most common chronic disease in children (after asthma). About 13,000 new cases are diagnosed in the U.S. each year. Patients with Type 1 diabetes equal five to ten percent of all cases of diabetes. It most commonly appears in girls and boys when they are about 14 years old. Usually, type 1 diabetes is first diagnosed in children, teenagers, or young adults but it can occur at any age.

The onset of the disease happens quickly. As the insulin stops being produced and the blood sugar rises, this causes hyperglycemia. Several warning signs appear. Increased thirst, increased urination, fatigue, weight loss and blurred vision are a few of the most noticeable signs of Type 1 diabetes. When hypoglycemia develops, cells are not getting enough glucose. Confusion, loss of consciousness, coma and death results when the brain is deprived of glucose for too long.

Type 1 diabetes is an autoimmune disease in which the immune system attacks the beta cells in the pancreas that make insulin. As a result, the pancreas does not make insulin, a hormone which helps use blood sugar (glucose) for energy. The cells become starved of energy and there is an excess of glucose in the blood. People with Type 1 diabetes must have daily injections of insulin to live. Proper diet, exercise and home blood sugar monitoring are essential to manage the disease. Food and exercise must also be balanced because of the risk of hypoglycemia, low blood sugar, and hyperglycemia, high blood sugar.

Frequently testing blood sugar levels helps to let you know how much insulin you will need to keep your levels as near to normal as possible. The usual times to test are: before meals, before bedtime and maybe one to two hours after meals or a big snack. Also test before you exercise because exercise will lower blood sugar, and you don't want your blood sugar to drop too low either. This is called hypoglycemia.

For diabetics, when you eat is as important as what you eat. Eating meals that are approximately the same size and combination of carbohydrates and fats at the same time everyday helps to keep blood sugar regular and predictable. The best diet is one that is low in fat, low in salt and low in added sugars. Complex carbohydrates such as whole grains, fruits and vegetables are preferable over simple carbohydrates like sugary soft drinks and candy.

### **Type 2 Diabetes:**

A person with Type 2 diabetes has adequate insulin, but the cells have become resistant to it. Type 2 usually occurs in adults over 35 years old, but can affect anyone, including children. The National Institute of Health states that ninety-five percent of all diabetes cases are Type 2. Why?...It's a lifestyle disease, triggered by obesity, a lack of exercise, increased age and to some degree, genetic predisposition.

Diabetes is a disorder that affects the way your body uses food for energy. Normally, the sugar you take in is digested and broken down to a simple sugar, known as glucose. The glucose is released into the blood and the digestion process activates the pancreas to release insulin, which helps the glucose enter the cells of the body where it's used for energy. When someone is resistant to the effects of insulin, the glucose keeps circulating in the blood and doesn't reach the body's cells. This causes the body to try to get rid of the glucose in other ways such as:

- Frequent urination
- Increased thirst
- Unplanned weight loss
- Weakness and fatigue
- Numbness or tingling in hands, legs or feet
- Blurred vision
- Dry, itchy skin
- Frequent infections
- Slow healing of cuts and bruises

Excess glucose in the blood causes a lot of problems. The cells can't get enough of the glucose they need, and when glucose levels in the blood become too high, it causes damage to nerves and blood vessels, usually in the feet, hands, kidneys and eyes. Other complications of high blood sugar and insulin resistance include increased risk of heart disease and stroke. Complications include:

- Neuropathy - nerve damage, especially in extremities

- Nephropathy - kidney damage, kidney failure
- Retinopathy - vision problems, blindness
- Cardiovascular Disease - heart disease and increased risk of strokes
- Erectile dysfunction in men and decreased desire in both sexes
- Depression
- Amputation

### **Gestational Diabetes:**

Gestational diabetes (GD) affects about four percent of all pregnant women. It usually appears during the second trimester and disappears after the birth of the baby. Like Type 1 and Type 2, your body can't use glucose effectively and blood glucose levels get too high. When GD is not controlled, complications can affect both you and your baby. Having GD increases your risk for developing it again during future pregnancies and also raises your risk of Type 2 diabetes later in life.

### **Diabetic Ketoacidosis:**

The body becomes fatigued because the cells aren't getting the glucose they need for energy. The person may suffer a condition called diabetic ketoacidosis which means that the body starts to break down fats to make energy. This produces ketones which makes the blood increasingly acidic. This can cause a person to go into a diabetic coma and possibly even die. People with Type 1 diabetes must always take insulin for the rest of their lives in order to live with the disease. Ketones make the blood acidic and slow down all body functions. Like hypoglycemia, hyperglycemia can lead to ketones, coma and death.

### **NUTRITION**

- **Capsicum** can help promote enzyme secretion and blood circulation.
- **Chromium** (GTF form is best) helps regulate and metabolize sugar and sugar cravings.
- **Goldenseal** is high in natural insulin, but *don't use Goldenseal with hypoglycemia..*
- **Licorice Root** (*don't use with diabetics*) helps to stabilize blood sugar, particularly if the adrenal glands are related to the issue. This herb can help curb the craving for sugar, particularly if taken between meals. Good for those with hypoglycemia, combined with Spirulina may help more.
- **Uva Ursi** helps diabetics regulate high blood sugar.
- **Cinnamon** has been known to help regulate blood sugar, but it is a strong spice and does not work as predictably as the other options. You need a decent amount of cinnamon to give this therapy a fair chance, but cinnamon has an ingredient that can be toxic if used in high doses. The following procedure will eliminate the fat particles, which are the toxic particles and leave you with what you need to give this therapy a chance to work for you. Place one-half to one teaspoon of pure cinnamon in a pot with at least one cup of water, or more if you like. Bring the water with the cinnamon in it to a boil. Strain in a cheesecloth (to separate fat particles which are toxic to the body). The straining process captures the fat particles and the water that comes through the cloth is your therapeutic cinnamon. Drink daily.
- Herbs that may help regulate Blood Sugar (hypoglycemia, hyperglycemia, glucose, insulin):
 

○ Agaricus Mushroom Extract	○ Huckleberry
○ Aloe Vera (barbadensis form)	○ Jambolan Bark
○ American Ginseng	○ Juniper Berries
○ Bilberry (25% anothocyanins)	○ Kudzu
○ Blond Psyllium	○ Milk Thistle
○ Cassia Cinnamon	○ Mitter Melon
○ Cedar Berries	○ Neem
○ Eleuthro	○ Prickly Pear Cactus
○ Fenugreek	○ Red Sandlewood
○ Gulvel	○ Stevia
○ Gymnema Sylvestre	○ Tumeric
○ Holy Basil	

### **TIME OF ACTIVITY/PAIRED ORGAN**

9 - 11 pm. This is the time when this system is detoxifying. This information is valid in case a person has complaints at this time during the evening specifically, or complaints are more apparent or severe during this time.

If this is the case, it would indicate a primary weakness in this system. The paired organ for the pancreas is the small intestine. If the pancreas does not function well, it will take energy from the small intestine.

### **EMOTIONAL**

Sympathy is the emotion of the pancreas. People who are pancreas dominant tend to be playful, humorous, interesting; they enjoy helping others and telling jokes. Weakness would instigate bland, boring, non-emotional stereo types. The pancreas-weak person tends to feel sorry for everyone else's problems being sympathetic to them. While compassion is always good, sympathy only feeds the problem in the person who has it and leaves you open for acquiring the same problem. Sympathy doesn't help anyone. A healthy pancreas is present in a person who seems like they never grew up. Even as adults they are playing tricks, telling jokes and enjoying the sweetness of life. Perhaps this is part of what Jesus meant when He told us to be like children. Instead, we get religious and legalistic or focus on careers and work, forgetting about the fun and joy of life. Enjoy the sweet things, the fun and laughter in life. The pancreas is the system that will reveal how much sweetness in life you feel. Not how much you have, but how much you feel. Make sure you take time to play or your pancreas will get your attention. Remember, imbalance either way is indicative of weakness. So a person who can't be responsible and is always playful may indicate weakness as well. Moderation in all things.

### **SUGGESTIONS TO STRENGTHEN**

Back off the refined carbohydrates (sugar) and increase the fiber!

- If you are going to eat sweets, eat them just before you eat some protein (except dairy) to help balance metabolism.
- Consume a balanced diet of good fats (raw nuts and seeds, clean "kosher-type" fish for meat choices), complex carbohydrates and plant proteins.
- One of the primary jobs in the pancreas is to make digestive enzymes. If you eat food rich in enzymes (raw vegetables and fruits, or at least the fresh juice of these), you are taking strain off of the pancreas and give it more energy to heal and rejuvenate.
- Make sure the liver and adrenals are functioning well.
- Stop the stimulants - coffee, caffeine, etc.
- Eat regularly to keep your blood sugar stable.
- Indulge in the sweetness of life (jokes and laughter); the things that make happiness, good memories and dreams.

### **EVIDENCE OF WEAKNESS**

- Weak or sore latissimus dorsi and tricep muscles may indicate pancreas weakness.
- Thin lips
- Pasty white skin
- Watery eyes much of the time
- Skin tags are often a precursor to Insulin imbalance which can turn into diabetes.

## SECTION 2

### DIGESTIVE / INTESTINAL

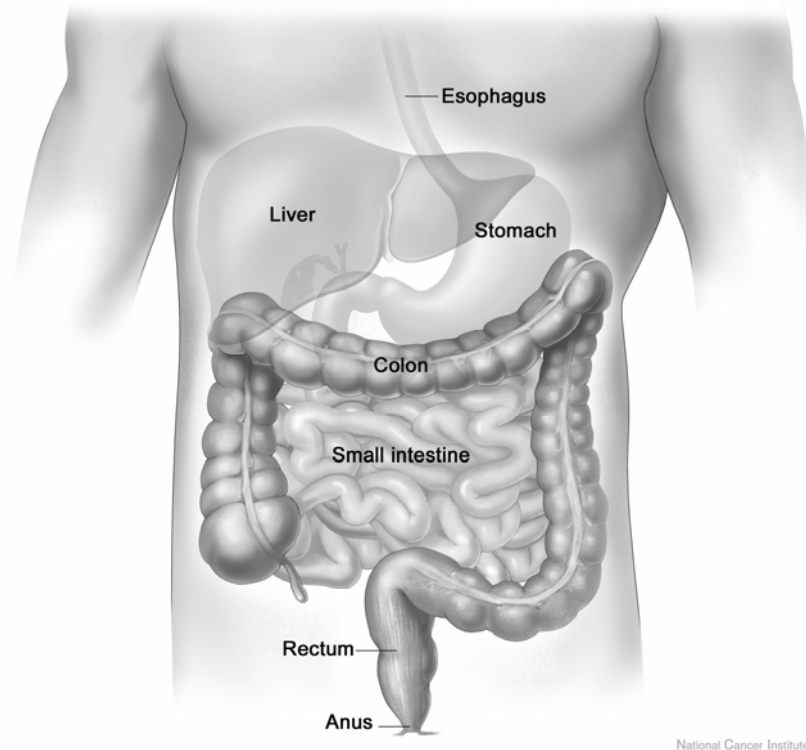
Teeth / Saliva / Stomach / Small Intestine / Pancreas / Large Intestine / Skin

#### Chapter 6

##### Small Intestine

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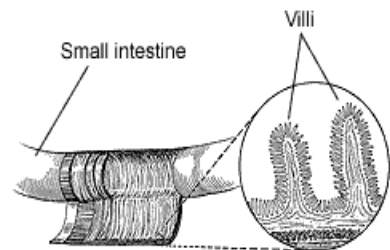
The small intestine is a tubular organ that extends from the pyloric sphincter, at the end of the stomach, to the beginning of the large intestine (ileocecal valve). With its many loops and coils, it fills much of the abdominal cavity. It may be 18-20 feet long depending on the size of a person.



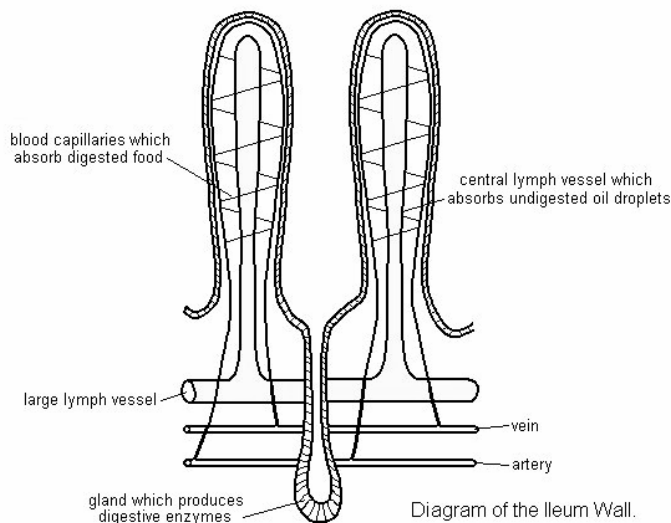
#### FUNCTION

The small intestine receives secretions from the pancreas, liver and gallbladder and it completes digestion of the nutrients in the chyme, received from the stomach. It is responsible to absorb or assimilate the products of digestion and send the rest of the chyme to the large intestine. The small intestine is primarily responsible for absorption of nutrients.

The *duodenum* is the first part of the small intestine. It is more stable than the rest of the small intestine which is made up of the *jejunum* and *ileum*. The *mesentery* is a double layered fold of peritoneum which contains the blood vessels, nerves and lymphatic vessels which supply the intestinal wall. As stated, the small intestine receives its food mixture, commonly referred to as chyme, from the stomach. Chyme is very acid when it comes from the stomach because of the pepsin content. The enzymes from the pancreas help to alkalize it, which is important because the small intestine is an alkaline organ and too much acid will decompose the mucous walls and create ulcers. The small intestine receives the enzymes from the pancreas through an opening in the duodenum, the hepatopancreatic sphincter. This sphincter remains closed unless the small intestine releases *cholysistokinin* into the blood. This hormone triggers the sphincter to open long enough for a squirt of bile to be released.



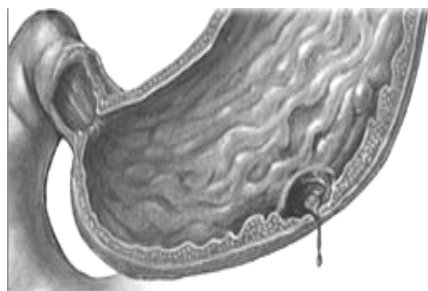
The inside of the small intestine looks like velvet because there are innumerable amounts of mucous membranes that contain epithelial cells with microvilli. These microvilli have digestive enzymes embedded in them including, peptidase, sucrase, maltase, lactase and intestinal lipase. These *villi* and *microvilli* along with *lacteal* (lymphatic capillaries) absorb nutrients and place them directly into the blood stream where they are transported to the liver for inspection via the portal vein. The small intestine contains *goblet cells* which release mucus to protect the walls of the intestine against the acid pepsin that came from the stomach and *Brunner's glands* which secrete a watery substance to "float" nutrients to the villi for absorption. *Nerve fibers* in the intestine monitor the environment and initiate hormone release if needed. These include *enterokinase*, released to activate trypsin from the pancreas and *cholysistokinin*, released to trigger opening of the hepatopancreatic sphincter (allowing a squirt of bile in the presence of fat or protein). Secretin and nuclease are released to help alkalize the acid contents. Epithelial cells are replaced every three to six days, meaning they are shed and new ones take their place. This is called *cellular turnover*.



## SUMMARY

Carbohydrate digestion begins in the mouth with the secretion of amylase by salivary glands but is completed in the small intestine where pancreatic amylase and amylase secreted from mucous cells finishes the job. Protein digestion begins in the stomach as a result of pepsin activity and is completed in the small intestine by enzymes from the pancreas and mucous cells in the small intestine. This process takes large molecules and breaks them down into amino acids. Fat molecules are digested almost entirely by enzymes secreted from the pancreas and the mucous cells in the small intestine although bile from the liver helps complete that task. Bile from the liver, excreted by the gallbladder, plays a primary part in protein and fat digestion. When food has been acted upon and nutrients have been absorbed (along with the toxins you ate), the remaining chyme is sent to the end of the small intestine where it puts pressure on the ileocecal valve which allows entrance to the large intestine or colon. The ileocecal valve is a valve between the small and large intestine. It allows food to pass into the large intestine but does not allow it to wash back in to the small intestine. A toxic large intestine can accumulate sludge which can create imbalance in the valve. If the valve gets stuck open for any reason, the acid contents of the large intestine wash into the alkaline small intestine causing autotoxemia, which can cause frequent headaches that make you look pale.

## WHAT IS A STOMACH ULCER?



A stomach ulcer (also called a peptic ulcer) is a small erosion (hole) in the gastrointestinal tract. The most common type, duodenal, occurs in the first twelve inches of small intestine beyond the stomach. Ulcers that form in the stomach (shown) are called gastric ulcers, but they can form in the esophagus, large intestine or any part of the intestine where the mucous lining becomes eroded. Erosion of the mucous lining requires excessive acidity and the small intestine is an alkaline organ. The stomach and large intestine are both acid organs which is why the small intestine is the primary location for ulcer formation. An ulcer is not contagious or cancerous. Duodenal ulcers are almost always benign.

### WHAT IS CELIAC DISEASE?

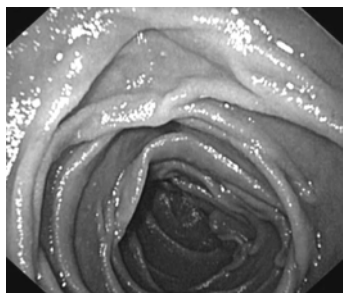
Celiac disease is also called celiac sprue, gluten sensitive enteropathy and non-tropical sprue. Celiac disease is a common cause of malabsorption, which is a term used when the intestine has the ability to digest, but cannot absorb the nutrients. The medical field will tell you that Celiac disease is an illness in which the inside lining of the small intestine is damaged after eating wheat, rye, oats, or barley. It is a disease caused by intolerance to gluten. Gluten is a protein found in wheat, rye, and barley. Intolerance to gluten causes the lining of the intestine to lose its villi. It's true that gluten-containing foods release a high amount of lectins, which are irritants, but why do some people have celiac and some do not? The small intestine obviously has a greater intolerance in the people who have celiac. If you study TBA, you know that there must be one or more irritating toxins in the small intestine acting as irritants and the allergy to the food is just one of the final symptoms.

In early stages, symptoms of celiac disease may be limited to anemia and early-onset osteoporosis. In later stages of celiac disease, the following symptoms may be present: bleeding gums, dry skin, foul smelling diarrhea, bloating, weight loss, anemia, stools that stick to the toilet bowl, bone pain, bone tenderness, and soreness of lips and tongue. Celiac disease is difficult to diagnose in early stages. In later stages, the doctor will examine stool for fat, take an x-ray of the bowel, take a biopsy of the lining of the small intestine and blood tests. You can use the avoidance diet, but if you can get the intestines detoxified and rejuvenated by using classical homeopathic remedies to counteract the immune response that has developed to gluten, you can be "normal" again. A photo would show the lining of the small intestine like a piece of leather instead of a pliable mucous lining. You can imagine the digestive/absorption potential at that point.

### WHAT IS CROHN'S DISEASE?

Crohn's disease, also called ileitis or regional enteritis or colitis, is an inflammatory bowel disease (IBD), the general name for diseases that cause inflammation in the intestines. Crohn's disease is not fatal, and many people diagnosed with Crohn's are able to lead active, productive lives. Crohn's disease causes inflammation in the small intestine. Crohn's disease usually occurs in the lower part of the small intestine, but it can affect any part of the digestive tract. Any time there is inflammation of the intestine, you will face lowered digestive and absorptive potential, which means a compromise in good health.

The most common symptoms of Crohn's disease are: loss of appetite, abdominal pain, often in the lower right area, joint pain, fatigue, sores around the anal area and diarrhea. Sometimes rectal bleeding, weight loss and fever may occur. Bleeding may be serious and persistent, leading to anemia. For some people, symptoms are severe and can be debilitating, while others experience long periods of time where their symptoms are mild. This presents an obvious question about what might create flare-ups. Food is often an issue, but just as in the case of the gluten intolerance, there is some toxic factor irritating the lining of the intestine allowing for the lack of function. The most common complication of Crohn's disease is blockage of the intestine. When blockage of the intestine occurs, a patient may experience painful cramps or vomiting due to food that is not able to bypass the obstruction. Crohn's disease may also cause sores or ulcers, in the affected areas (bladder, vagina or skin).



Normal colon tissue



Crohn's Disease

Notice the tissue looks like leather.



Ulcerated colon

### ABOUT LACTOSE INTOLERANCE

Lactose intolerance is the inability to digest significant amounts of lactose, the predominant sugar of milk. This inability results from a shortage of the enzyme lactase, which is normally produced by the cells that line the small intestine. Lactase breaks down milk sugar into simpler forms that can then be absorbed into the bloodstream. When there is not enough lactase to digest the amount of lactose consumed, the results, although not usually dangerous, may be very distressing. While not all persons deficient in lactase have symptoms, those who do are considered to be lactose intolerant.

When the body is unable to digest lactose, osmotic pressure occurs in the intestine drawing water into the intestine. At the same time, intestinal bacteria feed from the undigested sugar producing acids and gas. Common symptoms include nausea, cramps, bloating, gas and diarrhea, which begin about thirty minutes to two hours after eating or drinking foods containing lactose. This is why lactose intolerance produces bloating, intestinal cramps and diarrhea. The severity of symptoms varies depending on the amount of lactose each individual can tolerate. In rare cases, children are born without the ability to produce lactase. For most people, though, lactase deficiency is a condition that develops naturally over time. It is estimated that 30 to 50 million Americans are lactose intolerant. Certain ethnic and racial populations are more widely affected than others. As many as seventy-five percent of all African Americans and American Indians and ninety percent of Asian Americans are lactose intolerant. The condition is least common among persons of northern European descent. After about the age of two years, the body begins to produce less lactase. However, many people may not experience symptoms until they are much older. Medical thinking will tell you that this intolerance can be caused by certain digestive diseases and injuries to the small intestine that reduce the amount of enzymes produced. But what caused the digestive disease that reduces the enzyme production?

### MEDICAL TESTING FOR LACTOSE INTOLERANCE

The most common tests used to measure the absorption of lactose in the digestive system are the lactose tolerance test, the hydrogen breath test, and the stool acidity test. These tests are performed on an outpatient basis at a hospital, clinic, or doctor's office. The *lactose tolerance test* begins with the individual fasting (not eating) before the test and then drinking a liquid that contains lactose. Several blood samples are taken over a two-hour period to measure the person's blood glucose (blood sugar) level, which indicates how well the body is able to digest lactose. Normally, when lactose reaches the digestive system, the lactase enzyme breaks it down into glucose and galactose. The liver then changes the galactose into glucose, which enters the bloodstream and raises the person's blood glucose level. If lactose is not completely broken down, the blood glucose level does not rise and a diagnosis of lactose intolerance is confirmed.

The *hydrogen breath* test measures the amount of hydrogen in a person's breath. Normally, very little hydrogen is detectable. However, undigested lactose in the colon is fermented by bacteria and various gases, including hydrogen, are produced. The hydrogen is absorbed from the intestines, carried through the bloodstream to the lungs, and then exhaled. In the test, the patient drinks a lactose-loaded beverage and the breath is analyzed at regular intervals. Raised levels of hydrogen in the breath indicate improper digestion of lactose. Certain foods, medications, and cigarettes can affect the accuracy of the test and should be avoided before taking it. This test is available for children and adults. The lactose tolerance and hydrogen breath tests are not given to infants and very young children who are suspected of having lactose intolerance. A large lactose load may be dangerous for the very young because they are more prone to the dehydration which can result from diarrhea caused by the lactose. If a baby or young child is experiencing symptoms of lactose intolerance, many pediatricians simply recommend changing from cow's milk to soy formula and waiting for symptoms to abate.

If necessary, a stool acidity test, which measures the amount of acid in the stool, may be given to infants and young children. Undigested lactose fermented by bacteria in the colon creates lactic acid and other short-chain fatty acids that can be detected in a stool sample. In addition, glucose may be present in the sample as a result of unabsorbed lactose in the colon.

### NUTRITION

- Chewing is necessary because what you do not chew well must be broken into smaller pieces by enzymes from the pancreas in the stomach and the small intestine. If pieces are not broken down small enough to be absorbed by the small intestine, it becomes a strain for the small intestine.
- **Digestive Enzymes** help the small intestine accomplish its task because the action of enzymes makes the small intestine able to do its job.
- Mucilaginous herbs. These are herbs with properties that help rebuild the normal **mucous lining** of the intestine. If there is pain, burning or you suspect swelling, these may help relieve that by alkalizing.
- **Marshmallow Root**
  - Slippery Elm
  - Aloe Vera Juice (high quality)



- **Antimicrobial** herbs are good for the small intestine because it is an alkaline organ and “bad” bacteria become infested in there (like HP that causes ulcers), making the intestine acid and prone to ulcers:
  - Garlic
  - Olive Leaf Extract
  - Goldenseal
  - Oregano Oil Capsules
  - Grapefruit Seed Extract
  - Oregon Grape
- **Calcium:** I believe in whole nutrients and calcium is not a whole nutrient as it has been extracted from some place and now stands alone. Secondly, I would normally say that a nutrient must be plant source and most calcium is not derived from plant sources. Calcium is considered the alkalizer, which means of all the minerals, it has the ability to alkalize the body. If you are trying to heal the small intestine, that is a primary goal. Thus a source of calcium may be of good use for at least a season. Herbs for Calcium / alkalizing the upper digestion are (if you need something more direct, use Coral Calcium):
  - Comfrey
  - Oats
  - Nettles
  - Raspberry Leaf
  - Horsetail
  - Dried Parsley(8x higher than fresh)

#### **TIME OF ACTIVITY / PAIRED ORGAN**

1 - 3 p.m. This is the time when this system is detoxifying. This information is valid in case a person has complaints at this time during the day specifically, or complaints are more apparent or severe during this time. If this is the case, it would indicate a primary weakness in this system. The paired organ for the small intestine is the heart. If the small intestine does not function well, it will take energy from the heart.

#### **EMOTION**

The emotion that correlates with the small intestine is vulnerability or gullibility. People who are small-intestine weak tend to be misled in certain areas. If you are small-intestine weak, you might be vulnerable about life, a good sales pitch, relationships, money or anything else.

#### **SUGGESTIONS TO STRENGTHEN**

- Chew food thoroughly.
- Don't drink more than four ounces with meals.
- Heed the rules of food combining because your intestine is too acid.
- Eat more raw foods.
- Make sure there are enough enzymes in the body.

#### **EVIDENCE OF WEAKNESS**

- Weak or sore quadricep or abdominis muscles
- Ridges on the fingernails
- Baldness on the top of the head (not crown alone)
- Upper lip in contrast to lower lip, meaning the lips should be about the same size, upper and lower. If the small intestine is weak, the upper lip, particularly on the sides, will be larger than the same position of the lower lip.

## SECTION 2

### DIGESTIVE / INTESTINAL

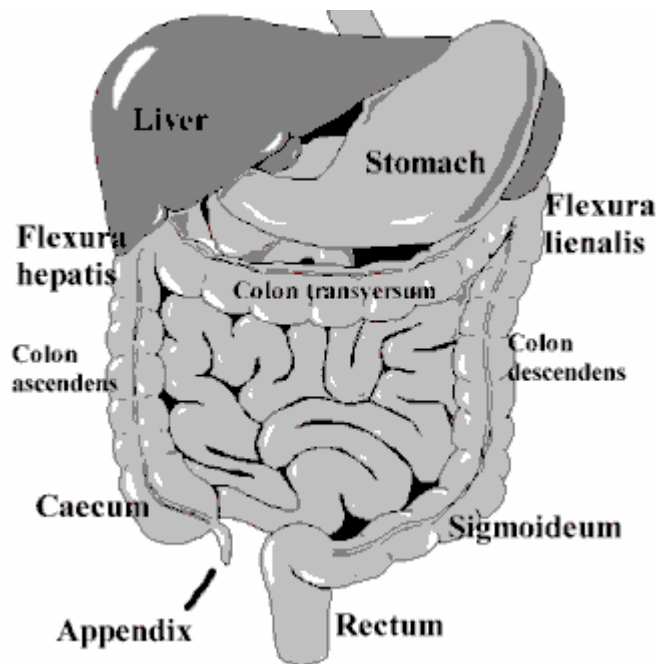
Teeth / Saliva / Stomach / Small Intestine / Pancreas / Large Intestine / Skin

#### Chapter 7

#### Large Intestine

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The large intestine was so named because its diameter is greater than that of the small intestine. The large intestine also goes by the name of bowel and colon. The contents of the small intestine must pass through the ileocecal valve in order to arrive in the cecum of the large intestine. The cecum, the first part of the intestine contains a finger-like projection called a vermiform appendix. It is made of lymphatic tissue and represents the lymphatic system in the colon. The colon is officially divided into four parts; the ascending colon is the section that moves from the hip area to the right, upper abdominal area. It makes a turn behind the liver (hepatic flexure) and the transverse colon moves across the abdomen. It again makes a turn behind the spleen (splenic flexure) and the descending colon moves down toward the left hip. The colon then makes an S-shape called the sigmoid colon and then becomes the rectum. The rectum becomes the anal canal for a few centimeters before it ends with the anus.



#### FUNCTION

The chyme that was not absorbed by the villi in the small intestine works its way to the end of the small intestine, puts pressure on the ileocecal valve and passes through into the colon. The enzymes in the small intestine made the acid contents that came from the stomach alkaline, but the contents will once again become acid in the colon because of bacterial activity in the colon. The colon has the primary task of forming and storing feces, but it also reabsorbs water, electrolytes and digestive secretions left from the small intestine. The large intestine does not secrete digestive enzymes, but contains a mucous membrane which has *goblet cells* that secrete mucous. This mucous is used to protect the lining of the intestine, keep the chyme from getting overly acid and hold feces together.

#### ABOUT PROBIOTICS

The large intestine also has a high content of friendly bacteria called flora, acidophilus or probiotics. Flora acts on the contents of the colon, neutralizing “bad” bacteria which occurs naturally in the food we eat and is passed to the colon in the chyme. These bad bacteria are supposed to be eliminated, but if too many of the “bad” bacteria stay in the colon and are not acted upon by flora (the friendly bacteria), gas (flatus) will occur. Flora also helps break down cellulose (fiber) and helps to synthesize vitamins like K, B12, thiamine and riboflavin. Acidophilus is essential to normal bowel health. Antibiotic use is the primary method of imbalance or destruction of the flora in the intestine.

While the colon is an acid organ, over acidity will disrupt the pH of the colon destroying the friendly bacteria. If the pH is too acid, the friendly bacteria can actually mutate into the “bad” bacteria.

If this were a traditional book about health, I would now go into a major sales pitch for the importance of probiotics. I don’t disagree with the importance of probiotics, but I do not believe that supplementing it is the best way to get it. The average person has anywhere from four to eleven pounds of friendly bacteria in their body. How much impact do you think it will make if you take a few probiotics or acidophillus capsules each day? I am not disputing that some people find these supplements very helpful. If you do, continue using them. The point is that if you get the true cause of the problem, the causative factor out of the body, particularly the intestine in this case, and restore pH, the friendly bacteria will reproduce naturally much faster than you could supplement it.

### **IMPORTANCE OF ELIMINATION**

Bowel elimination is essential to proper health. It is very possibly the single most important element to getting or staying healthy.

Medical science explains that whatever is regular for you is normal. If you have one bowel movement each day, that is normal for you. If you have one movement only on Sunday morning, then that must be normal for you. Consider this; some people have three bowel movements per day while some have one or fewer per week. The record that I know of is two bowel movements per year. The logic medicine teaches doesn’t make sense, if everyone is eating the same amount of food, what is happening to the excess food of the person having only one BM per week? It’s true that some people eat more than others, but essentially, we all eat twice each day, maybe more. That means the intestine is working on food and accumulates waste at least twice that day or once for each meal eaten. If you are eating and not eliminating once for each meal eaten, the waste is accumulating in the large intestine.

At the risk of being nasty in the eyes of a few, I feel that it is necessary for people to know more about the bowels. It’s just too important to skip because of the topic. The concept that all disease begins in the bowel is a pretty accepted theory in the alternative field. Better said, if the bowels never accumulated toxins all other toxins in the body would have a place to dump and we would never become ill or end in killer diseases taking away our vitality, and finally, life itself. All the systems of the body depend on the intestine’s ability to eliminate so if elimination is not occurring normally, the other systems back up. There is much information on bowel cleansing, diseases, and conditions of the bowel. I understand that most people consider matters of the bowel to be gross, but there is no need to think that way. It’s going to scare you, but if you consider that everything that is being eliminated through the bowels went through your mouth first, you are forced to rethink the horribleness of it. If it’s nasty when it comes out, it was nasty when it went in. It might have been dolled up with sweeteners, colors, glues and other toxic elements to make you think it was pretty and tasty, but the body will invariably dissect it and spit it back out in its primitive form. That would be the nasty, smelly, “just turn the fan on and walk away” form. If you want to die like the rest of the world, do what they are doing- nothing. If you want to be healthier, full of energy and vitality, free of wrinkles, hair loss, eye problems, hearing loss and other disabilities, you need to keep the bowels healthy. It’s not an option. Unhealthy bowels are the first stage of disease and create a host for bacteria, virus, parasites, fungus, and all disease, including genetic weaknesses to thrive.

### **FACTS ABOUT BOWEL MOVEMENTS**

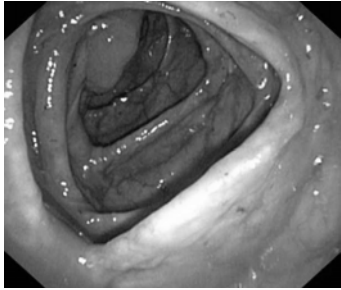
Ninety-five percent of everything you eat should be eliminated. It is rather impossible to estimate this ratio without doing a literal weight on everything coming in and out of the system. I might say the bowels are not nasty to talk about, but I am not going that far. So we start by saying that a person should have a bowel movement at least once per meal eaten. That is the absolute minimum. This does not mean regular bowel movements right after you eat, per se. People who have movements immediately after eating tend to have a very congested digestive system. Although they think they are regular, this generally points to the fact that the system is so full of garbage, so backed up with undigested food, that the body must rid itself of some waste before it can accommodate the new intake. You will generally note that the people who eliminate right after a meal have a rather large belly on them. This is a physical manifestation that the inside is full of something it should not be. Can you guess what that is? Did you know that the average American accumulates one pound of sludge in their colon each year? That is average, so some people have much more. Elvis’s colon weighed seventy-five pounds and John Wayne was said to have been similar. That tummy you have been trying to get rid of isn’t fat my friend, it is undigested waste that never found its way out of your colon because you are ingesting too much waste for the body to process. Regular is at least once per meal, preferably thirty to ninety minutes after eating.

The average person today has a bowel movement anywhere between the size of a quarter and a ribbon. The stool should be about the same and should not be hard and difficult to pass. If it is, you probably have a dehydration

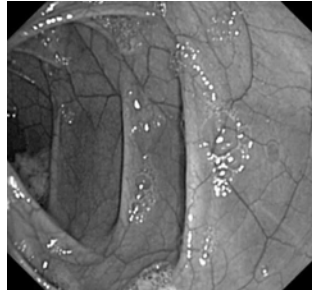
problem and would benefit from drinking a lot more water. The stool should also float if there is enough fiber in it. If it does not, there are too many toxins, meaning the food you are eating is junk food, or there is not enough fiber in what you are eating. If the stool comes out in little pieces rather than long strands, this is a sign of insufficient fiber or low transit time. The waste is spending too much time in your intestine. The color of the stool will vary on the food eaten, so that cannot be described. If the stool smells real bad, this is a sign that there are too many toxins being emitted and that transit time is too slow. A bowel movement is not going to smell nice, but it should not be real offensive and it certainly shouldn't take the wall paper off the wall or fog the mirror. If the digestive system does not move all its indigested contents through in approximately eighteen hours, it will rot in the intestine. This is what creates gas and a bad smelling stool. That's right, if you have gas, you have too much fermentation going on. Remember those "bad" bacteria? They are multiplying too fast and the good guys are dying off if the odor is offensive.

When the large intestine does not move properly because it lacks peristalsis (muscle movement), magnesium, bile, bacteria (acidophilus), water, fiber or any other essential nutrient, the contents back up, harden and become poisonous to the body. The toxins first go through the intestine walls to poison the surrounding organs (reproductive system and bladder). This is called autotoxemia or autointoxication. As the toxins increase, they get in the blood, and your body circulates them throughout your body. Your tissues are now being fed with toxic waste. As toxins get in the blood and feed the muscles, the muscles become too acidic, called fibromyalgia. When it accumulates in your heart valves you have circulation problems and when it reaches the brain, you don't think properly, you get depressed, lose memory and all kinds of things that you don't want. It is as horrible as it sounds, but as you cannot see the poison, you ignore it, or you don't know what to do about it. A lot of brown immediately around the pupil of the eye is an indication of bowel build up. Of course, that belly you can't get rid of is a guaranteed sign as well. You will find that anyone with a backed up bowel will have tendencies towards hiatal hernias, heart burn, reflux, burping and other related symptoms including lack of digestion, especially of proteins. Clean the large intestine and these areas will normalize again. The large intestine is nothing but a large muscle. The best way to clean it is by eating correctly and taking herbal supplements that promote health and cleanliness. Drink plenty of water, exercise and you've got it made. If you already have a history of symptoms, you may need to do a colon cleanse involving fasting and colemas (colonics that can be done at home). Dr. Bernard Jensen has a book with great information on this topic called, *Tissue Cleansing Through Bowel Management*. It includes instructions on how to build your own colemas system. This book also contains photos of what the bowel is supposed to look like and photos of how it becomes when the colon prolapses, balloons and becomes diseased.

## NORMAL (healthy) PHOTOS OF THE COLON



Ascending colon  
with ileocecal valve at bottom

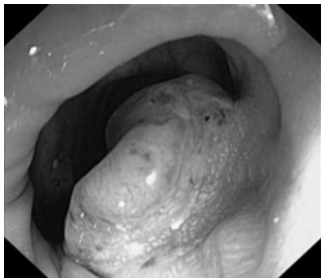
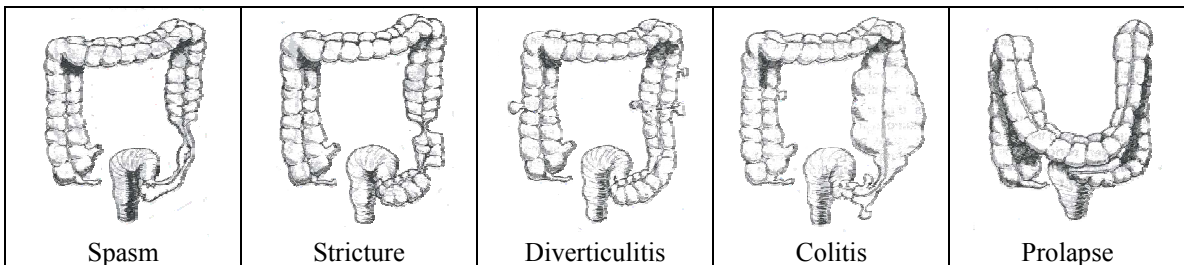


Hepatic flexure of colon

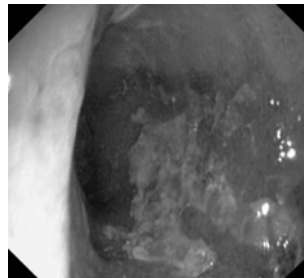


Sigmoid colon

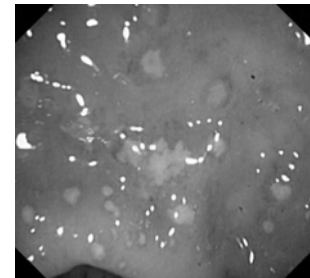
## DISEASED PHOTOS OF THE COLON



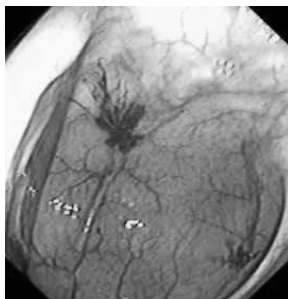
Polyp-tubular adenoma



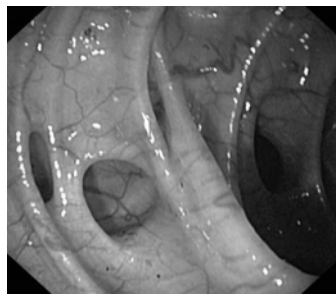
Ischaemic colitis



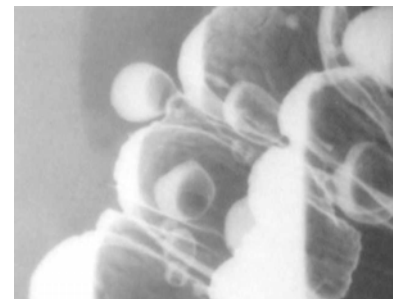
Infectious Colitis



Angiodysplasia  
Descriptive word for internal bleeding.



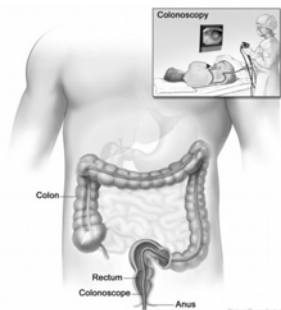
Diverticulitis  
Notice the pockets formed in the lining.



X-ray of diverticulitis  
Look for round pockets hanging from colon.

## WHAT IS A COLONOSCOPY?

This is one of the primary methods used by medicine to identify problems in the colon. You are put on special foods for a few days before the procedure, instructed to take a laxative type product to clean out the colon and fast the day before you come in. As the photo illustrates, they “gently” send a long tube about the diameter of your finger into your rectum and all the way to the other side of the colon. That is six to eight feet, depending on your size. All this so that a label can be placed on the cause of your complaints. Irritable Bowel Syndrome, Chron’s Disease, Colitis, Diverticulitis, Polyps, Cancer, etc. No matter which name they come back with, if you are going to deal with the issue naturally, you are going to follow pretty much the same protocol so it doesn’t really do much good to go through this humiliating process. Unless you want to be cut on, that is.



## SKIN AND THE LARGE INTESTINE

The skin is the largest organ of the body. The skin is a protective covering that prevents many harmful substances from entering the body. Why has the skin been mentioned in the large intestine section? While the skin has nothing to do with digestion, the skin is an organ that will reflect the health of the intestine, particularly the colon. In other words, if the colon is healthy, the skin will not have problems. When the colon is not in good health, the waste products are transferred to other elimination channels. Any waste that can be converted to carbon dioxide will be excreted by the lungs. Waste which can be converted to a form that the kidneys can remove will pass through the urine (if the liver can convert it) and the rest is transferred to the skin. Even though the body has back-up systems for almost everything, the majority of the waste will have no means of evacuation other than the colon, so cleansing is critical. Therefore, it is safe to assume that people with skin conditions have intestinal imbalance. It is foolish to treat the skin on a local basis when the cause is a deeper issue. It isn’t just an issue of colon elimination now. The acid (pH) balance must be correct, the bacteria (acidophillus/probiotics) requires balance, etc. If you have trouble with hair, skin or nails, it is often a sign that you have intestinal issues. Everything from the lines and ridges on the fingernails to the lack of hair or excess amount of hair in areas that should not have hair are all signs of intestinal imbalance ... keep them clean and healthy.

Sweating is not just for cooling your skin; it also opens your pores and excretes toxins. This is one reason why people who use deodorants and antiperspirant chemicals on their skin develop breast cancer, liver cancer or other forms of cancer; these products block the body's ability to open up and excrete toxic wastes through the skin. Sweating is good for you, even under the arm.

Conventional doctors who do not understand holistic health only look at what's happening locally; they think bacteria in the skin cause acne. We all have bacteria on and in our skin, so the presence of bacteria isn't the cause of acne. Do you think clear-skinned people have sterilized their facial skin? Hardly. If you are suffering from acne, try going dairy-free for thirty days and see for yourself just how much your acne is reduced or eliminated.

If you see somebody who appears to be aging rapidly, such as a person who smokes cigarettes, you are witnessing the stiffening or hardening of the fibrous connective tissue in their skin. At the same time, they are losing physiological efficiency in their kidneys and liver, reducing their ability to remove toxins from the blood. They are losing metabolic process efficiencies in their large intestine, small intestine, the brain, the heart and all the organs of the body, and the skin reflects all of this. Looking at your skin is actually a very good way to get a quick glimpse at the overall health of not only your digestive tract and your large intestine, but your entire body.

## CLEANSING THE LARGE INTESTINE

With what you have read so far, it should be easy to believe just how important, or more accurately, imperative, it is to have health of the intestine. Cleanliness of all parts of the body is subject to cleanliness of the intestine. People who seek therapies for specific health issues will find a frustrating outcome if they do not begin with colon cleansing. It has been said that all disease begins in the colon. To keep it clean and vibrant is to prevent other health challenges. The upper part of the intestine is responsible to take in the nutrition that will be needed to heal and repair tissue, so health in that area seems pretty reasonable. The lower intestine is where all the waste matter accumulates awaiting its turn for evacuation. It’s your own personal outhouse. People think that if they are having some pattern of bowel movements, their intestine is healthy. Much of the folly in this basic line of thinking has already been covered. It would make it much easier if we had some sort of gauge that indicated the need for cleansing, but we don’t have a “full of waste” gauge. Cleansing the intestine is imperative to healing or the ability to remain healthy. We expect to clean our homes at least once each year, we wash our cars, take showers and baths,

hunters clean their weapons, even cats clean themselves continuously. In all areas of life, we consider cleaning. Would it not seem reasonable to clean the inside of the body?

No matter how good your diet is, you need colon cleansing. I teach that being vegetarian and eating perfectly healthy all the time is not required, nor is it the main component to getting healthy. Waste material in the intestine is from anything that the body cannot use, not just junk food. It doesn't matter how healthy or organic a food is, if your body cannot digest, absorb or metabolize it, it becomes waste. Eating a strict healthy diet is of benefit primarily because it keeps the body from being introduced to more toxins that will need cleansing later. You cannot avoid all toxins, but you can minimize your exposure. You now know that keeping the intestine clean is one of your main priorities in getting well or staying well. The better the diet, the less you have to cleanse later, or shall we say, the less often.

This topic is specifically covered in detail at [www.getwellstaywellathome.com](http://www.getwellstaywellathome.com), (particularly Step 4) but the following points have been summarized here:

- Cleansing Supplements
- Fasting
- Colon Flushing
- Juicing

### CLEANSING SUPPLEMENTS

Part of me hates to list this area of the cleanse process, particularly as the first option. I have a bad taste for any health concept that is built around sales of product. As a whole, alternative medicine has become dominant in sales of product rather than correction of the cause. I created my own supplement line after years of disappointment in what I could find on the market. As a company owner, it would suit my financial interest to have as many supplements available as possible in order to make the most in sales. But if you check out the Get Well, Stay Well Supplement line ([gwsathome.com](http://gwsathome.com)), you will find that we only offer basic products, primarily for cleansing of the intestines. If there was a way around the use of supplements, I would promote it. There are options to fast, do colonics, take castor oil or drink prune juice or Epson salt in water as home cleansing remedies. You might get an incredible dose of loose bowels with these, but they aren't going to clean the waste out of the intestine, which is really what defines a bowel cleanse. There simply isn't a way that is effective enough to get the job done without some supplemental help. The need for supplements to promote flushing, scraping and overall evacuation is one reason this is listed first.

The second is that most people have a hard time doing a full "spring cleaning" of the intestine. That means taking the colon cleansing products every few hours of each day, fasting for seven to eleven days, taking olive oil and lemon juice at night, and using colemas or coffee enemas once or twice a day to flush the waste out. As a civilized, fast-paced society, we want it fast and easy. So option "easy" is using the GWSW products mentioned below to try and induce a descent cleaning. Use the products as directed and see if it is enough to help your condition or complaint. If your condition is chronic, I would certainly consider doing the full "spring cleaning" elimination program, which basically adds fasting and colemas (explained next). If you choose to do the full spring cleaning, the following supplement schedule is still recommended in order to initiate the best results. Please refer to the website [www.gwsathome.com](http://www.gwsathome.com) for the latest details about cleansing and the spring cleaning program (Step 4).

- Bowel Stimulant works to get the intestinal muscle movement (peristalsis) back in shape. This formula also helps flush toxins from the liver and gallbladder. Use it as directed on the bottle, which indicates you take one capsule with dinner. The next day if you have not moved the bowels at a maximum rate, yet short of diarrhea, increase the dosage by one capsule. If you are going to fast while doing your cleanse, you still want to take the Bowel Stimulant. Take it a few evenings in a row before you begin your fast and see how many it takes for your bowels to move as much as possible without getting diarrhea. Do not take this if you have internal bleeding or blood in the stool.
- Intestinal Cleanser 1 (IC-1) is a loose powder that swells when mixed with water to scrub the intestine as it moves through it. You want to take a scoop of the IC-1 and mix it (best if shaken, not stirred) in four to six ounces of apple juice (diabetics might use tomato juice). Repeat this process every two to three hours. The apple juice supplies some glucose for those who might have low blood sugar and adds pectin to the program, which is good at helping to loosen the waste from the intestinal wall.
- Intestinal Cleanser 2 (IC-2) supplies the ingredients needed to help absorb the toxins and poisons. On average, you want to take two capsules of IC-2 with every IC-1 drink that you take.
- Water. Lots of water. Try to drink a gallon of water a day in if you can.

## BASIC BOWEL CLEANSING ENHANCEMENTS

Fasting and colemas really enhance the action of a cleanse. More about why that is true can be found in the applicable pages that follow. If you do not feel you can cleanse that seriously, consider adding one or more of the following options to the cleansing supplements mentioned above.

- **Alkaline flush:** You can make the solution known as the Alkaline flush and use that as your drinking water to help alkalize body tissue and add to your overall cleansing process. Most diseases thrive in an acid environment. The immune system remains strong when the body is in an alkaline state, which requires a diet of eighty percent alkaline foods and twenty percent acid foods. Most of us aren't able to keep a diet that balanced, so we need to re-establish that balance periodically. Remaining alkaline is one of the best preventative measures for continued overall health. Calcium is the body's natural alkalizer. The calcium in egg shells would be considered inorganic (not from a plant source, thus not healthy) but when it interacts with lemon juice, it is converted to a usable ion pattern –which is better than most calcium supplements. DIRECTIONS: Place a couple of farm fresh, organic eggs in a small bowl. Squeeze enough fresh lemon juice to cover the eggs. If you don't like lemon juice, you can use Bragg's apple cider vinegar. Leave the eggs soaking in the lemon juice without a lid at room temperature for twelve to twenty-four hours. Remove the eggs and cook them or discard them. The lemon has leached the calcium right out of the egg shells and converted it to a form of bioavailable calcium which we will now use to alkalize the body. Start with one gallon of steam distilled water. It has an affinity for attracting inorganic minerals that should not be in the body. Add as much of the lemon/calcium solution as you can without making the water so strong that you cannot drink it comfortably. You may also add just enough dark, grade-A maple syrup to take the tart out of the water and supply minerals that serve to give you energy throughout the day. Add as much of the hottest, high quality cayenne pepper as you can. The hotter the heating units (HU), the better the results. Remember that you will be drinking this all day, so start with just a little, perhaps a quarter of a teaspoon and increase as you know you are able. The cayenne works to clean your vascular (circulatory) system and allow the calcium ions to do their job. Your cleansing material is now ready. You do not have to fast to get some results, but the flush will work seventy-five percent better if you do. If the flush does not make the body alkaline enough (verifiable with pH paper testing) make a quart of water with one teaspoon of sea salt and one teaspoon of baking soda in it. Drink one-half cup of that solution once or twice each day until the body reaches the pH level desired.
- **Gallstone Flush:** Most people have gallstones. This flush will often work even if you have not fasted, but added to the cleansing supplements and alkaline flush, it should work wonderfully. Do not assume that if your gallbladder has been removed that you do not have stones. Stones form in the liver if the gallbladder is not there. This is a very highly recommended step.
  - Make sure you do some mild exercise the day of your flush to move the blood.
  - Take one-fourth to one-half cup of extra virgin olive oil (you may chase it with lemon juice if you desire, it gets the oil taste out of the mouth) and one to two tablespoons of Epsom salt mixed in warm water about two hours before you go to bed. This helps to release gallstones, dissolve toxic particles and flush all your intestinal valves.
- There should be no pain passing gallstones; they generally pass through the bowels in the morning. Look for brown or green (sometimes black) round stones about the size of your fingernails. Sometimes the body dissolves them, so you may not see anything.

## FASTING

Fasting is the oldest form of health care. Modern thinking has developed this mentality that when we are sick, eating produces strength. But nothing is further from the truth. If a sick person will fast, more energy will be available to fight the illness because the body is relieved from the labor of digesting foods. The energy required for digesting food is great, particularly animal fats and proteins (including chicken soup.) We have been advised to avoid swimming after eating or suffer cramps in the water. Muscles in use require energy, which produces lactic acid. Lactic acid is also produced in the process of digestion. Combined, these can be overwhelming to the muscles. Another example is during festivals like Thanksgiving where people eat like there's no tomorrow. After a huge amount of food, do you feel energized or tired? You feel tired because the body is busy using all of its energy for digestion. If you eat heavily before sleep you will wake up feeling tired because your body cannot go into rest mode while it is busy digesting. Digesting food requires tremendous energy.

When you fast, the freed energy can then be directed towards the elimination of toxins in the body. The process of fasting normalizes glandular, metabolic and nervous-system functions; speeding up the elimination of morbid



accumulations, toxic wastes and dead cells; accelerating new cell and tissue generation and enhancing cell-oxygenation. Unfortunately, only animals and babies retain their natural instinct when sick and refuse food.

### **WHAT IS FASTING?**

Fasting commences within the first twelve to twenty-four hours of the fast. A fast does not chemically begin until the carbohydrate stores in the body begin to be used as an energy source. The fast will continue as long as fat and carbohydrate stores are used for energy, as opposed to protein stores. Once protein stores begin to be depleted for energy, a person is technically starving. You do not want to reach this point as it is unhealthy and will result in loss of muscle mass. A fast is defined by the lack of digestive response. Lack of chewing is not fasting. Some believe that if they blend foods and drink them, they are fasting. Technically, fasting means nothing is consumed except for water, perhaps mixed with a little unsweetened apple or grape juice. These do not require digestion, particularly the apple juice, so the technicality of the fast is preserved. There are many methods of fasting. Some promote a fresh vegetable juice fast. Various methods will be discussed as we proceed.

### **FASTING INDUCES DETOXIFICATION**

Detoxification is a normal body process of eliminating or neutralizing toxins through the colon, liver, kidneys, lungs, lymph glands, and skin. This process is precipitated by fasting because when food is no longer entering the body, the body turns to fat reserves for energy. These fat reserves were created when excess glucose and carbohydrates were not used for energy or growth, not excreted, and therefore converted into fat. When the fat reserves are used for energy during a fast, it releases the chemicals from the fatty acids into the system which are then eliminated through the mentioned elimination channels. Chemicals not found in food but absorbed from one's environment, such as DDT, novocain (dentist and epidurals), many vaccine preservatives, etc., are stored in fat reserves, which can be released during a fast. One fasting advocate tested his own urine, feces and sweat during an extended fast and found traces of DDT in each. Keep in mind that the body will always use glucose sources for energy first, then fat stores when there is no longer glucose available. That means that for your body to release any of the toxins stored in fat, you have to fast long enough to use up the glucose reserves. That takes one to three days for most people. We will discuss how long one should fast shortly.

During a fast, energy is diverted away from the digestive system due to its lack of use and towards the metabolism and immune system. The healing process during a fast is precipitated by the body's search for energy sources. Abnormal growths within the body (polyps, cysts, fatty tumors and malignant tumors), do not have the full support of the body's supplies and therefore are more susceptible to autolysis. The liver is in charge of converting fats. This is called autolysis or gluconeogenesis. When this fat utilization occurs, free fatty acids are released into the blood stream and are used by the liver for energy. The less one eats, the more the body turns to these stored fats and creates ketones, the accumulation of which is referred to as ketosis.

Dietary ketosis is often confused with Ketoacidosis, a life-threatening condition most often associated with uncontrolled insulin-deficient Type 1 diabetes. In Type 1 diabetes, a lack of insulin leads to a toxic build-up of blood glucose and an excessive break-down of fat and muscle tissue. Ketoacidosis doesn't occur in individuals who have even a small amount of insulin, whether from natural production or (if diabetic) artificially administered. In fact, far from causing health problems, dietary ketosis for intentional weight loss may be beneficial for health, as it can produce a range of benefits, such as: rapid weight loss, decreased hunger and fewer food-cravings, improved mood, increased energy and, providing protein-intake is adequate, protection of lean muscle tissue.

When we burn a larger amount of fat than is immediately needed for energy, the excess ketones are discarded in the urine. Volatile ketones (such as acetone) can be expelled through the lungs. Diabetics are sometimes mistaken for being drunk by the odor on their breath. Ketones give the breath a sickly, fruity odor like nail-varnish remover or pear-drops. If you get breath like this, you need more complex carbohydrates in your diet. If you do not add carbohydrates, you will probably lose weight very quickly, which might be your goal, but it will soon make the blood very acid and this can be very dangerous. You can buy ketone test strips for testing urine and keep your levels monitored if you wish to maximize metabolic success without crossing into a health hazard.

In addition, production of protein for replacement of damaged cells (protein synthesis) occurs more efficiently because fewer "mistakes" are made by the DNA/RNA genetic controls which govern this process. A higher efficiency in protein synthesis results in healthier cells, tissues and organs. This is one reason why animals stop eating when they are wounded, and why humans lose hunger during influenza. Hunger has been proven absent in illnesses such as gastritis, tonsillitis and colds. When the body loses hunger, there is a reason. Generally speaking, listen, don't eat! Not even chicken soup. Your body is trying to heal. We think we need food for energy to grow, but did you know that growth hormones are also released during a fast, due to the greater efficiency in hormone production?

## SCIENCE OF FASTING

The most scientifically proven advantage to fasting is the feeling of rejuvenation and extended life expectancy. The surest way to increase the life span is by cutting down the amount of food eaten, which is interesting since one of the signs of success is lots of food. Part of this phenomenon is caused by a number of the benefits mentioned above. A slower metabolic rate, more efficient protein production, an improved immune system, and the increased production of hormones contributes to this long-term benefit of fasting. In addition to the Human Growth Hormone that is released more frequently during a fast, an anti-aging hormone is also produced more efficiently. The only reliable way to extend the lifespan of a mammal is under-nutrition without malnutrition. A study was performed on earthworms that demonstrated the extension of life due to fasting. The experiment was performed in the 1930s by isolating one worm and putting it on a cycle of fasting and feeding. The isolated worm outlasted its relatives by nineteen generations, while still maintaining its youthful physiological traits. The worm was able to survive on its own tissue for months. Once the size of the worm began to decrease, the scientists would resume feeding it at which point it showed great vigor and energy. The life-span extension of these worms was the equivalent of keeping a man alive for 600 to 700 years. I don't know if it means anything, but after Noah's flood in the Bible, man was allowed to eat many foods which were previously forbidden. Most of the meat delicacies in the world today are foods that were on that forbidden list, and still are for Jews.

Dr. Clive McCay, at Cornell University took laboratory rats and cut their food intake by half. It doubled their life span. Another study at the University of Texas involving three groups of rats is also interesting to note. One group eats as much as it wants, a second has its food intake cut by more than half, and the third eats as much as it wants but its protein intake was cut in half. After more than two years, only thirteen percent of the rats in the first group are still alive. Of the second group which has its food intake cut by more than half, ninety-seven percent are still alive. The third group sees only half remaining. The message is simple. Eat less. Live longer.

## FASTING TO RESOLVE ADDICTIONS

Most people are surprised at how easy it is to quit smoking or drinking with the help of fasting. Addictions are signs that we have lost awareness of ourselves in terms of our ability to process feelings. Addictions are simply methods of covering up areas we don't know how to deal with. It is often subconscious, so we aren't even aware of what our "issues" are. This is part of being unaware of ourselves. When I say the word addiction, you probably think of things like alcohol, cocaine, nicotine and caffeine, but food, work, the drive to make money, sex (pornography), or anything that we have a hard time controlling our desire for is an addiction. It is this very attribute that gives fasting a spiritual nature. Modern diets are addictions to many people. The addiction is often to yummy foods, which are actually artificial colors, preservatives and additives. Fasting will often shorten the time it takes for an individual to make the transition from a modern diet and lifestyle to a healthier diet. People say that after fasting, healthy foods taste better, they are drawn to them and they lack desire for some of the junk they previously craved. Why? The awareness has begun to return. The body is able to communicate better; you can once again be intuitive with your body. It is extremely counter productive to have blood sugar issues when a person already has addictions, so be sure to choose the kind of fast that will keep blood sugar stable if success is desired (generally fruit juice fast).

## WHAT IS THE BEST FAST?

According to the purists, fasting means only water - a juice fast is not a real fast. The religious purists assume that Jesus did a water fast, but there is no way to prove this. The Swedish Dr. Ragnar Berg, long considered an authority on nutrition and biochemistry stated, "During fasting, the body burns up and excretes huge amounts of accumulated waste. We can help this process by drinking alkaline juices instead of water. Juice fasting is therefore the very best form of fasting." Furthermore, certain herbal combinations cleanse the entire gastro-intestinal tract; assure the elimination of toxins and the balancing of the entire body.

Most people have blood sugar imbalances (hypoglycemic tendencies). It is unproductive and even counterproductive to create blood sugar imbalances in the body, both on a physical, mental and emotional level. For this reason, juice fasting is both gentler on the system and easier on the mind. In a juice fast, the body is not starved of nutrients. Spending time taking in juices, herbal cleansing powders and because your taste buds are being satisfied by the juice, a juice fast feels less frugal than a water fast. The juice has an alkalizing effect on the blood, which reduces any symptoms of detoxification. But there are fruit-juice and vegetable-juice fasts. The fruit-juice fast is going to be more effective in detoxification, particularly if you use organic, unsweetened apple juice. Those who have issues with apple juice can use organic, unsweetened grape juice (Kedem in the glass bottle is the absolute best), but apple juice contains pectin, an enzyme which induces further detoxification of the liver, gallbladder and even the stomach and small intestine. Both of these fruits are low glycemic fruits, which mean they don't have a high reaction to insulin response; i.e., your blood sugar doesn't go all over the place. A fruit juice fast should contain no concentrations of juice, but a mixture of juice and water at a 50/50 ratio or more in favor of water. If the body is already weak, it is wisest to begin a vegetable juice fast rather than a fruit juice fast. While fruits have

cleansing attributes, vegetables have more building attributes. Drinking freshly made vegetable juice allows a person who is weak to fast for short terms and gain the effects of fasting without creating further weakness. Carrots are the typical staple item in a vegetable juice fast. Any juicer will work to make your juice, but the juice needs to be used no more than 20 minutes after making it or it begins to lose essential nutritional components. The only exception might be the Greens Plus Juicer as it claims to keep nutrients for much longer.

### **HOW LONG SHOULD A FAST LAST?**

Fasting should not continue if the body begins to eat its own muscle (often evident if extreme hunger pains occur), ketosis becomes a problem or there is mental impairment. You should always begin with a short fast. One day is a good start. If you feel stress at the very thought of fasting, begin by simply eliminating an important food group from your diet. This process prepares the mind for a day with no food. Once you know you are fine with one day, try to go three days. Some of the experts in cleansing (like Dr. Bernard Jensen) said that a seven day fast (with added cleansing supplements) was required for the body to successfully eliminate toxic mucosa linings. You need to build yourself to this level of fasting. There are a variety of fast options, each targeting different elements in the body available at [www.gwsathome.com](http://www.gwsathome.com). The final point that should remain in your mind from all of this information is that fasting is required to cleanse the body and cleansing is a critical component to wellness, quality health and longevity.

### **WHEN IS FASTING HARMFUL?**

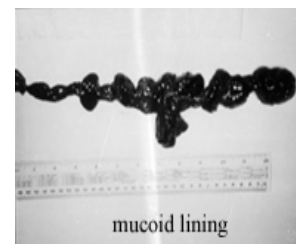
Fasting should not be considered without professional supervision if a person is pregnant, nursing, has eating disorders, or is excessively thin or malnourished.

### **HOW TO BREAK A FAST**

The greatest benefit may be lost, followed by harmful after effects, if the fast is not broken in the right way. George Bernard Shaw said, "Any fool can fast, but it takes a wise man to break a fast properly." In fact, the best effects of a fast depend upon the dietetic management after it is broken. The longer the fast, the more care must be taken in breaking it. Raw fruit and vegetables should be the order of the next three days. If you need something more, a boiled or baked potato without butter can be introduced on the second and third day. The greatest danger lies in eating too frequently and too much at a time. After a long fast the digestive organs are in a condition of complete inactivity, and to overload them suddenly with a large amount of food may provoke acute attacks of indigestion and produce many other kinds of serious disturbances. The organs must be trained to return to normal activity gradually, beginning with very small quantities of light food.

### **COLON FLUSHING WITH WATER**

No matter what the diet, the colon develops something called mucus linings, or mucoid plaque. "I coined the term mucoid plaque, meaning a film of mucus, to describe the unhealthy accumulation of abnormal mucous matter on the walls of the intestines. Conventional medicine knows this as a layering of mucin or glycoproteins (made up of twenty percent amino acids and fifty percent carbohydrates), which are naturally and appropriately secreted by intestines as protection from acids and toxins." (What is Mucoid Plaque, by Richard Anderson) Dr. Bernard Jensen was one of the first people to document this toxic waste in his book, *Tissue Cleansing Through Bowel Management*.



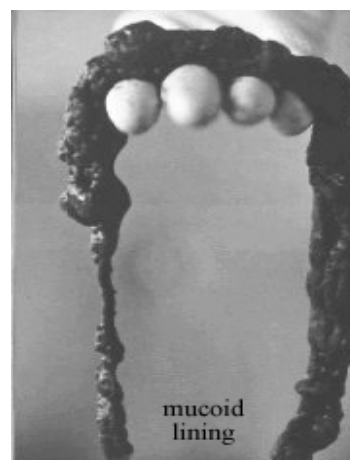
These linings are the main reason the body will become ill at some point. Remember, all disease begins in the colon. So much of the food eaten simply was not designed to be in the human body. I don't promote that a vegetarian diet is the best for everyone, but meat and dairy are foods that the human intestine were not created or designed to deal with. Animals in nature that eat meat as a staple in their diets have very short colons. Humans have a colon that is six to eight feet long. But I stated that no matter what the diet, linings will develop. The reason for this is that food must be completely digested or the body treats that food like a foreign substance, even like a toxin depending on your inability to absorb and metabolize it. Overall, the healthier you eat, the fewer linings you will have and you will not need to do colon flushing as often.

We assume that when we eat food, the body extracts the nutrients it can and the rest is sent to the colon where it is passed when we have a bowel movement. We have discussed that one bowel movement per meal is healthy, and should be considered regular. But regular still does not predict that the intestine is actually passing all of the waste material. When you eat something the body is not fully able to digest, the body also becomes confused with how to eliminate properly. At least ninety-five percent of what you eat is supposed to be moved out as waste. The only thing the body takes are the nutrients and only five percent of healthy fruits and vegetables is nutrition, the rest is

pulp and fiber, which remains in the intestine as waste. Imagine what percent of unhealthy foods needs to be passed.....99.5%? Now suppose your body has not been passing the entire contents of the waste you have been consuming. This percent begins to rot and putrefy along the walls of your intestine. Not just your large intestine, it forms in your small intestine as well. And there are over twenty feet of it.

The body considers this un-passed waste as toxic material that will be absorbed into the main circulation, which means an eventual threat to health. The defense is to produce mucous and place it as a protective covering around the toxic waste. Over time, you get more and more of this and it literally goes from putrefied to petrified. These are referred to as mucoid linings - mucus formed as a response to toxins which hardens into a rubbery lining. Many of the old linings that people pass are literally as hard as tire rubber. People can't cut them with a knife. So when I say petrified, I mean petrified. All this started with innocent undigested food, which might have been assumed good for you. I have supplied a few photos so that you might understand why you feel terrible, and why disease can so easily take over a body. It's no different than putting a little sugar, salt and flour in your gas tank every time you fill the car and then wondering why you lose performance. The car starts to sputter and stall and eventually just shuts down the motor. When you take the motor apart, you find all this gunk and it seems perfectly reasonable that the engine would no longer run.

We understand why a motor needs cleaning and maintenance, yet we assume our organic, living, biological bodies are unstoppable. Why do we assume our body is different?



There are great products on the market that help the body flush waste material from the colon and gallbladder and all kinds of reported places. Some help the body eliminate parasites or infection or candida. But all of these parasites, candidas and other toxins are only there, only an issue, because you have linings that allow your intestine to host them. Minor cleanses are great, but nothing is going to clean you out like a water flush, and even these are of little benefit when compared to what your body will release while on a fast and taking cleansing formulas along with your water flush. Do you have to do water flushing to be healthy? No. Many people have lived long lives without them. But if you want to have great quality of life, it is highly recommended. If you don't eat a real healthy diet, you should very much consider it. If you are on health programs that just don't seem to be getting you well, or you require lots of supplements to get you by, you can pretty much assume you have a lot of linings that need to be eliminated.

You should know my motto by the third book, "How was it intended to be?" With this concept driving my search for a solution, I used to say that if we were designed to have a colonic, we would have been designed with a faucet on our hind end. But then, I also believe one can learn from nature. From time to time, a heron will suck up a beak full of water, twist its neck around and insert the beak into its own anus, squirting the water deep into its bowels to flush out the putrid debris and other residue from its fish-based diet. So perhaps we should consider the benefits of flushing the colon with water. Add to all of this the fact that just about every disease you can think of has been either reversed, halted or greatly decreased by doing colon flushes. And if you take in all of the information presented, it just plain makes sense, particularly since most people don't follow the originally created diet.

### **FLUSHING THE COLON WITH AN ENEMA**

An enema is simple to do. You can buy a hot water bottle at most corner drug stores that comes with approximately a six-foot hose attachment. The bottle comes with attachments for douching and enemas or can be used as a simple hot water bottle. For use as an enema, the hose is screwed into the hot water bottle and the enema tip to the other end of the hose. The enema tip is about the diameter of a pen (this is smaller than a normal bowel movement), so insertion of this tip into the anus (about two inches after lubricating with olive oil) isn't as assaultive as it might sound. The psychological aspect is the only part that is hard



for some people. Enemas are of most benefit when done with coffee rather than water. An enema will only flush the last part of the colon, not the entire colon and certainly not the small intestine. The coffee enema does initiate liver and/or gallbladder secretions, which will have some cleansing effect on the entire intestine, but there is very little benefit to the overall intestinal flush with an enema. Basically, an enema means you will be inserting a hollow tip into the anus so the solution is delivered past the anal muscle into the rectum. You would lie on your back or on your side and allow 1-4 cups of solution to run into the bowel at gravity fed speed. You hold the solution in the colon as long as possible. When unable to hold it anymore, you get on the toilet and release it.

## **DIRECTIONS FOR MAKING AND USING A COFFEE ENEMA**

A coffee enema is one of the most effective methods of initiating bile production and flushing of the liver. The elements of coffee in enema form (theobromine, theophylline and caffeine) are absorbed in the hemorrhoid vein and taken up the portal vein, which serve the liver directly. Drinking coffee does not have the same effect. Enemas are often needed to assist the body in elimination of toxins from the liver, the body's natural detoxification organ. Headaches, spontaneous sweats, bloating and healing crisis are all signs of liver congestion which would probably benefit from a coffee enema. Make one to four cups of brewed coffee (organic if possible), but never use instant coffee. Reduce the brewed coffee to a temperature that will not hurt you by adding a little cold water. Test the temperature on your wrist. It should be warm enough to relax the intestinal muscles, but not hot enough to harm the mucous membranes of the intestine. Place the solution in an enema bag. Hang the enema up above the level that you will be using it, making sure the application tip will reach the location it will be needed. The solution is delivered into the colon by gravity. The higher you place it, the faster the solution will travel. You will want a slow traveling speed at first, but this can also be regulated by a valve on the enema hose. Open the valve slowly to let the air out. When the coffee reaches the tip, close the valve.

Position yourself in a comfortable spot. It is most effective to lie on your right side (rather than on your back) and bring the knees about half way to the chest. Lying on the bathroom rug is most common. Application of your first enema in a bath tub is often a safe precaution if you are not sure of your retention abilities. You will be rather unhappy if you get coffee or waste all over the floor. Once positioned, lubricate the end of the enema tip with some olive oil and insert the end of the tube about two inches into the anus. Release the valve slowly and allow the coffee water to run into the colon until you start to feel full, then stop the valve. Retain as much of the coffee for as long as possible, then get up and eliminate in the toilet. Depending on how much solution you used, you may need to repeat this process several times. Effectiveness generally requires at least a couple of cups held for several minutes although more experience can allow almost a quart of water held for up to twenty minutes! If you can retain several cups for about seven minutes, you should consider your enema successful. If coffee enemas make you feel worse, DO NOT use them, they are over stimulating your body. An enema used daily, or several times a week can be used short term to relieve symptoms. Do not use long term or the continual stimulation will stress the liver. Coffee enemas can be a very stimulating cleanser. You may want to start with one cup of coffee and dilute it with one cup of water to temperature and move to pure coffee as able or needed. The higher the concentration of coffee, the greater the liver flushing abilities will be.

## **FLUSHING WITH A COLEMA**

A colemas, also known as a high enema since it delivers the water deeper into the colon, functions similar in application to an enema. While an enema delivers a small amount of solution that is held and released, a colemas delivers a continuous flow of water. A bucket that holds three to five gallons is used for a colemas. As you can see in the photos, a special colemas board is used to do the colon flush. The primary reason for the board is because the water must flow continuously into the colon. You are still supposed to hold the solution as it runs into the colon, but in a colemas, the water is always flowing and when you can't hold it anymore, you release it. As you can see in the photos, your bottom is held against the part of the board over the toilet. As you release the solution, it runs right into the toilet. The tip inserted into the anus in a colemas is actually smaller than the one used with the enema. Because of the amount of solution, the process can take up to 45 minutes depending on how fast you have the water flowing. Since a colemas uses much more water, the continual surge of water flows further and further into the colon. For this reason it is called a high enema. A colemas is much more thorough than an enema. Some say it takes seven enemas to get the results of one colemas, but I wonder if an enema can ever achieve the results a colemas will.

"It's like changing the oil in your car," says Guy Hopkins, the 60-year-old owner of The Spa Resort on the Thai island of Koh Samui, whose eyes glint with evangelical zeal when he talks about colonic irrigation. "If you don't do it every so often, your body isn't going to run that well. We constantly put the wrong fuel in our bodies and, sure, they keep on going, but cleanse yourself and you'll be amazed how much better you'll feel."

**COLEMAS EXPERIENCES** – the good, the bad and the ugly, reports from real people

### ***Report #1***

Ian Belcher took some persuading to go on a colonic irrigation holiday, even at a Thai beach resort. It is, he discovered, quite astonishing what gets flushed out in the course of a week's treatment. But did he feel the better for it?

When photographer Anthony Cullen heard the clank of glass on porcelain, he didn't need to examine the contents of the toilet bowl between his legs. He instinctively knew he had just passed the marble

he had swallowed as a five-year-old; the small colored sphere - "I think it was a bluey" - had lodged in his colon for years. His nonchalance was understandable. Having flushed four hundred pints of coffee and vinegar solution around his large intestine through ten enemas, and taken one hundred herbal laxatives, he had become hardened to extraordinary sights. He had already excreted yards of long stringy mucus "with a strange yellow glaze", several hard black pellets and numerous pieces of undigested rump steak. Like an iceberg breaking away from a glacier, the marble was simply the latest object to drop off the furred-up wall of his colon.

Within thirty minutes it had become a burning topic of conversation among guests at The Spa resort on the Thai island of Koh Samui. Most listened, nodded earnestly and smiled a flicker of mutual support, before describing their own bowel movements in unnervingly graphic detail. It was just another day at the tropical health farm where conversations that would be deemed unpleasant, if not obscene, in any place outside a gastro-intestinal ward, are mere idle chit-chat among the sun-soaked clientele.

They may have traveled across the world to The Spa's thatched beach huts, encircling its renowned restaurant whose Pod Ka Pow Nam Many Hoy - prawns and chili, stir-fried in oyster sauce - is a house specialty, but not a morsel of food, nor a single calorie, will pass their lips. Instead they ordered around seventy-odd gallons of coffee and vinegar, lemon or garlic solution - lightly warmed, please waiter - to be squirted up their anus. You are unlikely to find this particular dish on Masterchef.

The roots of their truly alternative activity holiday lie in our modern lifestyle. Some doctors, such as Richard Anderson, inventor of the Clean-Me-Out Program, claim our high stress existences and over-processed diets - chips, pizzas, and burgers - have left us with clogged-up digestive systems. And that, according to advocates of intestinal cleansing, makes us disease time bombs, at increased risk from cancer, heart trouble, infertility, diabetes, premature ageing and, pass the smelling salts this instant, wrinkles.

Their solution is to fast: to put nothing in one end, while simultaneously purifying themselves by propelling significant amounts of liquid up the other end. "It's like changing the oil in your car," says Guy Hopkins, the sixty-year-old owner of The Spa, whose eyes glint with evangelical zeal when he talks about colonic irrigation. "If you don't do it every so often [your body] isn't going to run that well. We constantly put the wrong fuel in our bodies and, sure, they keep on going, but cleanse yourself and you'll be amazed how much better you'll feel."

A tempting sales pitch, yet when my editor suggested a first-person report, I had grave reservations. As someone whose only concessions to healthy eating had involved switching from butter to olive oil and occasionally cutting the fat off my steak, the fast sounded frankly insane. Then I began hearing about the "lifestyle benefits" of the cleanse, of the ninety-degree heat and tropical beaches. Words such as "de-stressing" and "life-changing" were tossed around.

I weakened, dithered and finally relented. The photographer, Anthony, it was agreed, must also fast.

Our preparation began well before we spotted our first palm tree. The Spa recommended we prepared with a fortnight of abstinence from meat, processed foods (adios my daily staples, pasta and bread), milk, cheese, booze, coffee or soft drinks. Instead, our gastric juices were stimulated by salads, fruit, slightly cooked vegetables, herb teas and water.

It wasn't easy. Both Anthony and myself are what might charitably be termed "stocky", enjoying cooking and, more importantly, eating. Within days, food, or lack of it, had become an obsession. We had long phone discussions about interesting ways to grill aubergine; Anthony bragged about his spicy ratatouille. Life was changing.

As the first toxins were expelled and severe caffeine withdrawal set in, I experienced headaches, aching muscles, a lack of energy, and an increasingly short temper. I also faced a new menace: the liver flush drink. Designed to sluice out your system, it's a vile mix of olive oil, raw garlic, and cayenne pepper blended with orange juice. I've no idea if it worked, but my urine turned clear and I always got standing space on the tube.

We stuck rigidly to the diet until disaster struck: an upgrade on the flight to Bangkok. Our willpower collapsed and over the next “lost” twelve hours we demolished peanuts, smoked salmon and oyster mushrooms, roast goose, cheese, port, champagne, Baileys and chocolates.

We had four more days before the fast, but while I got back on track, the photographer went totally off the detox rails. He consumed beer, Pringles, coffee and, as we waited for the Koh Samui connection at the airport, slipped in two Burger King chicken sandwiches, a huge pile of fried onion rings, a large Coke, followed by a chicken dinner on the plane. He was clearly heading for a remarkable first enema. By the eve of the cleanse, I'd already lost over 2kg, weighing in at 86kg. Anthony was a little heavier, at 91kg. After demolishing an emotional last supper, we met our fellow fasters. They appeared a cosmopolitan crowd, confounding fears of being stranded among the sandals and lentil brigade.

There was Derek James, an engineer from Leeds, and Margaret Barrett, a sales rep from Cambridge, both in their mid-twenties and aiming to clean up their acts after “caning it” while working in clubs in Tokyo. Nicky McCulloch, a twenty-seven-year-old Australian teacher, hoped to sort out a range of allergies, including wheat and alcohol. She was traveling with Mez Hay, a worm farmer with a shock of blond hair and strident ocker accent. Passionate about Italian food, along with steak, chops and sausages from her parents’ farm, Mez admitted she was keeping her friend company and hadn’t put in a single second’s preparation. “I didn’t know about it,” she snapped. “Who the hell are you, the bloody fast police?”

Others also had tangible goals, including tackling stomach complaints, severe constipation and mystery lumps. Most were keen to stress - a cynic might say too keen - that losing weight was not the goal. “It’s a bit extreme to travel half way round the world just for a diet,” argued Mez. “You’d be a bit superficial. Mind you, I wouldn’t mind shedding a few pounds.”

That didn’t promise to be a problem. After checking our pH levels - too low and the fast isn’t advisable - we immediately learned that while we wouldn’t be eating, a great deal would still pass our lips. The relaxed, stress-free week on the beach would involve a Stalinist adherence to a pill-popping timetable. Each day started with a charming 7am detox cocktail of psyllium husk and bentonite clay. It had the texture of liquid cotton wool, but would be crucial for pushing toxins and garbage through my system.

Ninety minutes later, we had to swallow eight tablets. They looked like rabbit droppings, tasted like rabbit droppings but were, in fact, a mix of chompers (herbal laxatives and cleansers to attack the accumulated gunge in our colons) and herbal nutrients to help compensate for those missed during starvation. We had to repeat these two doses every three hours, every day, with a final handful of pills at 8:30 each night. There was just one more lesson, the small matter of the self-administered enema. Our teacher was the sickeningly lean, tanned resident alternative health expert, Chris Gaya, who appeared to have stepped straight out of a Californian aerobic video. He made the colonic irrigation equipment - bucket, piece of wood, plastic tube, bulldog clip and nozzle - sound like straightforward DIY, although it’s unlikely to feature on Blue Peter in the near future.

All we had to do, he informed us, was to lie on the wooden board between a stool (stop giggling at the back) and the toilet basin. There’s a hole at one end of the board over the loo; above it a nozzle connects to a tube, which in turn leads to a five-gallon bucket of liquid hanging from the ceiling. We would liberally coat the nozzle, which was the width of a Biro ink tube, with KY jelly, lie back, think of profiteroles with chocolate sauce, and slide on.

Controlling the flow of liquid with a bulldog clip, we were to let it flow until we felt full, before massaging it round the colon (roughly following three sides of a square around the lower belly) and releasing. Fluid would, apparently, be flowing in and out of our backside at the same time. “We’ll be on the board for around forty minutes,” cooed Chris. “So let’s make ourselves as relaxed as possible. Put on some soft music, light a candle and create a romantic atmosphere.”

We clearly took different approaches to seduction. But mastering the enema, once I’d got over muscle-clenching nervousness, really wasn’t difficult. I somehow ended up with my right foot half way up the wall, but five gallons went in and out without major trauma. By that night I’d shed another kilo, and

although light-headed after twenty-four hours without food, felt strangely satisfied with the mix of supplements and detox drinks.

Next morning, my first enema of the day down the pan, I sat in the restaurant staring longingly at the menu, and found inspiration in the shape of two women nibbling their post-fast fruit. They exuded some of the rudest health I'd ever seen.

Carol Beauclerk, a "global nomad" with a mop of curly black hair, was a vegetarian, practiced yoga, meditated and warmed up for her fast with a seventeen-day hike in Nepal. At age fifty-four, she had the energy and enthusiasm of someone half her age. "This place is really jumping," she enthused. "I'm now hoping to do a week-long fast each year."

Two tables away, scribbling in a diary, was Claire Lyons, a thirty-two-year-old British journalist who had recently completed twenty-one days without eating. Having not gone near a set of scales, she had no idea how much weight she'd lost, but told me, "I feel great. Once I got past day ten, over the hump, it was surprisingly easy." Claire oozed serenity, but three weeks without food is unlikely to leave anyone hyperactive.

By mid-afternoon, their shining example was all but forgotten. I was feeling awful. Tired, lethargic, simply lousy. Having not eaten for thirty-six hours my body was apparently going into detox mode. Margaret, who had felt nauseous since waking, had actually thrown up, and was questioning her motivation. Nicky, meanwhile, had produced "something about nine inches long, it was very dark, very scary".

Things were no better for Mez. Already ravenous, she was spending an inordinate amount of time sniffing around plates of steaming Thai curry in the restaurant. She had also failed to grasp the basics of colonic irrigation. Instead of letting the liquid flow out, she had taken a massive amount in - until she was about to burst - before struggling to sit on the toilet and release it. "I had a huge stomach," she gasped. "I was thinking, this must be wrong. If anyone can take the whole bucket in one go, they're sensational." I made a mental note to watch out for spectacular explosions from chalet six.

It wasn't all bad news, however. I discovered we were allowed the luxury of a daily bowl of vegetable broth. It made me pathetically happy, savoring every drop as if it were a Gordon Ramsay creation. Filling perhaps, but it did little to halt the weight loss, and by the end of day two, a further two kilos had vanished.

By next morning, tiredness had been added to my hunger. I seemed to have been up half the night on the loo, the result of drinking a copious amount of fluid. My bodily functions had also taken a turn for the truly bizarre. I experienced flu-like symptoms as I started to expel 36 years' worth of toxins with headaches and aching muscles; my nose ran constantly, my eyes were sore and weepy, my ears waxy. I felt like something out of *The Omen*. I had also plucked up the nerve to put a colander down the toilet. Close examination showed I had passed several feet of long brown string that shimmered as if subtly illuminated by a photographer's light.

And I wasn't alone. Margaret had picked through her colander with chopsticks to reveal yellow fatty chunks, Mez had filled hers to the brim with brown stringy "chicken skin" mucus ("We're talking litres"), as had Derek, whose output included a strip about eight inches long, while Anthony described his as "patchy, like rabbit droppings". Similar surreal conversations with virtual strangers became the norm, achieving levels of intimacy beyond the range of couples who have been together for years. Perhaps avoiding frank discussion of bowel movements is one secret of a long-lasting relationship.

That night, as I escaped the dense tropical warmth, and flicked through books on diet and nutrition in The Spa's library, I discovered a remarkable document: The Healthview Newsletter. Inside, octogenarian bowel specialist, V E Irons, attempted the Herculean task of selling colonic irrigation on its erotic potential. I would lose my frigidity, he promised, my sex life would go stratospheric.

"How could anyone fully enjoy sex when he has up to fifteen years of encrusted fecal matter and mucus in his colon?" asked Irons. "HE CAN'T - and HE WON'T. If you want to remain sexually potent for your entire life, start cleaning your colon today. I'm eighty-seven, and I still enjoy sex. And if I can at my age, I know you can at your age... so get on with it!" It was of little consolation to Mez, whose hunger had now assumed epic proportions. She was considering eating her apricot moisturizer, she told me.



That night produced the most vivid dreams of my life, a typical symptom of detox, with blockages disappearing from the mind as well as the body: I'd attacked Vietcong gun positions in a hot air balloon, I'd played golf with exploding balls, I'd been savaged by a grizzly bear. Other guests' dreams were more grounded in reality: Anthony and Mez had raided their parents' fridges, with the worm farmer devouring steak, potatoes and cheese sauce.

And some simply begged for the psychiatrist's couch. Nicky, who in reality sees her divorced father only sporadically, dreamed he had turned into her boyfriend. Freud would have enjoyed that. Indeed, in private conversations with guests, well away from my notebook, many fasters admitted to having recently split up, or having traveled to Koh Samui to get a long-distance perspective on relationships. I had unwittingly stumbled on Relate-On-Sea.

There was further physical fall-out, too. Day four was supposedly the worst of the week, with toxins expelled through the skin and lungs, as well as the kidney and colon. I didn't disappoint. My nose, ears and eyes deteriorated, my sinuses throbbed, I was yet more sluggish. It felt like a beer, wine and whisky hangover. Increasingly strange things appeared in our colanders. Derek was shocked to find rubbery nuggets, Mez had found black oval shapes "up to five inches long", my offering had an almost luminous green tint.

As if to celebrate crossing the halfway point of the week, many of us switched enema solutions. Abandoning coffee and vinegar, I flamboyantly opted for garlic, claimed to get rid of parasites. It seemed as natural as ordering gin and tonic instead of margarita, but when I casually told my girlfriend in a telephone call to London, there was a long silence. "Are you aware how tenuous your grip is on reality?" she asked. "Are you with a cult?"

I clearly needed to get out more. Many people hadn't left The Spa for days, it was developing its own micro-culture. But when I summoned up the energy to sip mineral water in a bar in nearby Lamai town, I felt instant paranoia. The lights, the noise, the crowds, the smell of food. It was a world in which I didn't belong.

I returned to the womb to find new guests. John Twigg, a burly 37-year-old Kiwi, had prepared by drinking more wine. "It's made of grapes," he argued. "Grapes are vegetables, so what's the problem?" He was joined by the Lycra-clad Mimi and Dave Hatherley from Fairbanks, Alaska, who had an unnerving habit of finishing each other's sentences. Forty-two-year-old Mimi ran, biked and did step classes five times a week; Dave, 43, ran, skied, hiked, climbed and mountain biked. They were both "into vitamins and nutrition" and while fasting were also exercising hard because "the results will be better". After talking to them, I felt strangely giddy.

My mood and physical condition, however, were about to go through a dramatic change. By lunch - sorry, by the second dose of herbal laxatives - on day five, my nose, eyes and ears had cleared, and I had more energy. Remarkably, without nibbling a single shred of food for one hundred and twenty hours, the irrigation still washed out huge amounts of gunk.

The improvement continued into day six. A nearly detoxified brain and bloodstream meant I awoke clear-headed, and full of energy. The enemas now produced less, but it was darker and harder as the fast broke away the older, more ingrained plaque.

By the morning of day eight, the fast was being credited with impressive results. It had, people claimed, got rid of allergies; removed worrying lumps that had necessitated appointments with gynaecologists; eased severe period pains and sinus problems; helped people lose kilograms while improving their skin and strengthening their nails. I'd lost well over 6kg, had an indecent amount of energy and, as people kept observing, had developed unnaturally bright eyes. I wasn't aware they were cloudy before, but felt I had earned some flattery after fourteen enemas and no food for roughly one hundred and seventy hours, thirty-five minutes and four seconds.

Final comment: It's hardly double-blind scientific research, but I defy anyone to examine a post-irrigation colander with its chunks of apparently undigested family roast and not make some small

changes to their diet. I love meat; the smell, the taste, the texture, but now it only makes a rare appearance on my plate.

Frankly, even that's too much for the gurus of cleansing, who believe a truly health diet revolves around fruit, vegetables, nuts and pulses - the more that's raw or steamed the better. Along with fish, they've become the staples of my diet. If I occasionally lapse - and nothing will make me give up Christmas turkey or goose - a flashback to The Spa reins me in.

While I'll take caffeine, alcohol and chocolate to the grave, I've also cut back on most dairy and wheat products. It might make me the dining companion from hell, but I do, at least, have the stories. People are constantly appalled yet fascinated by the idea of cleansing, and for some masochistic reason, demand the grim details between starter and main course. As they wait for their medium rare fillet or pork Dijonnaise, they crane forward to hear more about the decaying contents of people's colons.

### ***Report #2***

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And although the colemas are non-eventful in the first few days, by day three or four I'm seeing disturbing amounts of white and yellow mucus.

By days five and six I'm getting a putrid smell and witness bizarre ribbons of mucoid plaque.

During days seven and eight the matter takes on a distinctive, nauseating meaty smell. On day nine, I have the most disturbing result of all and I gag in horror. I've expelled what looks and smells like venison stew - a mass of meat and gristle which has been slow cooking in my stomach for years. But most of the time I feel blissfully serene. I feel incredibly secure and love not having to make any choices; I'm fully institutionalized.

By day eleven I've gulped down fifty detox drinks, swallowed three hundred herbal capsules and endured twenty colemas and it's time to stop. But after a final warm water coloma and a rectal syringe full of good bacteria for my gut, I'm oddly reluctant to eat.

But when I finally delve into a bowl of mango with goat's yogurt and bee pollen, it's a luxuriant delight. It's marvelous to chew again and a primal wave of deep contentment washes over me.

I've got twenty-four hours before I leave Thailand, and though I'm supposed to spend the next three days eating fruit and vegetables, my sense of gastronomic deprivation has been so acute that I go on a seafood binge - tearing into huge shrimps, crabs in coconut milk and fish steamed in chili and lime.

The evening before I fly home, I go to a night market and sample every Thai treat I can find. I'm ending the fast as ineptly as I began it.

Back home, I'm disappointed with my weight loss. Most other fasters lose around half a stone after fasting for seven days. I lost ten pounds, but put four of them back on after my seafood banquet. My friend Lucie, who fasted for only seven days, has lost almost a stone.

But weight loss aside, all my minor ailments - such as my oversensitive scalp, muscular neck pain and occasionally spotty skin - have disappeared.

I get full far more quickly and find it easier to listen to my body and know when to stop eating. I crave fruit and vegetables, have developed an aversion to steak and now chew meat thoroughly. Wine tastes extremely potent and I no longer drink every night.

Although I'm not hitting the new year with a new body, I hope I've developed a new attitude to food. For the first time in my life I'm beginning to realize that changing my eating habits has other benefits alongside weight loss.

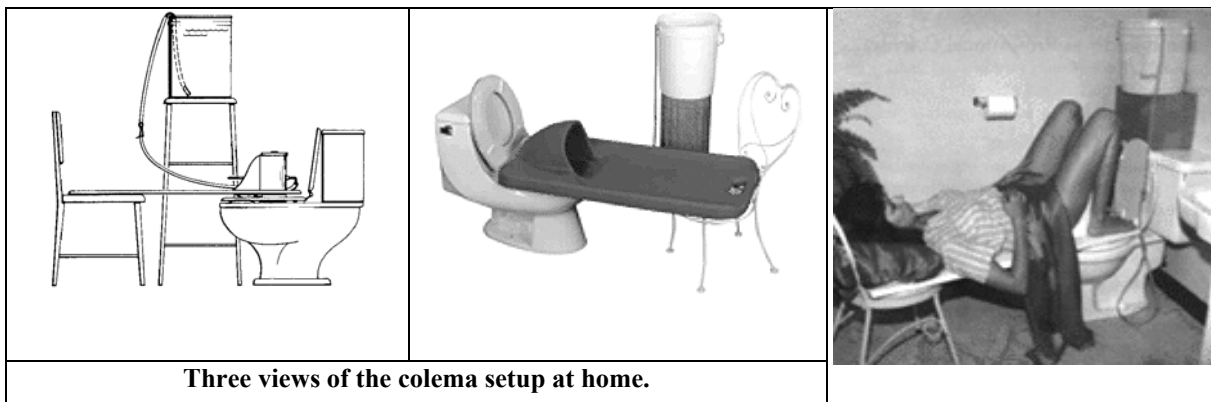
I plan to fast every year from now on because any process that encourages cutting down on red meat, sugar, alcohol and caffeine must surely be a good thing.

Oh, and, with a bit of a tug, my skinny jeans slide on perfectly.

## REVIEW OF COLEMA SETUP FOR PRIVATE USE

### ITEMS YOU WILL NEED

- A colema cleansing kit, which includes the board, bucket, hose and colema tip. You can investigate your own sources, but [http://www.mannaharvest.net/index.php/cPath/1780\\_1995](http://www.mannaharvest.net/index.php/cPath/1780_1995) has the set for \$210 plus shipping, at the time this was written.
- Water is the basic solution, but if you choose something from the options below, you will need the ingredients.
- You will desire a bit of lubricant, such as olive oil or KY Jelly.
- A pillow and soft pad or old blanket to place on the board for added comfort is recommended.
- Perhaps a book or soft music as the process will take you 45-60 minutes to complete your flush.



1. **Situating the colema board:** The colema board should have a hole in one end of it. This end will rest in a centered position over the toilet bowl. It is best to have the toilet seat raised. The other end of the board will rest on a solid chair. It is best to have a slight elevation on the end of the board that sits on the chair (perhaps an inch or two.) You will be lying on this board, so try to make a stable condition with your board and your chair. If your bathroom is too small to accommodate the colema setup as mentioned, you can use a five-gallon bucket in the place of a toilet and simply empty the bucket when you are finished.
2. **Placing the bucket:** The solution (generally contained in a three to five gallon bucket) should be situated so that the bottom of the bucket is anywhere from twenty to forty plus inches above the colema board. You may want to place your bucket in its position and then fill it with your solution rather than filling it first and having to lift the filled bucket to your desired position.
3. **Making your solution:** You can do some research and use any solution you want. You will need to prepare at least three gallons total, but as many as five gallons are recommended if you have a bucket that will hold that amount. Most water temperatures for giving Colonics range from cool to very warm, but should be a comfortable temperature for the individual user. You can test it by putting some on your wrist, the way you might test a baby bottle, or stick your elbow in the water and see how it feels. Here are some suggestions for solutions:
  - Warm water is the most original option, the most common. Just plain, clean water heated to a warm temperature.
  - Diluted coffee is the second most effective solution. If you have a history of liver difficulties, joint problems, inflammation, pain, brown age spots, skin conditions or any chronic condition, you may want to use this option. Make two cups of coffee at regular strength as if you were going to drink it, making sure the coffee is steeped or perked, not instant. You will be adding these two cups of coffee to your three to five gallons of water, so it will be very diluted. If you have no adverse reactions, which means pain of some kind, you may increase the amount of coffee until up to half of your total solution is coffee. Keep in mind that the more coffee you use, the more “awake” you may be, so don’t do it at night if this will be a problem.
  - Water and minced garlic is often used if you suspect a lot of parasites. There are a lot of people blaming all kinds of health conditions on parasites. I don’t often agree, so a sign I might use would be itching, particularly *rectal itching* or any kind of twitching. If you have these symptoms, you might consider six to ten cloves of garlic minced very small and then mixed into your bucket of water. Chunks of garlic could clog up your colema tube, so it is best to put the garlic in a blender with a cup

or two of water, strain it after blending and put the water in your colema solution. Mix well! Concentrated garlic in the lining of the intestine will probably cause some irritation.

- One tablespoon of Epsom Salts dissolved in five gallons of water can be a good colema if you have a history of constipation. The attributes of this salt can help the muscles of the colon relax and may work to draw certain kinds of toxins from the body. If you have *skin issues*, Epsom salt may be a good option.
  - Lemon Juice: A quarter cup of strained lemon juice in your solution is another option. This is particularly good if you know you have had an extreme acid condition (pH).
  - Herbs: If you know the action or affinity of an herb, feel free to use it in the water solution. The best way would be to find the raw or dried version of the herb, anywhere from one to four cups of it. Generally, you would want to bring several cups of water to a boil, and then turn the stove off. Add the raw herb and let it steep in the water for at least twenty minutes. Depending on the nature of the herb used, you may need to actually boil the herb (may apply to bark and roots). Once complete, strain through a cheese cloth and add to your bucket of solution.
4. **Getting comfortable on the board:** You will be lying on the board for 45 minutes, maybe more, so you will want to create a comfortable position. Place an old towel or pad on the board, but keep it eight to twelve inches from the hole that is over the toilet. Place a pillow or two at the end of the board farthest from the toilet. When everything seems to be in position, put your lubricant (olive oil or KY jelly) in reaching distance from the board. Put the tip of the hose over the hole in the colema board and slowly open the bull clip allowing all the air to run out of the hose. When you see the solution emerging, shut the bull clip. Turn on your music or put your book on the pillow. You are now ready to lie on the board. The most important part is that you have your feet on the board on either side of the board (as seen in the photo) with your buttocks tightly sealed against the buttock support of the board over the toilet bowl. Before you get your final position, you will need to insert the tip into the anus, but you should make sure you know just where your final position will be first. The water will be flowing into the rectum and colon and then eliminated. When elimination occurs, you want the waste to flow down the opening into the toilet, not all over the board or on the floor. Get a tight fitting position and get comfortable, you are now ready to begin.
  5. **Beginning the colema:** The end of the hose should have a tip that is about six inches long. This is only inserted about three inches into the rectum. It may be wisest to place your fingers about three inches from the end of the tip, lubricate the tip a little bit and insert until your fingers meet your hind end. This way you assure you have not pushed the tip too far. To insert the entire tip may be fine for some, but for others it may push against the delicate intestinal lining causing harm. You cannot insert the tip while your buttock is tight against the buttock support, so once the tip is inserted, position the hose either between your legs or out to the side under one leg and slide down the Board until the buttocks touches the edges of the buttock support. When ready, open the clamp to allow the solution to flow freely into the colon. Open it ever so slightly at first so you can acclimate to the experience without feeling too much stress. The goal is to hold the solution in the colon. Open it a bit more as able. The faster the solution moves, the faster the colema solution will be spent and the colema will be over.
  6. **Relax, hold and eliminate:** It does not work if you do not relax. Start massaging upward on the left side (descending colon). If you find tender, sore spots, continue to massage that area until the tenderness is gone. Continue upwards just below the ribs, then across just below the ribcage (transverse colon), and down the right side (ascending colon). Try to eliminate sensitive areas as you proceed. When it becomes necessary to evacuate, simply relieve the bowel by expelling the water. The fetal matter will bypass the tip allowing normal bowel action, without removing the tip or changing your position. After you evacuate, continue to hold the solution and repeat this process until the bucket is empty.

## WHAT TO EXPECT

It is not unusual to pass rope-like material that is somewhat lengthy and elastic. Some of the success of the colema may depend on the massaging technique as that helps loosen waste from the intestinal wall. You may use an electric massager if you prefer. What to expect really depends on your level of curiosity or dedication to the process. Some people cannot fathom the process all together and just want it over and done with as soon as possible. But participation in your own process will make it more effective. The experienced and curious often put a colander in the toilet prior to the colema so they can analyze and confirm the effects of the process. You should examine such debris carefully wearing protective gloves, but most use chop sticks or some small hook to investigate the possible mysteries. I know, to some of you, this sounds beyond barbaric, but keep in mind that there is nothing being eliminated that you did not first pass through your mouth. It can't be that disgusting. If it is, you may want to consider what you are putting in your mouth and calling food.

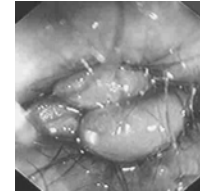
If you are over thirty, look for a sticky Grey or Brown substance resembling the white of an egg or a jellyfish (unhealthy mucous). Do not flush the toilet during the entire Colonic, so you can see what comes out. If you have any kind of chronic ailment, you undoubtedly will have some black incrustations which may have been loosened by the products but cannot be eliminated because of twisted kinks in the colon. If there are no absolute blockages, these black incrustations may come out in small or large chunks, or as long ribbons, or as hard and tough pieces resembling pieces of truck tires you have seen on the highway, but smaller of course. If necessary take two or three of these Colonic enemas per day for the whole seven days.

Please note that an enema is the same as a Colonic but doesn't go as far up (usually only up to the descending colon). We resist on going all the way up, across, and down to the appendix. All must be cleaned out. If you are unable to give yourself a Colonic, contact a doctor, or Colon Therapist/Hygienist who gives them, but make him/her give the massage too. Just running a mass of water into the colon is not wholly desirable (Massaging is preferable).

Upon completion of the irrigation, wash the board, tubes, and tip with a good germicidal solution. Be sure not to boil the plastic tip as it may cause distortion in shape.

## DISEASES OF THE LARGE INTESTINE

**Hemorrhoids** occur when the colon is unhealthy and there is a history of constipation. Longstanding toxins and poisons cause the rectal vein to become inflamed and in severe cases emerge through the anus and protrude on the outside (as seen in the **photo**). Hemorrhoids can be very painful. Don't start thinking about cutting anything; we just need to eliminate those irritating poisons. I have commonly found that people with hemorrhoids are having an allergic reaction to a food, chemical or preservative. It doesn't have to be a toxic item. I have seen reactions to rice and sweet potatoes, which are natural foods. If the allergy can be identified and antidoted, the body will often reverse the hemorrhoid over night! Keep in mind that the cases which worked that quickly were acute, not long standing chronic issues. General correction of hemorrhoids is as simple as doing a good colon flush to eliminate all the accumulated toxins and poisons.



**Intestinal gas** is the result of fermentation. Generally the "bad" bacteria in the colon is not being neutralized by the friendly flora. There is often a food or group of foods that disrupts the bacteria balance although excessive acidity in the intestine is certainly involved. The acidity may be caused by that food or the fact that you eat too many acid foods. It is common for foods like beans to cause gas in some people. This is due to the inability to break down that food because the body lacks necessary enzymes. The lack of enzyme causes lack of digestion and lack of digestion causes fermentation.

**Diarrhea** is characterized by loose, watery bowel movements. Infection is the most common cause although reaction to foods and certain diseases of the colon can cause it. You wouldn't often consider diarrhea as a good thing, but it can occur as a protective mechanism. If you eat something toxic, something that might make you very ill, the body sometimes chooses to flush the intestine and diarrhea is the result. Irritation of the intestinal lining (from parasite, bacteria or virus) and gallbladder dysfunction should be considered when trying to find the cause. When a diet is not balanced with fiber, constipation can occur and actually cause diarrhea. If the stool becomes hardened and lodged in the colon or the colon has a kink or structural blockage, it may restrict the solid contents from passing. The liquid would continue to move causing diarrhea.

**Constipation** is a most terrible thing because it will eventually lead to many diseases. I already discussed the need for regularity, but it is important enough to say again. Constipation is generally caused by a lack of water, fiber, bile secretion, exercise, flora or all of these. Most people are constipated but people don't consider it until it starts hurting their belly. It is essential to move the bowels on a regular basis, which means one time for each meal that you eat. Use herbal stimulants like the Bowel Stimulant from HCMI. Herbal stimulants encourage the muscle movement of the bowel (peristalsis) and release bile from the gallbladder. Some people get worried that the bowels will become dependant on the herbal stimulant, but it is better to rely on a natural herb God made than not move the bowels regularly.

**Irritable bowel syndrome (IBS)** occurs more frequently in women under age thirty-five, and often begins in late adolescence. It may be related to psychological stress and is commonly marked by an abnormally active, even spastic, lower bowel. Its symptoms are similar to a number of other illnesses, including diverticulosis and lactose intolerance. These symptoms include uncomfortable abdominal sensations and periodic diarrhea or constipation, sometimes occurring alternately. Some patients come to depend on laxatives and even enemas to alleviate the constipation. For others, the only symptom is painless diarrhea. Treatment includes a diet high in fiber and low in

fat. Certain gas-producing foods, such as those in the cabbage family, should be avoided, as should any other suspected irritants, which can be very individual for each person.

**Inflammatory bowel disease** is a blanket term covering three serious disorders: **ulcerative colitis**, **proctitis**, and **Crohn's disease**.

Ulcerative colitis is an inflammation of the colon which produces ulceration of the inside wall. Its primary symptom is bloody, chronic diarrhea, often containing pus and mucus, and associated with abdominal pain and weight and appetite loss. When confined to the rectum, it's referred to as ulcerative proctitis. It does tend to run in families and is more common in Jews and Caucasians than other ethnic or racial groups.

Sometimes known as ileitis, Crohn's disease is an inflammation of the small and/or large intestine, with accompanying pain, cramping, tenderness, gas, fever, nausea, and diarrhea. Though usually mild, bleeding may occur and may sometimes be massive. More about Crohn's disease can be found in the section discussing small intestine.

Proctitis, an inflammation of the rectum, is characterized by bloody stools, a frequent urge to defecate but inability to do so and sometimes diarrhea. Possible causes are ulcerative colitis, Crohn's disease, trauma, infection or radiation.

Ulcerative colitis and Crohn's disease are generally chronic and have no known cures. Treatment usually consists of symptom relief and reduction of inflammation. When there are acute flare-ups, the patient should avoid stimulants such as caffeine, citrus fruits, and foods high in fiber. Medical therapy includes steroids such as prednisone (Deltasone) and drugs such as olsalazine (Dipentum) which have both anti-inflammatory and antibacterial properties. If attacks of ulcerative colitis become severe enough to be life-threatening, surgical removal of the colon can save the patient's life. Surgery also is sometimes performed for very severe complications of Crohn's disease.

**Diverticulosis**, a condition most common in men over the age of forty, is present in up to fifty percent of people at the age of sixty. Though generally silent until bleeding and inflammation occur, it can be marked by alternating constipation and diarrhea. The disease occurs when bulging pouches (diverticula) form at weak points in the wall of the colon. If they become inflamed, they can cause severe pain, fever, nausea, and vomiting; if small vessels at the base of the pouch become disrupted, there may be significant intestinal bleeding. When symptoms occur, they can be alleviated by a liquid or bland diet and stool softeners. After symptoms subside, a high-fiber diet is usually effective in preventing recurrence and progression of the disease.



A section of colon reveals numerous diverticula which protrude from the edge of the taenia coli.

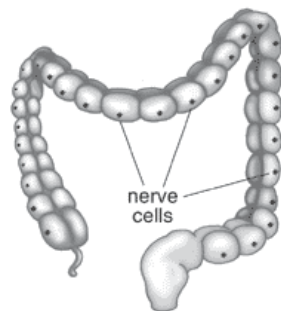
The colon is cut in cross section revealing the diverticuli (contain feces) and the empty colonic lumen.

**Intestinal polyps**, abnormal growths that may occur anywhere in the GI tract, but are most often found in the large intestine. Though they generally cause no symptoms, a major sign is rectal bleeding. Polyps are rare in underdeveloped countries, suggesting that our high-fat, low-fiber diets may be partially responsible. They are more frequent in individuals with a family history of polyps or cancer of the colon. Reducing the fat content of your diet by 25 percent and consuming fiber-containing foods on a daily basis are both recommended. Polyps are thought to be precursors of colon cancer, so it is important to correct the problem both in diet and detoxification.

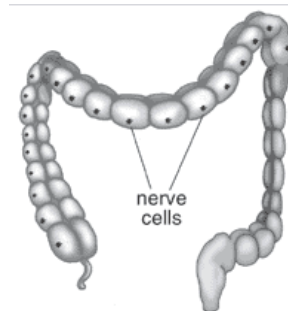
**Colon cancer**, silent in its earliest stages, becomes evident as it progresses. Symptoms include bleeding, at times invisible to the naked eye, with resultant anemia, as well as a change in bowel habits, often accompanied by pain, weight and appetite loss, weakness, and a general decline in health. The risk for colon cancer increases with age, doubling with each decade after the age of forty. High fat, low fiber diets are associated with this disease. The reason the chances grow as one gets older is because it is more time for all the toxic factors to accumulate in the colon. That is why regular colon cleansing and high fiber intake is very important.

**Hirschsprung's Disease** occurs when some of the nerve cells that are normally present in the intestine do not form properly while a baby is developing during pregnancy. Between the fifth and the twelfth weeks of pregnancy, while the fetus is growing and developing, nerve cells form in the digestive tract, beginning in the mouth and finishing in the anus. The nerve cells do not grow past a certain point in the intestine in babies with Hirschsprung's disease. As food is digested, muscles move food forward through the intestines in a movement called peristalsis. When we eat, nerve cells which are present in the wall of the intestines receive signals from the brain telling the intestinal muscles to move food forward. In children with Hirschsprung's disease, a lack of nerve cells in part of the intestine interrupts the signal from the brain and prevents peristalsis in that segment of the intestine. Because stool cannot move forward normally, the intestine can become partially or completely obstructed (blocked), and begins to expand to a larger than normal size. The obstruction (blockage) causes pressure on the inside of the intestine, causing part of the intestinal wall to wear thin. Eventually, a bacterial infection can develop in the digestive tract, causing serious problems. The problems a child will experience with Hirschsprung's disease depend on how much of the intestine has normal nerve cells present. Seventy percent of babies with Hirschsprung's disease are missing nerve cells in only the last one to two feet of the large intestine. Hirschsprung's disease causes twenty-five percent of intestinal obstructions that occur in newborns. Hirschsprung's disease occurs in one out of every five thousand live births. Hirschsprung's disease occurs five times more frequently in males than in females. Children with Down syndrome have a higher risk of having Hirschsprung's disease. Eighty percent of children with Hirschsprung's disease show symptoms in the first six weeks of life. Children who only have a short segment of intestine that lacks normal nerve cells may not show symptoms for several months or years. The following are the most common symptoms of Hirschsprung's disease. However, each individual may experience symptoms differently. Symptoms may include:

- not having a bowel movement in the first forty-eight hours of life
- gradual bloating of the abdomen
- gradual onset of vomiting
- fever



In a healthy large intestine, nerve cells are found throughout



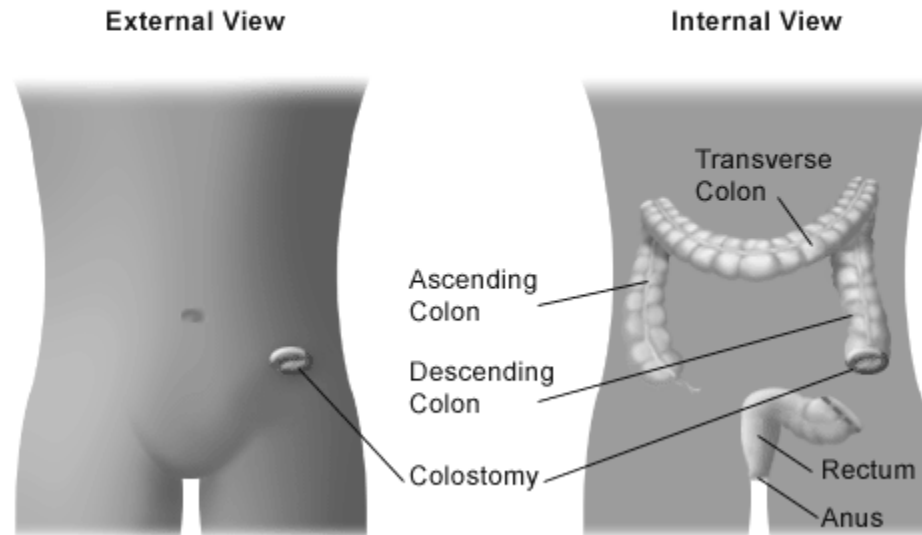
Nerve cells are missing from the last part of the intestine

How is Hirschsprung's disease diagnosed? A physician will examine your child and obtain a medical history. Other tests may be done to evaluate whether your child has Hirschsprung's disease. These tests may include:

- Abdominal x-ray - a diagnostic test which may show a lack of stool in the large intestine or near the anus and dilated segments of the large and small intestine.
- Barium enema - a procedure performed to examine the large intestine for abnormalities. Fluid called barium (a metallic, chemical, chalky, liquid used to coat the inside of organs so that they will show up on an x-ray) is given into the rectum as an enema. An x-ray of the abdomen shows strictures (narrowed areas), obstructions (blockages), and dilated intestine above the obstruction.
- Anorectal manometry - a test that measures nerve reflexes which are missing in Hirschsprung's disease.
- Biopsy of the rectum or large intestine - a test that takes a sample of the cells in the rectum or large intestine and then looks for nerve cells under a microscope.

An operation is usually necessary to deal with intestinal obstruction caused by Hirschsprung's disease. The surgeon removes the portion of the rectum and intestine that lacks normal nerve cells. A colostomy is done so stool can leave the body. With a colostomy, the upper end of the intestine is brought through an opening in the abdomen known as a stoma. Stool will pass through the opening and then into a collection bag. The colostomy may be temporary or permanent, depending on the amount of intestine that needs to be removed. After a healing period, many children can have the intestine surgically reconnected above to the anal opening and have the colostomy closed.

## Bowel Resection and Colostomy



### NUTRITION

- Water is one of the most important elements for the colon. Drink a big glass first thing in the morning.
- **Intestinal Cleanser #1**, which is an herbal fiber formula made by HCMI, is the most important element for the colon. Fiber is the natural cleanser for the body. Plenty of raw fruits and vegetables would be the first option to get natural fiber. Remember that the human body was designed to be vegetarian and there was no way to cook anything, so it would have been raw fruits, vegetables, nuts and seeds. I don't find that supplement formulas with all of these ingredients are a good idea (they don't test well), but some form of herbal fiber is needed if you are not eating a high fiber diet as intended. The most common ingredients in a fiber formula is generally based around Psyllium Hulls. This is a good product, but it irritates some people.
- **Natural fiber options:**
  - Plenty of raw fruits and vegetables
  - 3 or more prunes at bed time (most effective if they have been soaked in water all day)
  - 6-8 figs at bed time (most effective if they have been soaked in water all day)
  - 1-3 tbl ground flax seeds (must be bought whole and ground daily in coffee grinder)
  - Psyllium Hulls / Husks
  - Raw Sauerkraut
  - Rhubarb
  - Rice Bran
  - Warm Prune Juice (heat on stove, not in microwave)
- **Bowel Stimulant** is an herbal combination made by HCMI, or some herbal form of laxative is the next most important thing for the colon. Constipation is very common. Some people fear that they might become dependent on laxatives, but if it is a truly whole, herbal formula, it should not be a concern. Using herbs carries no more risk than eating a good salad. The need for a laxative simply means the diet is not good enough, or the liver/gallbladder is backed up or the intestine has too many mucoid linings. Whole herbs are food, not to be considered as medicine, thus it is not a problem if a person must take them on a continual basis.
-



- Better to go than not to go. Laxative options for the more challenged intestines:
  - Epsom Salt, start with a teaspoon mixed in warm water, increase as needed in the evening.
  - Cascara Sagrada
  - Senna
- Babies - laxatives given to the mother will pass through the breast milk. But often if you massage the rectum, even insert a thermometer about a half inch a couple times it will promote the colon to move.
- Herbs good for conditions of the colon:
 

○ Activated Charcoal (helps stop loose stool, absorbs poisons in the intestine)	○ Licorice root
○ Aloe Vera Juice	○ Linseed
○ Boswellia(also known as rankincense)	○ Lobelia in the form of enema can give quick relief- use only as needed, not consistently
○ Buchu Leaves	○ Marshmallow
○ Calendula	○ Myrrh
○ Cramp Bark	○ Peppermint
○ EPA (fish oil)	○ Psyllium Seed
○ German Chamomile	○ Tumeric
○ Ginger	○ Yarrow
○ Green Tea	○ Wild Yam

### **TIME OF PRIMARY ACTIVITY**

5 - 7 a.m. This is the time when this system is detoxifying. And yes, when the body should normally have its first urge for elimination. The time of activity is valid in case a person has complaints at this time during the day specifically, or complaints are more apparent or severe during this time. If this is the case, it would indicate a primary weakness in this system. The paired organ for the colon is the lung. If the large intestine does not function well, it will take energy from the lung. I find that most lung weakness is a primary weakness of the large intestine.

### **EMOTIONAL**

Lack of expression is the best way to phrase the emotion involved with the large intestine. It's funny because if a person has a spastic colon, they will hold everything in. I am talking about the important emotional areas. Instead of talking to people, they shove their feelings and opinions and become martyrs for what others think because they cannot express themselves. They often have a smaller mouth and small, tight lips. The person with a more ballooned colon or inflamed colon will have the same characteristic in the deep areas of emotion, but they will be noisy at the same time. The spastic colon person wouldn't go out and socialize; they would rather stay quiet and unseen.

### **SUGGESTIONS TO STRENGTHEN**

- Express your feelings (preferably not in an angry way).
- Drink more water.
- Eat more fiber.
- Eat less saturated fat.
- Exercise more (especially abdominal exercises).
- Make sure food is digesting and assimilating in the stomach and small intestine.
- Make sure the liver is healthy and producing bile.

### **EVIDENCE OF WEAKNESS**

- Forehead wrinkles, indicates people hold their emotions in the colon.
- The corners of the mouth are tight.
- Chin area has wrinkles or abnormalities.
- Small mouth
- Large mouth
- Lips that don't seem to move when they talk
- A person that walks, but their hips seem frozen-only the legs move
- Sway back
- Large gut