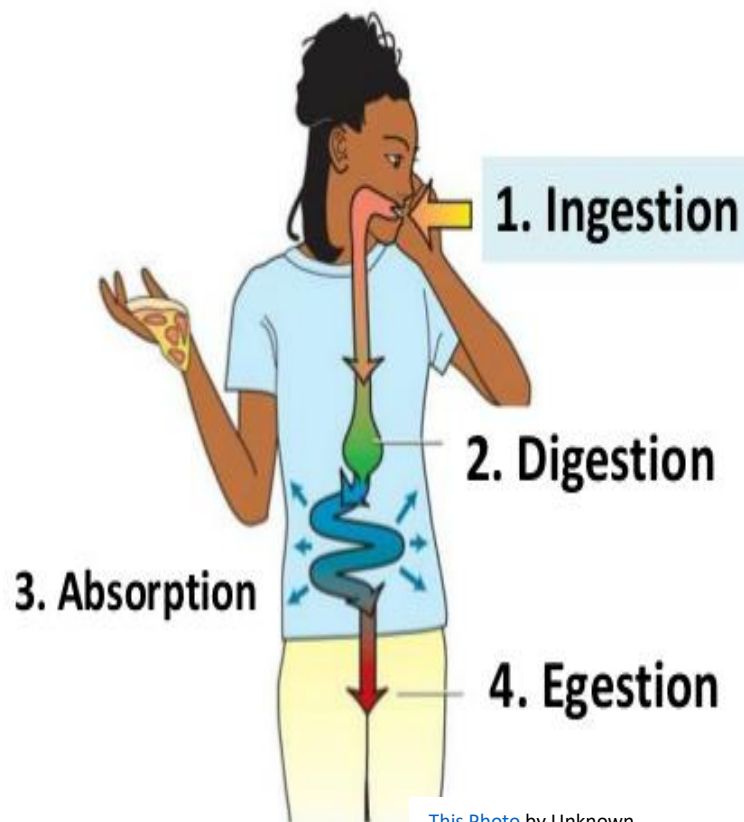


DIGESTIVE SYSTEM

THE BALANCE OF LIFE

SESSION II



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DIGESTION:

The digestive system – alimentary canal is 30 feet long in adults; however, it can be longer depending on the person's height, weight, and gut distention. This system begins in the mouth and extends to the anus. There are several organs and passageways in between the mouth and anus that uptake nutrients and expel waste by products from foods consumed.

Depending on the type of foods, the season in which they are consumed, whether they are chewed well or gulped, and your emotional temperament at the time of consuming them, determines how they will interact with your body.

Digestion is the chemical break down of food into smaller particles that nourish the blood, cells, tissues, and organs. The digestive process discriminates whether food byproducts remain in the body or releases as waste. If for any reason the digestive process fails, the body is unable to receive nourishment, resulting in mal-absorption, causing mal-nutrition. Malnutrition, reduces the body's immunity, opening it up to a host of unhealthy conditions.

There was a time in family's history when being thin was seen as being unhealthy. Now, it is the opposite. In today's world, being heavy (having some meat on one's bones) indicates that the body is not digesting, absorbing, assimilating nutrients, and eliminating food byproducts in a timely manner, resulting in overweight conditions that can causes other health disharmonies. *There are no Fat people in the world, they are just full of waste.*

Digestion begins in the womb and continues from birth to death. Digestion is the relationship between mother, placenta, and baby. It is where the baby receives nutrients and waste is released from the baby's blood. Once a baby is born, breastfeeding is the next step in the digestive process.

Breastfeeding serves several different health relationships in a child's life, it jumpstarts the movement of digestion, it embraces the child's ability to comprehend feelings, emotions, touch, attachment, and security in life. It begins the nourishment of the child's ability for nourishment, growth, and development of blood, cells, tissues, and organs as it builds their immune system. It balances their microbiome in the small intestines. Human Milk Oligosaccharides (HMO) is one of the main ingredients in breast milk, that feeds the infant's microbiome to build their immune system.

Science shows that when a child is not breastfed, they tend to have more health disharmonies than children who are breastfed. As we age, it is found that many people who were not breast feed have a higher prevalence of health disharmonies and their medicines increase over time to maintain health stability. Aging also decreases digestion, where the ability to receive nutrients, declines causing health disharmonies.

Improper digestion is not frequently addressed nor investigated by many health authors. Improper digestion is the major cause of overweight, obesity, autoimmune disorders, and other health disharmonies. We are now in an era where more researchers are identifying microbiome as a major element of health, however, they all don't discuss the entire digestive system. We are

witnessing more tv aids about microbiome to sell products, because medical science has found that our microbiome is the key to health, healing and longevity.

There is little information about the chemical elements of the digestive system and their relationship to food, unless it has to do with an allergic reaction we know as allergies. Food breaks down into chemicals that must integrate into the chemistry of our body for nourishment. When food chemistry is unable to merge into our body's chemistry, a chemical reaction takes place that could include, nausea, vomiting, bloating, diarrhea, constipation, diverticulitis, Crohn's disease autoimmune deficiencies, and other health disharmonies.

With the lack of understanding, the relationship between food and body chemistry, few researchers discuss food combining, which is the foundation of nutritional health. Within each part of your digestive tract there is a chemical exchange that breaks down food chemicals into smaller nutrients elements that are absorbed and assimilation into your blood for the nourishment of cells, tissues, and organs. Food combining is not a topic that you see or hear about often, however, it is a major contributor to our health (more on this topic later).

Health researchers are more into counting calories than understanding the chemical relationship of foods and your body. Humans are the only animal in GOD's kingdom that counts calories. When we consume foods that are healthy, then the energy of foods called calories (energy) are being absorbed as nutrients where nutrients are enhancing the quality of the body's elements (energy, blood, organs, systems, etc.).

To be truthful, digestion begins in the mind and not in the mouth. It begins with the sensory perceptions of smell, the sight of foods, or a conversation about food. These three subjects stimulate the flow of gastric juices through the organs of digestion. Perception increases the salivation in the mouth, stomach gastric juices churning and the movement of peristalsis (motion that move the waste to the colon). Therefore, just the smelling food can create a rumbling sound in the intestinal tract (borborygmus, the sound of digestive juices churning).

If digestion is unable to separate nutrient from foods, the food turns to waste, and lodges in the body for years resulting in overweight, obesity, heart disease, hypertension, and other health disharmonies, including death. When your small intestine is unable to identify the food and/or beverage that has entered it, the small intestine then stores it as waste and it sits in your small intestine fermenting and putrefying as it turns into toxic poisons, creating unhealthy microbiome along with the Leaky Gut Syndrome.

The digestive chemical process includes elements such as enzymes, minerals, vitamins, amino acids, carbohydrates, water, fats, antioxidants and other organic substances. These elements provide the action of building health.

Digestion is a basic act of combustion that converts food into energy. This energy allows us to live healthy. Energy increases or decreases depending on the types of food intake and the body's ability to digest properly.

DIGESTIVE PROCESS

After one has decided to eat food, the food enters the mouth where it is chewed (masticated) and turned into liquid. Food is then mixed where digestive enzymes breakdown starches into sugar. When this process is obstructed or inhibited by a lack of chewing or drinking while eating, the body becomes unable to receive nourishment from food and illness can occur.

Once again, the process of digestion does not begin in the mouth it begins in the mind. The sight, smell, or discussion of food, stimulate the olfactory nerve, which promotes digestive juices to flow, inducing the feeling to consume food or beverages. Taste, on the other hand, occurs when food is placed in the mouth, which changes the Ph balance in the mouth and stimulates the flow of the digestive system.

Many food-processing companies enhance food's looks, color and texture with dyes, additives, and preservatives to increase its appeal to stimulate a chemical reaction within your body to trigger craving for their product. In some conditions, consumers can become addicted to the product (coffee, sugar, etc.).

When the digestive process is malfunctioning, the body is unable to extract nutrients from your food allowing waste to accumulate resulting in health disharmonies.

The Three Phases of Digestion

1. Digestion is the biochemical break down of foods into usable particles for the nourishment of the body. The major contributor to building immunity.
2. Absorption/Assimilation is the body's ability to extract nutrients from foods and fluids. Enhance the quality of the red blood cells (erythrocytes). Enhance immune qualities.
3. Elimination is the body's removal of waste from foods consumed.

THE MOUTH

The mouth is an acid and alkaline environment, its Ph balance is from 6.5-7.5. The mouth houses taste buds with sensory receptors that stimulates a chemical reaction to digest starch through an enzyme called amylase. The mouth receptors identify taste, texture, temperature, and form of foods to be digested. However, the body can be fooled by the incorrect combination of food. The results of these incorrect combinations can cause indigestion, gas, constipation, and other gastrointestinal illness.

Emotions – worry – impatient – anxiety – anger – joy – fear - can reduce the ability of the body to receive nutrients. Can cause excessive waste storage increasing the scale.

Health Disharmonies: canker sores – cold sores – dental health – gum disease – salivary gland disorders.

Attributes: blocking your voice in life – blocking your nourishment of life – stifling your love for self and other – overzealous in the expression of love – lying - misleading information - etc.

The pH balance of saliva 6.5 -7.5

THE STOMACH

Food leaves the mouth and travels down the esophagus into the stomach. The stomach is found in the left side upper abdomen. Hydrochloric acid in the stomach has a Ph balance of 1.5 to 3.5 where the enzyme pepsin digests protein. Because protein has a nitrogen element, it needs an acidic environment for absorb into the body.

If the acid environment of the stomach is improperly functioning and its downward direction is hindered, it can result in acid reflux (GERD), heart burn, hiatus hernia, and another digestive imbalance.

When a person drinks any liquid whether hot or cold at the same time they are eating, it alters the digestive juice balance, (especially hydrochloric acid) hindering the digestive process. When the liquid is cold, it really affects the hydrochloric acid's temperature and disrupts the ability to digest proteins. It is not advisable to drink while eating a meal. However, the only time you should drink and eat at the same time is when you are taking a food supplement (enzymes or micronutrients -minerals/vitamins).

Fluids should be consumed an hour before or an hour after a meal. The only time a person should drink at the time of eating is when taking supplements, and only enough water should be consumed to swallow the supplement. The only other time one should drink and eat is when consuming bulky fibrous foods like bran, psyllium etc. The fluid should be water to assist the fiber in its ability to move through the digestive system, as it assist in the removal of waste.

Protein should always be eaten by itself; it makes it easier to digest. Another thing to remember is that starch will not digest in the stomach because it needs an alkaline environment for digestion. Starches will only ferment in the stomach.

Emotions: Worry – Anxiety – too much thinking reduces the stomach’s ability to process protein allowing it to flow into the small intestine where it putrefies.

Health disharmonies – Gastroesophageal Reflux Disease (GERD) – hiatal hernia – dyspepsia peptic ulcers – gastroenteritis - cancer

Attributes: a feeling of lack of fulfillment in life – not able to let go – lack of understanding nourishment of life – discriminate of inabilities in life – undecisive in life – mentally blocking your path to healing. It maintains the rotting and ripening of food, as it controls the transportation, and descending of Qi and food. Your stomach is the origin of fluids from food to assist in maintaining body fluid. Your stomach dislikes dryness.

Stomach/Spleen Relationship: Your stomach is married to the spleen and together they are the first part of digestion in Oriental medicine. As your stomach begins the digestive process of ripening and rotting foods, your spleen transforms, and transports food essence to your blood. Their function is to provide your body with nutrients and Qi (energy).

Qi is the energy of life and blood is the denser form of Qi that holds and circulate nutritional elements to nourish your cells, tissues, and organs for health, wellness, healing, and longevity. Your spleen is the site of your thoughts. It controls of your blood, muscles, and the four limbs. The sensory organ of the spleen/stomach is the mouth and lips. The pH balance of the stomach -1.5 -3.5 - spleen 6.8 – 7.20

SMALL INTESTINE

As food leaves the stomach, it enters the small intestines by way of the duodenum where the environment begins to change from a Ph of 6 and move to 7.4, because of the bicarbonates in that area of the digestive system. In the caecum portion of the small intestine, your pH balance drops to a 5.7 before moving to a 6.7 in the rectum. At the same time, the pancreas is secreting enzymes to digest carbohydrates, sugars, fats, proteins, and the uptake of nucleic acids (DNA and RNA).

The environmental changes of the small intestine make it the major digestive organ because of the balance of the microbiome. It is the organ that determines whether your body receive nutrients or compacts with waste. After the upper digestive tract has processed food into chemical, the small intestine separate waste from nutrients, where the nutrients are absorbed, and a simulated into blood, waste by products from foods consumed are sent to the bladder and large intestine to be expelled from your body as urine and feces. When waste is unable to be evacuated, it stores in the adipose tissue (fat cell) causing the tissue to expand resulting in weight issues.

The liver manufactures bile and secretes it to the gallbladder, where your gallbladder secrets it through the common ducts into the small intestines to digest fatty acids.

Emotions: Impatient – joy - blocks the heart’s rhythm and slows the flow of Qi and blood. It impedes the small intestine ‘s ability to absorb, assimilate thoughts, concepts idea and ideal.

Health Disharmonies – malnutrition – malabsorption of nutrients - interruption of cells growth – development – impeding on the healing prosses – obstruction of bowels – obstruction of blood vessels - dysbiosis – cancer – candida albicans – bleeding – celiac – crohn’s disease – infections – obstruction – irritable bowel syndrome – h pylori.

Attributes: lack of stability – unable to let go – attachments to thing, people, and places.

Oriental Medicine: the small intestine receives food and beverage elements from the stomach and spleen, which allows the small intestine to separate nutrients from waste byproducts of foods and beverages consumed. At the same time, it sends nutrients to your spleen for the nutritional enrichment of blood, as your bladder and large intestine evacuations waste byproducts from foods.

Small Intestine/ Heart: the small intestine is married to the heart. After the essential nutrients are extracted from foods by the small intestine, your heart circulates them to the cell, tissues, and organs. The heart is the primary organ of circulation of Qi, blood, and body fluids. The heart governs blood, as it controls the contraction of your blood vessels. When there is a disturbance with the heart, it can show up in your facial complexion as red blotchy, rash or inflamed skin. The sensory organ of your heart is your tongue, where it also houses your mind and the consciousness of your spirit. Spontaneous sweating and palpitation are indications there is too much heat in your heart. Small intestine pH balance 1.5 -4.0 -7.2 – 7.5 Stomach pH balance 1.5 – 3.5

PANCREAS

The pancreas is in the left upper abdomen area behind the stomach and reach all the way to the liver and gallbladder. It is an exocrine and endocrine gland with two functions, one of which is to secrete digestive enzymes for the digestion of fats (lipases), carbohydrates (amylase) and proteins (proteases). As an endocrine gland, it maintains the balance of your glucose in the blood through the secretion of insulin. It is one of the digestive organs that does not transport food.

The enzymes of the pancreas are very alkaline and when foods from the stomach are over acidic, the pancreas secretes an extremely large amount of pancreatic juice to buffer the acid to aid in proper digestive.

Insulin assists in the digestion of fats, carbohydrates, proteins and nucleic acids. As an endocrine gland, your pancreas secretes the hormone insulin and glucagon to balance blood sugar levels. Your pancreas releases sodium bicarbonates into the duodenum as an alkaline chemical to neutralize the acidic chyme from the stomach as food elements reach the small intestine to protect the small intestine lining.

Emotions: worry – anxiety – inhibits the secretion of insulin, interrupting the digestive process.

Health Imbalances: pancreatitis – cancer – cystic fibrosis – lack of hormonal secretions –

Attributes: thinking of failing in life – unable to receive the sweetness of life – lack of identifying direction in life – always looking for sweetness – unable to stabilize life. The pH balance of the pancreas – 8.0 – 8.3. Spleen 6.8 – 7.20

Oriental medicine: The pancreas is not recognized in Oriental medicine. Your spleen is recognized in place of the pancreas. As stated above with the stomach/spleen are married and their attributes are discussed.

THE LIVER

The clearinghouse of your body is the liver. The liver is engaged in performing over 500 different functions, which allows it to aid the body in maintaining health and wellbeing. When the liver is out of balance, the entire body is out of balance. The liver has a pH balance of 7.

The liver converts nutrients from food and the gastrointestinal tract into newly enriched blood. This blood is pumped from the liver through the vena cava (large vein) to the heart where it re-circulates fresh blood back into the body.

Many sugars (starch, carbohydrates, sugar, honey, maple syrup) are transformed into glycogen by the liver, and then introduced into the system as glucose for energy. A healthy liver can except large doses of sugar from intestinal blood and converted to glycogen to be slowly released when needed. When your liver is not able to filter sugar, or the sugar is low stored glycogen is converted into glucose to maintain blood sugar concentration.

Your liver also produces blood plasma proteins in the form of clotting factor (vitamin), albumin, and globulins, as well as storing iron and other vitamins.

The liver manufactures bile for the digestion of fats. It then secretes it into the gallbladder for storage before bile is secreted through the common duct into the small intestine. The bile salts assist the intestinal tract in the assimilation of fats by dispersing fat globules through the system. This allows the pancreas's enzyme lipase to break down fat into fatty acids, which empower them to penetrate the intestinal walls.

Bile salts are detergent agents that emulsifies fats and emit bicarbonates, which aid in neutralizing hydrochloric acid. It also moves the fat-soluble vitamins (A, D, E, and K) and trace minerals through the body. The bile salts stimulate normal peristaltic (wave like) conditions in the colon, as well as filters waste out of the body.

The liver/gallbladder plays an interesting role in the storage and distribution of cholesterol within the body. The bile salts are secreted from the liver and stored in the gallbladder until food enters the duodenum (first part of the intestinal tract). Bile is then secreted to assist in fat digestion, turned feces matter and is carried out of the body. With the bile salts, cholesterol and some minerals and vitamins, which are also eliminated from the body.

Emotions: anger – hatred – jealousy – resentment – envy – depression – suppression. These emotions build heat in the liver reducing its ability to detox the blood. It interferes with the flow of Qi and blood. It has the tendencies to cause blood clots, PMS, menopause emotional instability, a bad temper.

Health Imbalances: hypertension – hepatitis – cirrhosis – excessive menstrual flow – irregular menstrual flow – menopause – mental instabilities – lack of blood nutrients – impeding blood circulation – cancer of many types.

Attributes - strengthens and weaknesses of life – storage of emotions – instabilities – lack of self-nurturing – egotistical – confidence – controlling.

Oriental Medicine: Your liver stores blood and detoxifies it before it sends it to the heart for distribution through the smooth flow of Qi (energy). Liver blood also maintains the balance and nourishment of sinews (tendons and ligaments). Your liver's energy manifests in your fingernails and toenails. However, its sensory organ are your eyes. It is maintaining the balance of your Ethereal Soul – mental/physical aspect of your liver, which is an aspect of planning and directing our life. The liver's pH balance is 7.

Liver/Gallbladder: these two are married and they have the same role in Oriental medicine as they do in western medicine, however, in oriental medicine they have more attributes like the Ethereal Soul, their emotions, etc.

GALLBLADDER

The Gallbladder, which is a pear-shaped organ located in the right middle cavity (Jiao) under the liver. The function of the gallbladder is to store, concentrate and secrete bile salts, received from the liver. Bile, which is secreted through the common duct (duodenum) into the small intestines, is a fat (lipid) and cholesterol emulsifier that assists in the absorption of fat vitamins (A.D.E.K.). The pH balance of the gallbladder is 6.80 -7.65

Emotions: anger – hatred – jealousy – resentment – envy reduce the secretion of bile. Inhibits courage. Control's decision making, judgement, courage, and initiative. The same as the liver.

Health Imbalances: gallbladder – cholecystitis – choledocholithiasis – gallbladder cancer – polyps.

Attributes: lack of courage – lack of planning skill - mental confusion – instability in life, fear.

Gallbladder/Liver: they are explained above.

Oriental Medicine: The Gallbladder is considered an extraordinary organ because it stores bile and all other yang organs don't store, they transport.

APPENDIX

The Appendix is a small, sac that looks like fingers extending from the beginning of the colon. It is a member of the immune system producing IgA as it assists in the maturity of B-lymphocytes (a type of white blood cell). It is a storage of sulfur and healthy bacteria.

Health disharmonies: appendicitis.

Emotions: sadness – grief – fear

LARGE INTESTINE

The large intestine fills the abdominal cavity, and it extends from the ileum into the anus. It is comprised of three parts cecum, colon, and rectum. The large intestine has an additional four parts: the ascending colon, transverse colon, descending colon, sigmoid colon, which terminates at the anal opening. The pH balance of the large intestine is 4-6.5

The primary function of the large intestine is to eliminate waste byproducts and undigested foods from the body. The large intestine maintains the body's water balance. It absorbs mineral salts (sodium and chloride) and electrolytes from the foods processed in the digestive tract.

The large intestine is also the site where bacteria are stored. Bacteria and the remaining carbohydrates mix to ferment in the intestinal tract, producing hydrogen, carbon dioxide, and methane gases which is released from the body as gas (flatulence).

Proteins and amino acids are broken down in the intestine into indoles, skatoles, hydrogen sulfide, and fatty acids. Some of the indole and skatole are found in the feces, they are what cause the odor. The feces gets its brown color from bacteria that decomposes bilirubin into urobilinogen. The liver absorbs the rest of indoles, skatole, hydrogen sulfide and fatty acids, converting them into urine.

The bacterium in the large intestines synthesizes and absorbs many vitamins needed for the metabolic process, including some of the B complex vitamins and vitamin K. The large intestine

completes its process through peristaltic (wave like movement in the intestinal tract), which forces fecal material into the rectum and out of the body.

Emotions: sadness – grief – fear - blocks the flow of waste to be evacuated and the reabsorption of water from the bowel.

Health imbalances: dysbiosis – cancer – bleeding – celiac – crohn’s disease – infections – obstruction – irritable bowel syndrome – h pylori

Attributes: holding on to people, places and things – creating blockages in life – obstructing the flow of your blessings in life – fear of what is to come out of life – impeding your life’s forward movement.

Large intestine/Lungs: Your Large intestine and Lungs are married. Your lungs govern Qi, respiration, with the regulation of your blood vessels and channels as they control dispersing and descending of Qi. Your lungs regulate the water passages, meaning they maintain the moisture of the organs. The lungs/large intestine maintain the skin where part of the Wei Qi (immunity) resides. The sensory organ of the lungs is the nose. The Large intestine pH balance 5 – 7, Lungs pH balance 7.35, however, it can fluctuate due to environmental conditions.

BALANCING YOUR MICROBIOME:

The **microbiome** is **essential** for human development, immunity, and nutrition. The bacteria living in and on us are not invaders but beneficial colonizers. Autoimmune diseases such as diabetes, rheumatoid arthritis, muscular dystrophy, multiple sclerosis, lupus, and fibromyalgia are associated with dysfunction in the **microbiome**. Washington University.

Digestive enzymes: assist foods to break down in their proper digestive locations. They assist the body in receiving nutrients.

Probiotics: are elements that promote healthy gut bacteria. They reduce the prevalence of health disharmonies as they enhance immunity. Probiotics are food in the health food stores, some are in the refrigerator and others are on the shelf. During the winter and fall you should take them at night and during spring and summer take them in the morning on an empty stomach.

Some probiotic foods: Yogurt – Kefir – Sauerkraut – Tempeh – Kimchi - Miso