DIGESTIVE SYSTEM TERMINOLOGY

The digestive system includes the mouth, pharynx, esophagus, stomach, small intestine, and large intestine. The liver, gallbladder and pancreas are also involved.

The digestive system carries out five important functions:
- Breaking up food into smaller pieces (mouth).
- Transporting food through the digestive tract by means of muscle contractions (pharynx to the stomach).
- Producing enzymes that speed up chemical changes in food (stomach produces gastric juice).
- Absorbing nutrients into the bloodstream (small intestines with digestive juices from the liver, gallbladder and pancreas complete the breakdown).
- Getting rid of solid wastes (colon or large intestines and leaves through the anus at the end of the rectum).
TERMINOLOGY:

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Meaning</th>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>-emesis</td>
<td>Vomiting</td>
<td>Hematemesis</td>
<td>Vomiting of blood</td>
</tr>
<tr>
<td>Hemat(o)</td>
<td>Blood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-iasis</td>
<td>Diseased condition</td>
<td></td>
<td>Stone in the gallbladder (gallstone)</td>
</tr>
<tr>
<td>Lith (o)</td>
<td>Stone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-ostomy</td>
<td>An opening</td>
<td>Colostomy</td>
<td>Surgical creation of an opening between the colon and the outside of the body, forming an artificial anus</td>
</tr>
<tr>
<td>-phagia</td>
<td>Eating and swallowing</td>
<td>Dysphagia</td>
<td>Difficulty swallowing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Colitis</td>
<td>Inflammation of the colon</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Appendectomy</td>
<td>Surgical removal of the appendix</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gastrorrhea</td>
<td>Excessive secretion of mucus or gastric juices in the stomach</td>
</tr>
</tbody>
</table>

Gastrointestinal Glossary of Terms

**Abdominoperineal resection**: Surgical removal of the anus, rectum and sigmoid colon, resulting in the need for a permanent colostomy.

**Adenoma**: Glandular lesion thought to be the precursor to colorectal cancer.

**Adhesion**: A band of scar tissue that connects two surfaces of the body that are normally separate.

**Air contrast barium enema**: An X-ray examination of the entire large intestine (colon) and rectum in which barium and air are introduced gradually into the colon by a rectal tube. This test is recommended along with flexible sigmoidoscopy every five years, starting at age 50, to screen for colorectal cancer and polyps.

**Anal fissure**: A split or crack in the lining of the anal opening, usually caused by the passage of very hard or watery stools.

**Anastomosis**: A surgical joining of two ducts, blood vessels or bowel segments to allow flow from one to the other.

**Aneurysm**: The abnormal enlargement or bulging of a blood vessel, caused by damage or weakness in the blood vessel wall.

**Angiogram**: A technique that uses dye to highlight blood vessels.

**Anus**: The opening at one end of the digestive tract from which waste is expelled.
**Appendectomy:** Surgical removal of the appendix to treat appendicitis.

**Appendicitis:** Inflammation of the appendix that requires immediate medical attention.

**Appendix:** A small, finger-like tube located where the large and small intestine join. It has no known function.

**Ascites:** Fluid in the abdomen.

**Banding:** A technique via endoscopy that the dilated blood vessels in the esophagus can be removed by putting rubber bands on and eventually fall off to the disappearance of those vessels.

**Barium:** A substance that, when swallowed or given rectally as an enema, makes the digestive tract visible on X-rays (also referred to as a "contrast medium").

**Biliary system:** The gall bladder and bile ducts.

**Biopsy:** Removal of a sample of tissue for study, usually under a microscope.

**Cannulas:** Tubes which hold the laparoscope and instruments, and allow access to the abdominal cavity for performance of laparoscopic surgery.

**Carcinoma:** Malignant (cancerous) growth that tends to invade surrounding tissue and metastasize (travel to and grow in) to other regions of the body. The tumor is firm, irregular and nodular with a well-defined border.

**CAT scan:** Computerized axial tomography, an X-ray technique that produces a film showing a detailed cross-section of tissue.

**Celiac disease:** Digestive disease that damages the small intestine and prevents the proper absorption of nutrients from food. Celiac disease occurs when the body reacts abnormally to gluten, a protein found in wheat, rye, barley and oats. Gluten causes an inflammatory response in the small intestine.

**Cholecystectomy:** Surgical procedure used to remove gallstones from the gallbladder.

**Cholecystitis:** An inflammation of the gallbladder.

**Cirrhosis:** A slowly progressing disease in which healthy liver tissue is replaced with scar tissue, eventually preventing the liver from functioning properly. The scar tissue blocks the flow of blood through the liver and slows the processing of nutrients, hormones, drugs and naturally produced toxins. It also slows the production of proteins and other substances made by the liver.

**Clinical trial:** A research program conducted with patients to evaluate a new medical
treatment, drug or device.

**Colectomy:** The surgical removal of part or all of the colon, performed to treat cancer of the colon or severe, chronic ulcerative colitis.

**Colitis:** See ulcerative colitis.

**Colon:** The last three or four feet of the intestine (except for the last eight inches, which is called the rectum). Synonymous with the "large intestine" or "large bowel."

**Colon cancer:** A malignant (cancerous) tumor arising from the inner wall of the large intestine. Although the exact causes of colon cancer are not known, it appears that both hereditary and environmental factors play a role in its development. The early stages of cancer may have no symptoms. Therefore, regular screening is important.

**Colonoscopy:** An outpatient procedure in which a physician inserts a colonoscope (a long, flexible instrument about 1/2 inch in diameter) in the rectum and advances it to the large intestine (colon) to view the rectum and entire colon.

**Colostomy:** The surgical creation of an opening between the surface of the skin and the colon. Also referred to as a large intestine stoma.

**Constipation:** Difficult, infrequent or incomplete passage of stools. Constipation is usually caused by inadequate fiber in the diet or a disruption of regular routine or diet. Constipation can also be caused by overuse of laxatives. Constipation is rarely the sign of a more serious medical condition.

**Corticosteroids:** Anti-inflammatory drugs (for example, prednisone) used to treat gastrointestinal disorders such as Crohn's disease or ulcerative colitis. These powerful drugs often produce dramatic results but also cause severe side effects when used over a long period.

**Crohn's disease:** A chronic inflammatory disease that involves all layers of the intestinal wall. It primarily affects the lower part of the small intestine, called the ileum, but it can affect any part of the large or small intestine, stomach or esophagus. Crohn's disease can disrupt the normal function of the bowel in a number of ways.

**Diaphragm:** Thin, dome-shaped muscle that separates the abdomen from the chest. When the muscle contracts, the dome flattens, increasing the volume of the chest.

**Diarrhea:** A condition in which bowel movements are passed more often than usual and in a liquid state.

**Digestive diseases:** When a digestive disease occurs, it causes the malfunctioning of the digestive system, so that it is no longer turning food into fuel for energy, maintaining
the body structure or eliminating waste products properly. Digestive diseases range from the occasional upset stomach, to the more life-threatening colon cancer, and encompass disorders of the gastrointestinal tract, liver, gall bladder and pancreas.

**Diverticulitis:** An inflammation or infection of small sacs or outpouchings (diverticula) of the inner lining of the intestine which protrude through the intestinal wall.

**Diverticulosis:** Presence of small sacs or outpouchings (diverticula) of the inner lining of the intestine which protrude through the intestinal wall. These sacs form in weakened areas of the bowel.

**Edema:** Fluid retention.

**Encephalopathy:** Confused thinking and forgetfulness caused by poor liver function, and the diversion of blood flow away from your liver.

**Endoscopy:** A method of physical examination using a lighted, flexible instrument that allows a physician to see the inside of the digestive tract. The endoscope can be passed through the mouth or through the anus, depending on which part of the digestive tract is being examined. This method is referred to by different names depending on the area of examination, such as: esophagoscopy (esophagus), astroscopy (stomach), upper endoscopy (small intestine), sigmoidoscopy (lower part of the large intestine), and colonoscopy (entire large intestine).

**Endosonography:** Also called ultrasound, is a diagnostic tool used to visualize the gastrointestinal organs. High-frequency sound waves are used to produce images and precisely identify abnormalities, such as tumors of the esophagus, stomach, pancreas or rectum. In the rectum, ultrasound can be used to locate the exact position of the tear in a muscle, even before bowel incontinence becomes a problem.

**Enema:** Injection of fluid into the rectum and colon to induce a bowel movement.

**Epidural catheter:** A small tube (catheter) passed into the space between the spinal cord and spinal column. Pain medication is then delivered through the tube, numbing the lower abdominal area.

**Esophageal manometry:** A test used to measure the strength and coordination of the esophagus during swallowing to identify the source of problems in the upper digestive system.

**Esophagus:** The "food pipe" leading from the mouth to the stomach.

**Familial polyposis:** A rare condition, tending to run in families, in which the moist layer of tissue lining the colon (mucosa) is covered with polyps.
**Fecal diversion:** Surgical creation of an opening of part of the colon (colostomy) or small intestine (ileostomy) to the surface of the skin. The opening provides a passageway for stool to exit the body.

**Fecal incontinence:** Inability to retain stool, resulting in bowel accidents.

**Fecal occult blood test (FOBT):** Stool testing for blood, which is recommended every year starting at age 50, in addition to the flexible sigmoidoscopy test every five years, to screen for colon cancer and polyps.

**Fistula:** An abnormal connection that forms between two internal organs or between two different parts of the intestine. This is a common complication of Crohn’s disease.

**Flexible sigmoidoscopy:** A routine outpatient procedure in which a physician inserts a sigmoidoscope (a long, flexible instrument about ½ inch in diameter) in the rectum and advances it to the large intestine (colon) to view the lining of the rectum and the lower third of the large intestine (sigmoid colon).

**Fluoroscopy:** A continuous X-ray technique that allows the physician to observe how an organ performs its normal function; for example, how the esophagus works during swallowing.

**Gallbladder:** A small pear-shaped organ located beneath the liver on the right side of the abdomen. The gallbladder’s primary functions are to store and concentrate bile, and secrete bile into the small intestine to help digest food.

**Gallstone:** Pieces of solid material that develop in the gall bladder when substances in the bile, primarily cholesterol, and bile pigments form hard, crystal-like particles.

**Gas:** A product of digestion that is made primarily of odorless vapors — carbon dioxide, oxygen, nitrogen, hydrogen and sometimes methane. The unpleasant odor is due to bacteria in the large intestine that release small amounts of gases containing sulfur. Everyone has gas and eliminates it by burping or passing it through the rectum. In many instances people think they have too much gas, when in reality they have normal amounts. Most people produce one to three pints of intestinal gas in 24 hours, and pass gas an average of 14 times a day.

**Gastrectomy:** Surgical procedure in which all or part of the stomach is removed.

**Gastric:** Pertaining to the stomach.

**Gastric cancer:** See stomach cancer.

**Gastritis:** An inflammation of the lining of the stomach from any cause, including infection or alcohol.
**Gastroesophageal reflux disease (GERD):** A condition in which acid-containing contents of the stomach travel back up into the esophagus, causing a burning sensation (heartburn).

**Gastroscopy:** Procedure performed along with a biopsy to examine the stomach and esophagus using a thin, lighted tube called a gastroscope, which is passed through the mouth and into the stomach.

**Heartburn:** Heartburn has nothing to do with the heart. It is an uncomfortable feeling of burning and warmth occurring in waves, rising up behind the breastbone (sternum) toward the neck. It is usually due to gastroesophageal reflux, which is the backing up of stomach acid into the esophagus.

**Helicobacter pylori (H. pylori):** A bacterium believed to be a major cause of peptic ulcers.

**Hemorrhoids:** Swollen blood vessels which line the anal opening, caused by excess pressure from the straining during a bowel movement, persistent diarrhea or pregnancy.

**Hepatitis:** A disease in which the liver is inflamed. A viral infection is usually the cause of hepatitis, although sometimes toxins or drugs are the cause.

**Hiatal hernia:** Abnormal bulge or protrusion of a portion of the stomach through a hole in the diaphragm where the esophagus and the stomach join.

**Ileocolectomy:** Surgical removal of a section of the terminal ileum and colon lying close to the ileum (the lowermost part of the small intestine).

**Ileostomy:** The surgical creation of an opening between the surface of the skin and the ileum, the lowermost section of the small intestine.

**Incontinence (bowel):** Loss of bowel control.

**Inflammatory bowel disease (IBD):** Diseases which cause inflammation of the bowel. IBD includes Crohn’s disease and ulcerative colitis.

**Inguinal hernia:** Abnormal bulge or protrusion that can be seen and felt in the groin area (area between the abdomen and thigh). An inguinal hernia develops when a portion of an internal organ, such as the intestine, along with fluid, bulges through a weakened area in the muscular wall of the abdomen.

**Intravenous pyelogram (IVP):** A technique to evaluate the function of the urinary tract by injecting dye into the tract and then viewing its flow by X-ray.

**Irritable bowel syndrome (IBS, also called spastic colon):** A condition in which the
colon muscle contracts more readily and causes abdominal pain and cramps, excess gas, bloating and a change in bowel habits that alternate between diarrhea and constipation.

**Jaundice:** A condition in which the skin and eyes turn yellow because of increased levels of bilirubin in the blood. This happens whenever the flow of bile from the liver to the gallbladder is blocked, when the liver is severely diseased, or when too much bilirubin is produced by excessive red blood cell destruction.

**Kegel exercises:** Exercises performed to strengthen the pelvic floor muscles.

**Lactase:** An enzyme that converts lactose into its more digestible simple sugar components: glucose and galactose. The lactase enzyme is available in liquid form to add to milk or in tablet form to take with solid food.

**Lactose-intolerance:** The inability to digest lactose, the sugar primarily found in milk and dairy products.

**Laparoscopy:** A method of surgery that is much less invasive than traditional surgery. Tiny incisions are made to create a passageway for a special instrument called a laparoscope. This thin telescopelike instrument with a miniature video camera and light source is used to transmit images to a video monitor. The surgeon watches the video screen while performing the procedure with small instruments that pass through small tubes placed in the incisions.

**Large intestine:** This digestive organ is made up of the ascending (right) colon, the transverse (across) colon, the descending (left) colon, and the sigmoid (end) colon. The appendix is also part of the large intestine. The large intestine receives the liquid contents from the small intestine and absorbs the water and electrolytes from this liquid to form feces, or waste.

**Laxative:** Medications that increase the action of the intestines or stimulate the addition of water to the stool to increase its bulk and ease its passage. Laxatives are often prescribed to treat constipation.

**Liver:** One of the most complex and largest organs in the body, which performs more than 5,000 life-sustaining functions.

**Liver disease:** More than 100 types of liver disease have been identified including hepatitis, cirrhosis and liver tumors. When liver disease develops, the liver’s ability to perform its metabolic, detoxification and storage functions is impaired.

**Magnetic resonance imaging (MRI):** A test that produces images of the body without the use of X-rays. MRI uses a large magnet, radio waves and a computer to produce these images.
**Mesentery:** Membranous tissue which carries blood vessels and lymph glands, and attaches various organs to the abdominal wall.

**Muscle transposition:** A procedure in which gluteal (buttock) or gracilis (inner thigh) muscles are used to encircle and strengthen the anal canal. When the inner thigh muscle is used, pacemaker-like electrodes are implanted into the grafted muscle to train it to remain contracted. When the buttock muscle is used, the lower portion of this muscle is freed from the tailbone region and wrapped around the anus to construct a new anus. The buttock muscle transposition does not require the use of a pacemaker.

**Nausea:** A queasy feeling which leads to stomach distress, a distaste for food and an urge to vomit. Nausea is not a disease, but a symptom of many disorders. It can be brought on by systemic illnesses such as influenza, medications, pain and inner ear disease.

**Nitrates:** Substances found in some foods, especially meats, prepared by drying, smoking, salting or pickling. Nitrates are thought to be cancer-causing substances that contribute to the development of stomach cancer.

**Nonsteroidal anti-inflammatory drugs (NSAIDs):** A class of drugs that are effective in reducing inflammation and pain without steroids. Examples of these drugs include aspirin, naproxen and ibuprofen.

**Occult blood:** Blood in the stool that is not always visible to the naked eye. This type of bleeding is detected by performing a laboratory test on a stool sample.

**Pancreas:** An organ behind the stomach next to the duodenum, the first part of the small intestine. The pancreas has two basic functions in the body. It produces enzymes that help break down (digest) food, and hormones (such as insulin) that regulate how the body stores and uses food.

**Pancreatic cancer:** Growth of abnormal cells in the pancreas.

**Pancreatitis:** A rare disease in which the pancreas becomes inflamed. The pancreas, a gland which produces enzymes to digest food, is located next to the duodenum and behind the stomach. The most common causes for pancreatitis are alcohol and gallstones. There are two forms of pancreatitis, acute and chronic. The acute form occurs suddenly and may be a severe, life-threatening illness with many complications. Usually, the patient recovers completely. A chronic form of the disease may develop if injury to the pancreas continues, such as when a patient persists in drinking alcohol, bringing severe pain and reduced functioning of the pancreas that affects digestion and causes weight loss.

**Paracentesis:** The removal of the accumulation of fluid in the abdomen.
**Pathology:** The study of the characteristics, causes and effects of a disease

**PCA:** Abbreviation for Patient Controlled Analgesia. A method of administering pain medication directly into a patient's circulatory system through a vein (usually in the arm or hand) or directly to the nerves that perceive lower abdominal pain (epidural area). Delivery of pain medicine is activated by the patient pushing a request button.

**Peptic ulcer disease:** A disorder in which sores or ulcers form on the tissue lining the stomach or the first part of the small intestine (duodenum).

**Peristalsis:** The means by which food is propelled through the esophagus in a series of muscular contractions. This same process is used by the intestines to propel digested food and waste.

**Polyps (colon):** Small, non-cancerous growths on the inner colon lining that may develop into cancer. Colon polyps and the early stages of cancer can have no symptoms. Therefore, regular screening is important.

**Portal hypertension (colon):** An increase in the pressure within the portal vein (the vein that carries blood from the digestive organs to the liver.) This increase in pressure is caused by a blockage of blood flow through the liver. Increased pressure in the portal vein causes large veins to develop across the esophagus and stomach to bypass the blockage. These varices are fragile and bleed easily, causing internal bleeding.

**Proctosigmoidectomy:** An operation that removes a diseased section of the rectum and sigmoid colon.

**Pulse oximetry:** Photoelectric device which measures the percent of oxygenation in the blood using a clip on the finger. Also measures the heart rate.

**Radiology:** A branch of medicine that uses radioactive substances and visual devices to diagnose and treat a wide variety of diseases.

**Rectal bleeding:** A symptom of digestive problems rather than a disease. Bleeding can occur as a result of a number of different conditions, many of which are not life-threatening. Most causes of bleeding are related to conditions that can be cured or controlled, such as hemorrhoids. However, rectal bleeding may be an early sign of rectal cancer so it is important to locate the source of the bleeding.

**Rectal prolapse:** Dropping down of the rectum outside the anus.

**Rectopexy:** Surgical placement of internal sutures (stitches) to secure the rectum in its proper position.

**Rectum:** The chamber connected to the large intestine which receives solid waste
(feces) from the descending colon to be expelled from the body.

**Risk factor:** A characteristic or event that predisposes a person to a certain condition.

**Sclerotherapy:** The use of sclerosing chemicals to treat varicosities such as hemorrhoids or esophageal varices.

**Shunt:** The joining between two veins to reduce pressure and stop bleeding varices.

**Small intestine:** The portion of the digestive tract that first receives food from the stomach. It is divided into three sections: the duodenum, the jejunum and the ileum. As food travels through the small intestine it is further broken down by enzymes, and nutrients from the food are absorbed into the bloodstream.

**Sphincteroplasty:** Or rectal sphincter repair, is the most common procedure used to correct a defect in the anal sphincter muscles. There are two anal muscles that control bowel movements, similar to two round doughnuts, one inside of the other. If a defect exists in the complete circle of muscle, the problem can be corrected with this surgery. During the sphincteroplasty, the two ends of the muscle are cut and overlapped onto one another, then sewn in place. This procedure then restores the complete circle of muscle.

**Stoma:** An artificial opening of the intestine to outside the abdominal wall.

**Stomach (gastric) cancer:** Disease in which cancer cells are found in the lining of the stomach. Stomach cancer can develop in any part of the stomach and may spread throughout the stomach to other organs.

**Swallowing problems:** Swallowing and esophageal disorders may be temporary, or they may be an indication of a serious medical problem. Swallowing disorders have many causes, including nerve and muscle problems, head and neck injuries and cancer, or they may occur as the result of a stroke. Certain medications — such as antidepressants, antibiotics, heart medications and some drugs used in chemotherapy for cancer — can contribute to a swallowing problem.

**Thrombosis:** A blood clot.

**Total abdominal colectomy:** Surgical removal of the entire colon.

**Trocar:** Sharp, pointed instrument used to make a puncture incision in the abdominal wall. Used for placement of cannulas.

**Ulcerative colitis:** A disease that causes inflammation and sores, called ulcers, in the top layers of the lining of the large intestine. The inflammation usually occurs in the rectum and lower part of the colon, but it may affect the entire colon. Ulcerative colitis
rarely affects the small intestine except for the lower section, called the ileum.

**Ulcers:** A break in the lining of the stomach or in the first part of the small intestine (the duodenum), a result of an imbalance between digestive fluids (hydrochloric acid and pepsin) in the stomach and the duodenum. Much of that imbalance is related to infection with the bacterium Helicobacter pylori (H. pylori). This disease is now curable with antibiotics.

**Ultrasound:** A test used to diagnose a wide range of diseases and conditions in which high-frequency sound waves, inaudible to the human ear, are transmitted through body tissues. The echoes vary according to the tissue density. The echoes are recorded and translated into video or photographic images that are displayed on a monitor.

**Urea breath test:** A test used to detect urease, an enzyme produced by Helicobacter pylori (H. pylori), a type of bacteria that usually infects the stomach or duodenum (first part of the small intestine).

**Variceal bleeding:** A complication of cirrhosis caused by portal hypertension. Increased pressure in the portal vein causes large veins to develop across the esophagus and stomach to bypass the blockage. These varices are fragile and bleed easily, causing internal bleeding.

**Varices:** Large, swollen veins that develop across the stomach and esophagus that cause internal bleeding.

**Vomiting:** The forcible expulsion of the contents of the stomach through the mouth which occurs with symptoms of nausea. Vomiting is not a disease but a symptom of many disorders.