CD Part 5

Digestive System Diseases

A. Definitions

The following definitions are for words used in this chapter and during the SSA disability process. If you need additional definitions, consult a good medical dictionary, available in most bookstores and libraries. You can also look at online medical dictionaries like the one at www.medlineplus.gov.

Abdominal distention. Enlargement of the abdomen, as with *ascites* or intestinal gas.

Abdominal paracentesis. Puncture of the abdominal wall for the purpose of obtaining a sample of ascites for diagnostic purposes or to drain ascitic fluid.

Abscess. Infection occurring as a localized collection of pus.

Albumin. Protein made only in the liver; accounts for half of the protein in the blood stream. Serves as a carrier for numerous bodily substances, as well as some drugs. Normal albumin levels are about 3.5–5.0 grams/deciliter (gm/dl or gm/100 ml).

Anemia. Low red blood cell count usually determined by a decrease in the *hematocrit*.

Angiography. Any technique to produce images of arteries, such as by x-rays or MRI scans. Usually involves injection of contrast material into the artery to make it visible. Also known as *arteriography*.

Anorexia. Loss of appetite. Anorexia is a frequent problem in chronic diseases, including cancer.

Ascites. Abnormal accumulation of fluid in the abdomen. A frequent cause of ascites is liver failure associated with alcoholism.

Atresia. Failure of an organ or tissue to develop during embryonic life. For example, failure of the aortic valve of the heart to develop is known as aortic valve atresia.

Barium enema. X-ray study of the large intestine following an enema of barium contrast material.

Barium swallow. X-ray study of the esophagus taken after swallowing barium contrast material.

Bile. Greenish-brown liquid excreted by the liver. It is stored in the gallbladder and flows down ducts to enter the duodenum during the digestion of food. Bile is important in facilitating the digestion of fats.

Biliary cirrhosis. Liver damage resulting from disorders of the bile duct system.

Bilirubin. Brownish-yellow breakdown product of the hemoglobin in red blood cells. Bilirubin is made in the liver and excreted in the bile. Normal blood total bilirubin is about 0.3–1.0 milligrams/deciliter (mg/dl or mg/100 ml).

Biopsy. The process of taking a sample of tissue for detailed analysis of various kinds. Biopsy specimens are observed grossly with the eyes, microscopically with a variety of possible tissue stains, and in some cases may involve specific chemical and DNA analysis.

Bowel. Intestine.

Cardiac cirrhosis. Liver damage caused by congestive heart failure.

Carotene. Any of the four forms of colored substances naturally found in food. These fat-soluble carotenes will be at a normal level in the blood with adequate nutrition and absorption from the intestine.

Cicatrix. A scar. As an example of usage, a narrowing of the esophagus caused by scarring is said to be a *cicatricial stenosis* of the esophagus.

Cirrhosis. Form of advanced liver disease characterized by bands of fibrous degeneration that may be thought of as a type of scarring inside the liver.

Colectomy. Removal of a part of the colon. A *total colectomy* means removal of the entire colon.

Colon. The large intestine.

Colostomy. Surgically placed opening from the colon through the abdominal wall to the outside of the body.

Common bile duct. Final part of the bile duct system (biliary tree) that empties bile into the small intestine.

Computerized axial tomography (CAT Scan, CT Scan). Multiple x-ray "slices" analyzed by a computer and made into detailed images.

Crohn's disease. See *regional enteritis*.

Digestion. Process of changing food into chemicals that can be absorbed and used by the body.

Digestive tract. Route food moves through the mouth, esophagus, stomach, and intestines. Also known as the *alimentary trac*t.

Dilation. Enlargement of an opening or tubular structure such as intestine or artery. Also known as *dilatation*.

Distention. See *abdominal distention*.

Dumping syndrome. Symptoms (sweating, abdominal fullness and distention, rumbling sound

from the movement of intestinal gas, nausea, sleepiness, diarrhea, syncope, chest palpitations, or fatigue) occurring after eating a meal. Only a few symptoms are usually present. Dumping syndrome is associated with the rapid emptying of stomach contents into the small intestine, especially if a person has had a partial gastrectomy with anastomosis (surgically placed openings between organs or vessels) of the jejunum of the small intestine to the stomach.

Duodenum. First part of the small intestine starting from the stomach.

Endoscopic retrograde cholangiopancreatography (ERCP). Procedure involving insertion of a fiberoptic endoscope through the mouth, esophagus, stomach, and into the first part of the small intestine (duodenum). The pancreatic and bile ducts can be examined and x-rays made by injection of contrast material into these ducts. X-rays of the bile ducts are known as cholangiograms and x-rays of the pancreatic ducts (the duct that carries digestive enzymes from the pancreas to the small intestine) are pancreatograms. ERCP may be used to remove pancreatic duct stones and to biopsy suspicious tumors. ERCP is a more complex form of upper gastrointestinal endoscopy.

Endoscopy. Procedure involving direct visual examination of a hollow organ like the esophagus, stomach, or intestine. Most endoscopy is fiberoptic endoscopy, which means use of a flexible tube that can be manipulated. Some endoscopes have special names related to their function. For example, a fiberoptic endoscope used to see the inside of the colon is called a colonoscope and an endoscope used to see the inside of the bronchi of the lungs is a bronchoscope. Endoscopes usually permit their operators to do more than just look—typically, an endoscope can be used to take biopsies or photographs and inject drugs, oxygen, air, or salt solution.

Enema. Procedure of injecting liquid into the rectum to facilitate x-rays or for other purposes.

Esophageal varices. Varicose veins along the inside surface of the esophagus.

Esophagitis. Inflammation of the esophagus. The most common cause of esophagitis is gastroesophageal reflux, movement of acid stomach contents up into the esophagus, known as "heartburn."

Fatty cirrhosis. Disorder characterized by infiltration of the liver with yellow fat. May be a finding in alcoholism, but there are also other causes.

Fistula. Abnormal opening between internal body structures or from the inside to outside of the body.

Gallbladder. The small, muscular sac that stores bile. The gallbladder is located up close to the bottom of the liver.

Gastrectomy. Removal of a part of the stomach. A total gastrectomy means removal of the entire stomach.

Gastric ulcer. Area of tissue destruction in the mucosa of the stomach.

Gastroesophageal reflux (GER). Movement of acid stomach contents up into the esophagus, popularly known as heartburn. When GER is excessive and chronic it is referred to as *gastroesophageal reflux disease (GERD).*

Gastrointestinal tract (GI tract). The stomach and intestines.

Gastroparesis. Paralysis of the muscles that normally contract the stomach. Gastroparesis is commonly caused by diabetes mellitus.

Glycogen storage diseases. Genetic metabolic disorders involving abnormal enzymes needed for the proper metabolism of glycogen.

Granulomatous colitis. Regional enteritis that affects the large intestine alone.

Guaiac testing. A simple method for testing for blood in the stool that can be performed at the bedside or used at home. However, many factors can cause false-positive results.

Hematocrit (Hct). The percentage of red blood cells in a volume of blood. For example, a hematocrit of 50% means that half of the blood volume is made up of red cells. In men, a normal Hct is about 42%–48% and in women about 38%–44% at sea level. At high altitudes, normal values are higher. Also known as the *volume of packed red cells (VPRC).*

Hemochromatosis. A rare disorder resulting in deposits of an excessive amount of an iron compound (hemosiderin) in the cells of multiple organs, including the liver.

Hepatic encephalopathy. Brain dysfunction and mental confusion associated with advanced liver failure.

Hepatic enzymes. Liver enzymes such as aspartate aminotransferase (AST), alanine aminotransferase (ALT), serum glutamic pyruvic transaminase (SGPT), serum gamma glutamyl transpeptidase (SGGT), and alkaline phosphatase and lactic dehydrogenase (LDH). AST is also known as serum glutamic oxaloacetic transaminase (SGOT). SGPT is also known as *alanine aminotransferase (ALT).*

Hepatitis. Inflammation of the liver. A common cause of hepatitis is alcohol abuse. Other causes include viruses, toxins, and drugs.

Hyperglycemia. Abnormally high blood glucose.

Hypoalbuminemia. Decreased blood albumin levels.

Hypoglycemia. Abnormally low blood glucose.

Ileostomy. A surgically placed opening from the ileum of the small intestine through the abdominal wall to the outside of the body.

Ileum. Third part of the small intestine.

Inferior vena cava (IVC). Large vein carrying venous blood back to the heart from the lower part of the body.

Inflammatory bowel disease (IBD). Diseases causing inflammatory damage to the inner mucosal lining of the intestine. Examples of IBD are *regional enteritis, granulomatous colitis*, and *ulcerative colitis.* Also known as *enterocolitis.*

Intestinal mucosa. The specialized layer of cells that line the inside of the intestine. It is vital to the absorption of nutrients from digested food.

Intestines. The intestines are the small intestine (duodenum, jejunum, and ileum) and large intestine (colon). Also known as *bowels.*

Iris. Pigmented eye muscle that controls the size of the pupil.

Iritis. Inflammation of the iris; may be caused by a number of different diseases.

Jejunum. The second part of the small intestine.

Ketosis. The production of excessive amounts of chemicals called ketone bodies, associated with severe and uncontrolled diabetes.

Laënnec's cirrhosis. Cirrhosis caused by alcoholism.

Liver enzymes. See *hepatic enzymes.*

Lower gastrointestinal (lower GI). Occurring in the large intestine.

Magnetic resonance imaging (MRI). Method of producing pictures of internal body structures using magnetic fields and radiofrequency fields. MRIs do not utilize x-rays or other radiation.

Malabsorption. Decreased ability to absorb nutrients from the intestine.

Malassimilation. Decreased ability to transform absorbed nutrients into living tissue.

Melena. A black discoloration of feces resulting from the digestion of blood. Melena indicates bleeding somewhere in the upper gastrointestinal tract where blood can be digested.

Metabolic cirrhosis. Liver damage caused by metabolic diseases like *hemochromatosis*, *Wilson's disease*, and *glycogen storage diseases.*

Motility disorders. Disorders that interfere with normal movement of the esophagus, stomach, or intestines. For example, diabetes mellitus may cause *gastroparesis.*

Mucosa. The layer of cells lining the inner surface of the mouth, esophagus, stomach, and intestines.

Obstruction. Blockage.

Occult blood (stool). Blood that is present in such small quantities that melena is not visible to the eye. However, occult blood can be detected with guaiac and other tests.

Ostomy. Surgical procedure involving placement of an opening between hollow organs or to the outside of the body through the abdominal wall. For example, a *colostomy* is a surgically placed opening (stoma) from the colon through the abdominal wall.

Palpitations. Sensations in the chest of forceful, irregular, or rapid heart beats.

Pancreatic duct. The duct carries digestive enzymes from the pancreas to the small intestine.

Pancreatic pseudocyst. An abnormal cavity in the pancreas, often as a result of abdominal trauma. The only difference between a pseudocyst and an ordinary cyst is that a pseudocyst is not lined with cells.

Pancreatitis. Inflammation of the pancreas. Common causes of pancreatitis are alcohol abuse and abdominal trauma.

Paracentesis. See *abdominal paracentesis.*

Peptic ulcer disease (PUD). Gastric ulcers (area of tissue destruction in the mucosa of the stomach) or duodenal ulcers (area of tissue destruction in the duodenum) caused by a combination of bacterial infection, acid, and digestive enzymes.

Percentile. A percentile is a method of comparing something (like height or weight) to normal expected values, in order to decide the chance (probability) that it is normal or abnormal. For example, a person with a weight in the 60th percentile is heavier than 60% of other people and lighter than 40% of other people.

Plication procedure. A surgical procedure for tucking down esophageal varices to decrease the likelihood of rupture and bleeding.

Portacaval shunt. Surgically placed conduits between the portal vein and the inferior vena cava. The purpose of such shunts is to treat portal hypertension by lowering the pressure inside of the portal venous system.

Portal hypertension. High blood pressure inside the portal venous system. A common cause of portal hypertension is alcoholism.

Portal vein. The portal vein carries nutrient-rich blood from the intestine to the liver.

Prothrombin time (PT). Measurement of the blood coagulation activity of a liver-manufactured protein known as prothrombin. In advanced liver disease, the prothrombin time increases. Normal PT is about 11–14 seconds. The PT must be interpreted in terms of a "control value" that is always included in the laboratory report. To be normal, the PT should be less than two seconds longer than the control.

Rectum. The rectum is the final section of the large intestine.

Reflux esophagitis. Inflammation of the esophageal mucosa as a result of the movement of acid stomach contents back up into the esophagus.

Regional enteritis. Inflammatory disease of unknown cause principally affecting the small intestine. When regional enteritis affects both the small and large intestines it is known as *ileocolitis*. Regional enteritis affecting the large intestine alone is called *granulomatous colitis*. Regional enteritis may also produce inflammation of the eye (*iritis*) and arthritis.

Serum. The clear liquid part of blood after clotting. Most blood tests measure values in serum.

Shunt procedures (as used by digestive system listings). Surgeries connecting the portal venous system to another venous system in order to lower the pressure inside of the portal vein. For example, a portacaval shunt connects the portal vein to the inferior vena cava. By decreasing the pressure inside of the portal venous system, esophageal varices are made less likely to rupture and bleed. See *portal hypertension*.

Stenosis. Narrowing.

Stoma. An opening, usually referring to the opening of an ostomy, such as a *colostomy* or *ileostomy*. The opening between two pieces of intestine that have been surgically connected (anastomosis) is also referred to as a stoma.

Stricture. Type of narrowing caused by scarring—a *cicatricial stenosis*.

Ulcerative colitis. An inflammatory disease of unknown cause affecting the large intestine. If the disease is confined to the rectum, it is known as *ulcerative proctitis*.

Ultrasound (of abdomen). Procedure using high-frequency sound reflected from structures inside the abdomen to construct images. Abdominal ultrasound is quick, painless, and safe. Ultrasound studies may be directed toward specific structures such as the liver.

Upper gastrointestinal (upper GI). Occurring in the stomach or small intestine. The esophagus is usually included in the meaning of the term. For example, bleeding in the esophagus is usually considered an upper GI hemorrhage.

Upper gastrointestinal endoscopy. Fiberoptic endoscopic examination of the esophagus, stomach, and small intestine. Can be used to diagnose and even treat a number of disorders including esophageal varices, esophageal tumors, esophagitis, esophageal scarring with narrowing (stricture), peptic ulcers, and bleeding sites. Also known as *esphagogastroduodenoscopy (EGD)*.

Upper gastrointestinal series (upper GI series). X-rays taken after the patient swallows barium x-ray contrast material. The esophagus, stomach, and small intestine can be visualized on these x-rays.

Vagotomy and pyloroplasty (V & P). Vagotomy means surgically cutting branches of the vagus nerve that go to the stomach and that are involved in the stimulation of acid secretion from glands in the stomach. A pyloroplasty is an incision into and surgical reconstruction the bottom part of the stomach (pylorus) to relieve obstruction caused by peptic ulcer disease. Vagotomy and pyloroplasty surgery has become uncommon with the development of

powerful medications to control acid secretions from the stomach.

Varicose vein. Enlarged vein.

Wilson's disease. A very rare genetic disorder causing abnormal copper metabolism and resulting in the deposit of an excessive amount of copper in multiple organs, including the liver.

B. General Information

The digestive system is a long series of tubes and pouches that transport, process, and absorb nutrients from food. The digestive process starts in the mouth and ends in the small intestine. The large intestine does not digest food; its purpose is essentially water absorption and storage. Absorption of food nutrients occurs only in the small intestine; there is no food absorption in the stomach.

The SSA considers digestive system disorders to fall into three broad categories:

- interference with nutrition, such as occurs with malabsorption syndromes
- multiple recurrent inflammatory lesions, such as occur with inflammatory bowel diseases like regional enteritis, and
- complications of disease, such as abscesses, fistulas, or intestinal obstruction.

Most digestive disorders respond to treatment, and therefore few people satisfy the 12-month duration requirement to receive disability. In other situations, the SSA may predict that improvement will take place even if you are markedly impaired at the time of application for disability. The people most likely to qualify for disability have a long documented history of digestive problems that satisfy the severity of the listings.

Some common digestive system disorders are rarely disabling. Frequently, individuals with colostomies or ileostomies have no significant functional limitations regarding the ability to work. Some claimants who have had these surgical procedures, however, have special problems with care of the abdominal surgical opening (stoma) or malnutrition associated with their underlying disorder and surgery. The symptoms of dumping syndrome rarely produce significant functional limitations nor do they last 12 months. Peptic ulcer disease usually responds to treatment, even if recurrent after surgery.

Nonetheless, digestive-related nutritional disorders in children can affect growth and development. Also, children may have congenital malformations of the digestive tract that require surgical intervention at an early age.

Documentation of digestive system disorders must include history and physical examinations, x-rays, surgical findings, and endoscopic or biopsy reports that objectively demonstrate such disease to be present.

C. Specific Listings and Residual Functional Capacity

The listings that follow are in the federal regulations. They have bee interpreted and commented on for greater ease of understanding while explaining their requirements. It is impossible to discuss here all of the medical possibilities related to every kind of disorder, and you may need to seek help from your treating doctor to more fully understand how your particular impairment relates to these listings. The discussion of residual functional capacity does not apply to children.

1. Listing 5.02: Upper Gastrointestinal Bleeding (Adults)

This listing concerns only bleeding from the upper part of the GI tract, which means the esophagus, stomach, or small intestine. The most common causes of such bleeding are peptic ulcers and ruptured esophageal varices. Most sources of upper GI bleeding can be identified and controlled with treatment in far less than 12 months. This listing applies only to those rare cases in which the bleeding site cannot be found and in which serious bleeding continues to be a problem. Such bleeding is evidenced by the presence of anemia as measured by the hematocrit (Hct).

a. Listing Level Severity

For your condition to be severe enough to meet the listing, you must have recurrent upper GI bleeding from an undetermined cause with anemia

manifested by a hematocrit of 30% or less on repeated examinations. The SSA does not define the term "recurrent." Medical judgment must be applied on an individual basis, depending on how much the disorder affects your ability to function. The more severe and prolonged the anemia, the fewer episodes it would take to be disabling. In order for the hematocrit to remain 30% or less for 12 months as a result of bleeding, there would either have to be persistent bleeding or fairly frequent episodes of bleeding.

b. Residual Functional Capacity

The SSA has no definite rules, but if you have an unidentified source of upper GI bleeding, it is doubtful that you should receive an RFC for heavy work. If you are young, otherwise healthy, and your hematocrit is nearly normal you might be able to tolerate medium work. However, once your hematocrit drops to a persistent level of 35% or lower your RFC should be light work or less. If your Hct is persistently close to that required by the listing—that is, 31% or 32%—a sedentary RFC would be reasonable. The SSA should take into account several other factors when determining your RFC:

- Your RFC may be reduced by the fatigue resulting from anemia.
- The more severe your anemia, the faster your resting heart rate as your body attempts to compensate for your anemia. Because your heart must work harder, it will have less reserve for exercise.
- An unidentified source of upper GI bleeding could be worsened by excessive exertion because an increase in blood pressure normally accompanies exertion.
- Other disorders, such as heart or lung disease, may be worsened by anemia.

Individuals differ in their response to anemia. Young people tend to tolerate anemia much better than older people do. Also, a person can adjust better to anemia resulting from slow blood loss than a sudden loss.

2. Listing 5.03: Narrowing or Obstruction of the Esophagus (Adults)

Partial or complete obstruction of the esophagus can result from stenosis caused by stricture, tumors, or other diseases that injure the esophagus. For example, reflux esophagitis can damage the inner mucosal surface of the esophagus resulting in esophageal narrowing over a period of years. Connective tissue diseases such as progressive systemic sclerosis (PSS) can result in fibrotic degeneration of the esophagus so that it becomes narrowed. Whatever the cause, long-term narrowing of the esophagus even in the absence of complete obstruction may be severe enough to make adequate nutrition difficult. For purposes of the listing, the cause of esophageal obstruction is not as important as the malnutrition it causes.

a. Listing Level Severity

For your condition to be severe enough to meet the listing, you must have partial or complete obstruction of the esophagus, by any disorder, that produces weight loss qualifying under Listing 5.08. The esophageal disorder must be documented with x-rays or by direct visualization with endoscopy.

b. Residual Functional Capacity

Your RFC depends not only on your weight, but also on your overall nutritional state and the underlying cause of the esophageal obstruction. A person with esophageal narrowing caused by acid reflux from the stomach might be able to eat by having their esophagus periodically dilated. A narrowing caused by an esophageal cancer may produce numerous other problems, however, such as treatment side effects, an abnormal metabolic state induced by the cancer, and severe pain. Similarly, a claimant with esophageal narrowing caused by a connective tissue disease like progressive systemic sclerosis can have numerous other problems related to that disorder which increase overall severity. Medical judgment must be applied on an individual basis.

3. Listing 105.03: Narrowing or Obstruction of the Esophagus (Children)

The comments under Listing 5.03 apply here. Additionally, children may have congenital narrowing of the esophagus or even absence of the esophagus (esophageal atresia). Also, drinking caustic liquids like lye can cause severe scarring and consequent narrowing of the esophagus.

a. Listing Level Severity

For a child's condition to be severe enough to meet the listing, the child must have partial or complete obstruction of the esophagus by any disorder that produces weight loss qualifying under Listing 105.08. The esophageal disorder must be documented with x-rays or by direct visualization with endoscopy.

4. Listing 5.04: Peptic Ulcer Disease (Adults)

Peptic ulcer disease (PUD) refers to ulcers in the stomach or duodenum occurring as a result of several factors, including digestive enzymes, stomach acid, and the presence of a particular type of bacteria (Helicobacteria pylori). The major risk of PUD is life-threatening bleeding, and PUD is a frequent cause of upper GI bleeding. If an ulcer is known to be the source of bleeding, it can almost always be controlled. Unknown causes of bleeding are considered under Listing 5.02.

The listing requires that PUD be proven, not merely suspected. That requires x-rays by an upper gastrointestinal series or endoscopy.

a. Listing Level Severity

For your condition to be severe enough to meet the listing, you must have peptic ulcer disease as demonstrated by x-rays or by direct visualization with endoscopy. Additionally, you must satisfy Ⓐ, Ⓑ, Ⓒ, or Ⓓ, below.

Ⓐ Recurrent ulceration after definitive surgery persistent despite therapy. The recurrence must be demonstrated by x-rays or endoscopy, just as the original ulcer must be proven to exist. Impairment resulting from ulcer recurrence must be expected to last 12 months. Definitive surgery is that which was intended to control the ulcer, such as vagotomy and pyloroplasty or partial (subtotal) gastrectomy.

Ⓑ Inoperable fistula. For example, an ulcer might penetrate from inside to outside of the small intestine where it starts and then penetrate from outside to inside of another nearby piece of intestine. This could leave a fistula between the insides of the two areas of intestine that would normally not be present. Or the ulcer could penetrate the intestine and become attached to the pancreas, resulting in a fistula between the two. This would be a quite serious and painful situation. A fistula might be inoperable if, for example, scarring from the ulcer and prior surgeries contraindicate attempts at further repair.

Ⓒ Recurrent obstruction of the intestine demonstrated on x-rays or endoscopy. Such obstruction would most likely be caused by scarring related to the ulcer, even if the ulcer itself were successfully treated. Ulcers that occur repeatedly are probably more likely to result in this situation, as well as larger ulcers.

Ⓓ Weight loss as described under Listing 5.08. Malnutrition could be an issue with PUD. It is important that your weight be accurately measured without shoes or other significant clothing that would falsely add to your weight and work to your disadvantage.

b. Residual Functional Capacity

Medical judgment must determine your RFC for a case of PUD that is not severe enough to meet a listing. Factors to be considered include your functional limitations imposed by pain and other symptoms, the number and length of your hospitalizations, your responses to treatment, and especially your weight as an indication of nutritional state and strength. See the RFC discussion under Listing 5.08.

When the SSA first created this listing, highly effective drugs now used to control stomach acidity were not available. Also, medicine did not know how bacteria contribute to ulcers; today, the offending bacteria can be eradicated to decrease the chance of recurrence. It is unusual for a person to satisfy this listing if that person has received proper medical care and also complied with the prescribed treatment.

5. Listing 5.05: Chronic Liver Disease (Adults)

Most adult claimants alleging disability on the basis of liver disease have alcoholic liver damage, either as alcoholic liver inflammation (alcoholic hepatitis) or fibrous shrinkage of the liver secondary to alcohol abuse known as alcoholic cirrhosis.

Many other disorders can damage the liver, including genetic disorders, toxins, poisons, drugs,

bacterial infections, heart failure, fungi, ulcerative colitis, parasites, and viruses. Viral hepatitis may be caused by hepatitis viruses A, B, C, D, E, or G. Other viral infections can affect the liver but are not classified as viral hepatitis types. Chronic active hepatitis and chronic persistent hepatitis can result from infectious or toxic insults to the liver.

a. Listing Level Severity

For your condition to be severe enough to meet the listing, you must have chronic liver disease. Additionally, you must satisfy Ⓐ, Ⓑ, Ⓒ, Ⓓ, Ⓔ, or Ⓕ, below.

Ⓐ Esophageal varices (demonstrated by x-rays or endoscopy) with a documented history of massive hemorrhage attributable to these varices. You would be considered disabled for three years following the last massive hemorrhage; thereafter, the SSA would evaluate the residual impairment. This listing recognizes that portal hypertension resulting from cirrhosis can cause varicose veins in the esophagus, which then have a tendency to bleed. The SSA does not define massive hemorrhage, but hospitalization and blood transfusion would probably be required.

Ⓑ Performance of a shunt operation for esophageal varices. You would be considered disabled for three years following surgery; thereafter, the SSA would evaluate the residual impairment. You satisfy this listing if your condition is so severe that you required surgery for a shunt operation—such as a portacaval shunt—to decrease pressure in your portal venous system and lower the risk of bleeding from esophageal varices.

Ⓒ Serum total bilirubin of 2.5 mg/100 ml (2.5 mg/deciliter) or greater that persists on repeated examinations for at least five months. Total bilirubin is divided into direct (conjugated) and indirect (unconjugated) bilirubin. The SSA must use the total; partial values will be lower and your claim could be erroneously denied. The SSA does not define repeated examinations; medical judgment must be applied. Advanced liver disease with extremely high bilirubin blood levels would most likely last at least five months, but this is affected by the prognosis for the particular liver disease. In all cases, a blood test of bilirubin levels must be made sometime near the beginning and end of the five-month period.

Ⓓ Ascites, not attributable to other causes, recurrent or persisting for at least five months, demonstrated by abdominal paracentesis or associated with hypoalbuminemia of 3.0 grams/100 ml (3.0 grams/deciliter) or less. Ascites can be suspected on physical examination by a doctor; however, the listing requires confirmation by paracentesis (done by your treating doctor) or by measurement of blood albumin. Albumin tends to decline when you have ascites.

Ⓔ Hepatic encepalopathy. This would be evaluated under the criteria of mental disorder listing 12.02 (Chapter 27). Hepatic encephalopathy is a state of confusion associated with elevated levels of blood ammonia, which the diseased liver cannot handle.

Ⓕ Confirmation of chronic liver disease by liver biopsy. Because the SSA will not order you to undergo a liver biopsy, this listing applies only if your treating doctor has done one. You must also satisfy 1, 2, or 3.

1. Ascites, not attributable to other causes, recurrent or persisting for at least three months, demonstrated by abdominal paracentesis or associated with hypoalbuminemia of 3.0 grams/100 ml (3.0 grams/deciliter) or less. This is the same as part Ⓓ, except only three months is required.
2. Serum total bilirubin of 2.5 mg/100 ml (2.5 mg/deciliter) or greater on repeated examinations for at least three months. This is the same as part Ⓒ, except only three months is required.
3. Hepatic cell death (necrosis) or inflammation (hepatitis), persisting for at least three months, documented by repeated abnormalities of prothrombin time (PT) and elevated enzymes indicative of liver dysfunction. Laboratories vary widely on the expected normal values of hepatic enzymes because of differences in measurement techniques. Test report results, however, should include normal values against which the results can be compared. It is not necessary that all of the various types of enzymes be measured. AST or ALT would normally be sufficient.

b. Residual Functional Capacity

Many different RFC levels are possible, depending on the severity of the liver disease. Medical judgment must be applied on the basis of the underlying liver disease, nutritional state, prognosis, and your symptoms. Easy fatigability, nausea, and abdominal pain may be limiting factors. If your liver is extremely enlarged, you must be careful to avoid abdominal trauma because of the danger of rupture. If you have ascites, it is doubtful the SSA should give you an RFC for more than light work. The SSA needs to know how your daily activities are affected—preferably in your treating doctor's medical records. For example, does nausea limit your eating? Do you get tired and short of breath with certain activities? What activities?

6. Listing 105.05: Chronic Liver Disease (Children)

Many disorders can damage a child's liver, including genetic disorders, toxins, poisons, drugs, bacterial infections, heart failure, fungi, ulcerative colitis, parasites, and viruses. Viral hepatitis may be caused by hepatitis viruses A, B, C, D, E, or G. Other viral infections can affect the liver but are not classified as viral hepatitis types. Chronic active hepatitis and chronic persistent hepatitis can result from infectious or toxic insults to the liver.

a. Listing Level Severity

For the child's condition to be severe enough to meet the listing, the child must have chronic liver disease. Additionally, the child's condition must satisfy Ⓐ, Ⓑ, Ⓒ, Ⓓ, Ⓔ, or Ⓕ, below.

Ⓐ Inoperable biliary atresia demonstrated by x-ray or surgery. Biliary atresia is a genetic disorder characterized by an absent bile duct system in the liver.

Ⓑ Ascites not responding to treatment and not attributable to other causes. A serum albumin of 3.0 grams/100 ml (3.0 grams/deciliter) or less must also be present. Ascites is a sign of advanced liver disease and will result in a low serum albumin blood test.

Ⓒ Esophageal varices demonstrated by angiography, barium swallow, endoscopy, or by prior performance of a specific shunt or plication procedure. If one of the tests does not show the disease, a shunt or plication procedure is sufficient proof because the surgery otherwise would not have been performed. Unlike adults, bleeding from the varices is not required.

Ⓓ Hepatic coma, documented by findings from hospital records.

Ⓔ Hepatic encephalopathy evaluated under mental Listing 112.02. (See CD Part 12.)

Ⓕ Chronic active inflammation or liver cell death documented by an SGOT, persistently measuring 100 units or a serum bilirubin of 2.5 mg/100 mg (2.5 mg/deciliter or 2.5 mg/dl) or greater.

7. Listing 5.06: Chronic Ulcerative or Granulomatous Colitis (Adults)

Ulcerative and granulomatous colitis are inflammatory diseases of unknown cause that affect the large intestine. They may be associated with several symptoms and other abnormalities that result in disability. The diagnosis must be first established by one of the methods mentioned in the listing, however.

a. Listing Level Severity

For your condition to be severe enough to meet the listing, you must have chronic ulcerative or granulomatous colitis (demonstrated by endoscopy, barium enema, biopsy, or operative findings) along with Ⓐ, Ⓑ, Ⓒ, Ⓓ, or Ⓔ, below.

Ⓐ Recurrent bloody stools documented on repeated examinations and anemia manifested by a hematocrit of 30% or less on repeated examinations. Bloody stools not only indicate uncontrolled disease, but also can result in significant blood loss. The SSA does not define recurrent; medical judgment is applied case by case. The more severe and prolonged the anemia, the fewer episodes would be required to be disabling. A minimum of three different hematocrits, reasonably spread out over three to six months, is required to conclude that the severity will last a year.

Ⓑ Persistent or recurrent systemic manifestations, such as arthritis, iritis, fever, or liver dysfunction,

not attributable to other causes. The SSA does not define recurrent; medical judgment is applied case by case. The more severe and prolonged the abnormalities, the fewer episodes would be required for the disease to be disabling.

Ⓒ Intermittent obstruction due to abscesses, fistula formation, or narrowing of the intestine that does not respond to treatment. The SSA does not define intermittent; medical judgment must be applied case by case. The more severe and prolonged the abnormalities, the fewer episodes would be required for the disease to be disabling.

Ⓓ Recurrence of findings of part Ⓐ, Ⓑ, or Ⓒ after total colectomy. The colon is called the target organ for ulcerative or granulomatous colitis, and improvement would normally be expected after its removal. Recurrence, even once, of any of the abnormalities Listed in part Ⓐ, Ⓑ, or Ⓒ despite colectomy is a sign of continuing disabling severity.

Ⓔ Weight loss as described under Listing 5.08. Malnutrition with significant weight loss can be a significant problem. Your weight must be accurately measured without shoes or other significant clothing that would falsely add to your weight and work to your disadvantage.

b. Residual Functional Capacity

No absolute RFCs exist. The SSA applies medical judgment to each case depending on the nature of the underlying disorder, symptoms, functional limitations, treatment response, and prognosis. Also see the discussion of RFC under Listing 5.08. If you are anemic, see the discussion of RFC under Listing 5.02.

8. Listing 5.07: Regional Enteritis (Adults)

Regional enteritis is an inflammatory disease of unknown cause affecting the small intestine. When regional enteritis affects only the large intestine it is known as granulomatous colitis, which is evaluated under Listing 5.06. When regional enteritis affects both the small and large intestines it is known as ileocolitis, which can be evaluated under either listing.

a. Listing Level Severity

For your condition to be severe enough to meet the listing, you must have regional enteritis (demonstrated by findings during surgery, endoscopy, x-rays with barium contrast, or biopsy). Additionally, you must satisfy part Ⓐ, Ⓑ, Ⓒ, or Ⓓ below.

Ⓐ Persistent or recurrent intestinal obstruction. The SSA must have evidence of clinical abnormalities expected of obstruction—abdominal pain, abdominal distention, nausea, and vomiting. X-ray findings of obstruction must also be present: dilation of the intestine just before the obstruction. Obstruction results from the inflammatory nature of the disease that can produce scarring, abscesses, or fistulas. The SSA does not define recurrent; medical judgment must be applied case by case. The more severe and prolonged your abnormalities, the fewer episodes would be required to be considered disabling.

Ⓑ Persistent or recurrent systemic manifestations such as arthritis, iritis, fever, or liver dysfunction, not attributable to other causes. The SSA does not define recurrent; medical judgment must be applied case by case. The more severe and prolonged the abnormalities, the fewer episodes would be required to be disabling.

Ⓒ Intermittent intestinal obstruction due to abscess or fistula formation. Unlike in part Ⓐ, clinical abnormalities such as nausea and vomiting are not required. The SSA does not define recurrent; medical judgment must be applied case by case. The more severe and prolonged the abnormalities, the fewer episodes would be required to be disabling.

Ⓓ Weight loss as described under Listing 5.08. Malnutrition with significant weight loss can be a significant problem. Your weight must be accurately measured without shoes or other significant clothing that would falsely add to your weight and work to your disadvantage.

b. Residual Functional Capacity

No absolute RFCs exist. The SSA applies medical judgment to each case depending on the nature of the underlying disorder, symptoms, functional limitations, treatment response, and prognosis. Also see the

discussion of RFC under Listing 5.08. If you are anemic, see the discussion of RFC under Listing 5.02.

9. Listing 105.07: Chronic Inflammatory Bowel Disease (Children)

Chronic inflammatory bowel disease (chronic IBD) usually means ulcerative colitis, regional enteritis, or granulomatous colitis. Any inflammatory disorder of the intestine, however, could qualify. In addition to the complications that can afflict adults with IBD, children may also suffer decreased growth as a result of such chronic disease.

a. Listing Level Severity

For the child's condition to be severe enough to meet the listing, the child must have chronic inflammatory bowel disease (demonstrated by findings during surgery, endoscopy, x-rays with barium contrast, or biopsy). Additionally, the child's condition must satisfy Ⓐ, Ⓑ, or Ⓒ, below.

Ⓐ Intestinal manifestations or complications, such as obstruction, abscess, or fistula formation that has lasted or is expected to last 12 months.

Ⓑ Malnutrition as described under Listing 105.08.

Ⓒ Growth impairment as described in Listing 100.03. (See CD Part 1.)

10. Listing 5.08: Weight Loss (Adults)

Weight loss is a potentially disabling problem that most digestive system disorders have in common. A wide variety of medical problems can result in weight loss; it is very important in disability determination.

When medical evidence has established a primary or secondary digestive tract disorder, the resultant interference with nutrition is considered under this listing. The difference between primary or secondary digestive disorders is made by the SSA, but it is not necessary for you to understand. You just need to know that any physical disorder that sufficiently interferes with the function of the digestive tract can potentially satisfy this listing.

Examples of primary gastrointestinal (GI) disorders that can cause weight loss include:

- Various forms of inflammatory bowel disease, such as regional enteritis and ulcerative colitis.
- Inflammation of the mucosa lining the inside of the intestines.
- Chronic inflammation of the pancreas (chronic pancreatitis). When the pancreas is damaged, it cannot produce the digestive enzymes needed for digestion or absorption.
- Surgical removal of stomach or intestine (gastrointestinal resection). This can result in a limited ability to intake adequate amounts of food as well as a decrease in the amount of intestine available for the digestion of food and the absorption of food nutrients.
- Esophageal stenosis, including narrowing caused by scarring (stricture).
- Disorders resulting in the intestinal mucosa's malabsorption of nutrients, including bacterial growth in the small intestine, drugs, genetic diseases, damage by radiation, parasitic infections, diabetes mellitus, inflammatory bowel diseases, autoimmune disorders, and surgery on the GI tract. Decreased pancreatic function, such as that caused by cystic fibrosis, may also result in malabsorption.
- Disorders resulting in the body's malassimilation of nutrients, including chronic kidney failure and cancer. Type I diabetes mellitus can also cause malassimilation.
- Obstructions in the digestive tract such as by tumors, abscesses, or stenosis that interfere with the ability to get food to locations where it can be properly digested and absorbed. For example, chronic peptic ulcer disease (PUD) may cause not only pain that discourages adequate food intake, but also scarring in the stomach or upper part of the small intestine which interferes with food transit from the stomach into the intestines.
- Loss of appetite accompanying digestive system disorders. Chronic illness itself may cause anorexia.
- Pain associated with digestive disorders causing restriction of food intake, especially if eating causes increased pain. Most serious digestive system disorders cause pain.

Weight loss caused by nondigestive system impairments, such as hormonal or mental disorders, should be evaluated under the appropriate listings for those disorders. One exception is Type I (juvenile)

diabetes, a hormonal disorder caused by the immune system's damage to the insulin-producing cells of the pancreas with resultant decrease in the production of insulin and an abnormal metabolic state. Type I diabetes is considered by part Ⓑ4 of the listing. Understand that Type II (adult onset) diabetes is a different disease, and usually associated with obesity, not weight loss.

Another exception is the serious mental disorder known as anorexia nervosa. A person with anorexia nervosa would probably be granted benefits under a mental disorder listing. In addition, persistence of weight loss under Tables I or II (part Ⓐ of the listing) is justification for an allowance, even with no physical disorder.

a. Listing Level Severity

For your condition to be severe enough to meet the listing, you must have weight loss due to any persisting gastrointestinal disorder. (The weights in Tables I–IV must have persisted for at least three months despite prescribed therapy and must be expected to persist for at least 12 months.) You must also satisfy Ⓐ or Ⓑ, below.

Note that the tables list whole numbers only. Many people's heights or weights fall in between the figures given in the tables. If your height is one-half inch or more over a value, the SSA should use the next higher value. For example, if you are 67.5 inches, consider yourself 68 inches. This is to your advantage in that you can weigh three pounds more at 68 inches than 67 inches and still qualify under the listing.

If your weight is less than one-half of a value, the SSA should use the lower value. For example, if you weigh just under 109.5 pounds, consider yourself 109 pounds.

Paying attention to such details can easily make the difference between being granted and being denied benefits. Say you are a male with the height and weight given above, 67.5 inches and 109.5 pounds. Without rounding off both values, you would fail to qualify under Table I; by rounding off you would be granted benefits. Do not assume that the SSA will pay attention to such detail.

Accuracy is important. Height and weight must be accurately documented in medical records. The SSA often has trouble determining height and weight because of the different values reported in various records. If you are at your treating doctor's office, hospital, or other health facility or at a consultative examination for the SSA, make sure that your height and weight are actually measured—don't give some numbers you think are accurate and let them be written into your record. Your height should be measured without shoes, and you should not be weighed with any more clothing than is required for modesty—a couple of pounds of excess clothing, or heavy items in your pockets, can erroneously put you over the weight tables.

Ⓐ Weight equal to or less than the values specified in Table I or Table II.

Table I—Men

Height (inches, no shoes)	Weight (pounds)
61	90
62	92
63	94
64	97
65	99
66	102
67	106
68	109
69	112
70	115
71	118
72	122
73	125
74	128
75	131
76	134

Table II—Women	
Height (inches, no shoes)	**Weight (pounds)**
58	77
59	79
60	82
61	84
62	86
63	89
64	91
65	94
66	98
67	101
68	104
69	107
70	110
71	114
72	117
73	120

Table I—Men	
Height (inches, no shoes)	**Weight (pounds)**
61	95
62	98
63	100
64	103
65	106
66	109
67	112
68	116
69	119
70	122
71	126
72	129
73	133
74	136
75	139
76	143

Ⓑ Weight equal to or less than the values specified in Table III or IV. Also 1, 2, 3, 4, 5, 6, or 7 must be satisfied.

1. Serum albumin of 3.0 grams per deciliter (3.0 gm/100 ml) or less.
2. Hematocrit of 30% or less. This indicates anemia.
3. Serum calcium of 8.0 mg per deciliter (8.0 mg/100 ml or 4.0 meq/L) or less. This indicates poor nutrition.
4. Uncontrolled diabetes mellitus due to abnormal function of the pancreas, with repeated episodes of hyperglycemia, hypoglycemia, or ketosis.
5. Fat in stool of seven grams or greater per 24-hour stool specimen. This indicates malabsorption of fat.
6. Nitrogen in the stool of three grams or greater per 24-hour specimen. This indicates malabsorption of proteins.
7. Persistent or recurrent ascites or edema not attributable to other causes. This can indicate advanced protein malnutrition.

Table II—Women	
Height (inches, no shoes)	**Weight (pounds)**
58	82
59	84
60	87
61	89
62	92
63	94
64	97
65	100
66	104
67	107
68	111
69	114
70	117
71	121
72	124
73	128

b. Residual Functional Capacity

Your degree of weight loss, the disease causing your weight loss, and your symptoms all influence the RFC. Medical judgment is applied case by case; the SSA has no specific rules for RFCs in weight loss impairments. If you are close to the severity of the listing, however, your RFC should be for sedentary work at most. This would be the case, for example, if your weight is a few pounds over the requirement in Table I or II, or if your weight qualifies in Table III or IV, but you don't meet the laboratory values under part Ⓑ 1–7.

If anemia is a problem for you, also see the discussion of RFC under Listing 5.02.

11. Listing 105.08: Weight Loss (Children)

The comments under Listing 5.08 regarding gastrointestinal disorders apply here. Because a child's normal weight varies with age, percentile rankings are used instead of tables of weights. A child old enough—such as a teenager—to satisfy the heights in Tables I–IV of Listing 5.08 can be evaluated under that listing. Any doctor who treats children should have a standard growth chart. You child's doctor should also have a record of your child's weight at different ages. If the doctor has not kept good records, your child's disability decision could be delayed, because the SSA needs several weights over a period of months to verify the persistence of the malnutrition.

a. Listing Level Severity

For the child's condition to be severe enough to meet the listing, the child must have malnutrition due to gastrointestinal disease with either:

- weight loss resulting in a fall of at least 15 percentiles on standard growth charts which persists, or
- persistence of weight that is less than the third percentile on standard growth charts.

Additionally, the child's condition must satisfy Ⓐ, Ⓑ, Ⓒ, or Ⓓ, below.

Ⓐ Stool fat excretion per 24 hours satisfying 1, 2, or 3.
1. More than 15% in infants less than six months.
2. More than 10% in infants six to 18 months.
3. More than 6% in children more than 18 months.

Ⓑ Persistent hematocrit of 30% or less despite prescribed therapy.

Ⓒ Serum carotene of 40 micrograms (mcg)/100 ml or less.

Ⓓ Serum albumin of 3.0 grams/100 ml or less.

12. Listing 5.09: Liver Transplant (Adults)

About 87% of patients survive for one year after a liver transplant. At five years, the post-transplant survival rate decreases by approximately 10%. In adults, acquired disorders like alcoholic cirrhosis and viral hepatitis are the main causes of liver failure and the need for transplantation. In children, liver failure is more commonly caused by a genetic disorder (especially failure of the bile ducts to develop, a disorder known as biliary atresia). Although most livers are transplanted from deceased donors, an increasingly popular option is to receive part of a living donor's liver.

As with other types of organ transplants, the major problem is suppression of the immune system, a deliberate medical step to prevent rejection of the graft. Unfortunately, this suppressed immunity can lead to the development of serious infections: viral, fungal, bacterial, and parasitic. Immune suppression also increases the chances of developing cancer, particularly lymphoma.

Other side effects of the medications and other risks are the same as those found with all organ transplants, such as the development of osteoporosis, cataracts (resulting from corticosteroids), intense itching, kidney and brain toxicity, nausea, vomiting, diabetes, and high blood pressure.

Liver transplants require close monitoring for immune rejection and other complications, particularly infections. The first year after transplantation is particularly important, although problems can develop at any time.

a. Listing Level Severity

If you have had a liver transplant, the SSA will automatically consider you to be disabled for one year following surgery. After that, your residual impairment will be evaluated under whatever listings are appropriate to your particular situation, such as those covering the digestive system.

You qualify for these first 12 months of disability benefits without any restrictions whatsoever. For

example, you could be feeling great eight months after surgery and your doctor could even tell the SSA she thinks you could work. But you would still qualify under the listing, if you wished to make use of your benefits.

b. Residual Functional Capacity

Because you're automatically entitled to benefits, no RFC applies to liver transplants. After the required 12 months have gone by, your case will be evaluated under whichever listings are appropriate to your circumstances. The SSA is hesitant to terminate SSA benefits to people who've received liver transplants, unless the person himself, and his doctor, think he's ready to return to some kind of work. Still, there is a good possibility that you could feel much improved and return to light work after a liver transplant.

13. Listing 105.09: Liver Transplant (Children)

The comments under Listing 3.11 for adults apply here, even though the particular types of liver disease that may lead to a transplant often differ in children (see CD Part 3).

a. Listing Level Severity

A child is considered disabled for one year following surgery and, like adults, no other medical factors can alter this qualification. After that, the child's residual impairment is evaluated under whatever digestive system or other listings are appropriate. ■