

Medicaid Disability Manual

105.00 DIGESTIVE SYSTEM

A. What kinds of disorders do we consider in the digestive system?

Disorders of the digestive system include gastrointestinal hemorrhage, hepatic (liver) dysfunction, inflammatory bowel disease, short bowel syndrome, and malnutrition. They may also lead to complications, such as obstruction, or be accompanied by manifestations in other body systems. Congenital abnormalities involving the organs of the gastrointestinal system may interfere with the ability to maintain adequate nutrition, growth, and development.

B. What documentation do we need?

We need a record of your medical evidence, including clinical and laboratory findings. The documentation should include appropriate medically acceptable imaging studies and reports of endoscopy, operations, and pathology, as appropriate to each listing, to document the severity and duration of your digestive disorder. We may also need assessments of your growth and development. Medically acceptable imaging includes, but is not limited to, x-ray imaging, sonography, computerized axial tomography (CAT scan), magnetic resonance imaging (MRI), and radionuclide scans. *Appropriate* means that the technique used is the proper one to support the evaluation and diagnosis of the disorder. The findings required by these listings must occur within the period we are considering in connection with your application or continuing disability review.

C. How do we consider the effects of treatment?

1. Digestive disorders frequently respond to medical or surgical treatment; therefore, we generally consider the severity and duration of these disorders within the context of the prescribed treatment.
2. We assess the effects of treatment, including medication, therapy, surgery, or any other form of treatment you receive, by determining if there are improvements in the symptoms, signs, and laboratory findings of your digestive disorder. We also assess any side effects of your treatment that may further limit your functioning.
3. To assess the effects of your treatment, we may need information about:
 - a. The treatment you have been prescribed (for example, the type of medication or therapy, or your use of parenteral (intravenous) nutrition or supplemental enteral nutrition via a gastrostomy);
 - b. The dosage, method, and frequency of administration;
 - c. Your response to the treatment;
 - d. Any adverse effects of such treatment; and
 - e. The expected duration of the treatment.
4. Because the effects of treatment may be temporary or long-term, in most cases we need

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information about the impact of your treatment, including its expected duration and side effects, over a sufficient period of time to help us assess its outcome. When adverse effects of treatment contribute to the severity of your impairment(s), we will consider the duration or expected duration of the treatment when we assess the duration of your impairment(s).

5. If you need parenteral (intravenous) nutrition or supplemental enteral nutrition via a gastrostomy to avoid debilitating complications of a digestive disorder, this treatment will not, in itself, indicate that you have marked and severe functional limitations. The exceptions are 105.07, short bowel syndrome, and 105.10, for children who have not attained age 3 and who require supplemental daily enteral feedings via a gastrostomy (see 105.00F and 105.00H).

6. If you have not received ongoing treatment or have not had an ongoing relationship with the medical community despite the existence of a severe impairment(s), we will evaluate the severity and duration of your digestive impairment on the basis of current medical and other evidence in your case record. If you have not received treatment, you may not be able to show an impairment that meets the criteria of one of the digestive system listings, but your digestive impairment may medically equal a listing or functionally equal the listings.

D. How do we evaluate chronic liver disease?

1. *General. Chronic liver disease* is characterized by liver cell necrosis, inflammation, or scarring (fibrosis or cirrhosis), due to any cause, that persists for more than 6 months. Chronic liver disease may result in portal hypertension, cholestasis (suppression of bile flow), extrahepatic manifestations, or liver cancer. (We evaluate liver cancer under 113.03.) Significant loss of liver function may be manifested by hemorrhage from varices or portal hypertensive gastropathy, ascites (accumulation of fluid in the abdominal cavity), hydrothorax (ascitic fluid in the chest cavity), or encephalopathy. There can also be progressive deterioration of laboratory findings that are indicative of liver dysfunction. Liver transplantation is the only definitive cure for end stage liver disease (ESLD).

2. *Examples of chronic liver disease* include, but are not limited to, biliary atresia, chronic hepatitis, non-alcoholic steatohepatitis (NASH), primary biliary cirrhosis (PBC), primary sclerosing cholangitis (PSC), autoimmune hepatitis, hemochromatosis, drug-induced liver disease, Wilson's disease, and serum alpha-1 antitrypsin deficiency. Children can also have congenital abnormalities of abdominal organs or inborn metabolic disorders that result in chronic liver disease. Acute hepatic injury is frequently reversible as in viral, drug-induced, toxin-induced, and ischemic hepatitis. In the absence of evidence of a chronic impairment, episodes of acute liver disease do not meet 105.05.

3. *Manifestations of chronic liver disease.*

a. *Symptoms* may include, but are not limited to, pruritis (itching), fatigue, nausea, loss of appetite, or sleep disturbances. Children can also have associated developmental delays or poor school performance. Symptoms of chronic liver disease may have a poor correlation with the severity of liver disease and functional ability.

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b. *Signs* may include, but are not limited to, jaundice, enlargement of the liver and spleen, ascites, peripheral edema, and altered mental status.

c. *Laboratory findings* may include, but are not limited to, increased liver enzymes, increased serum total bilirubin, increased ammonia levels, decreased serum albumin, and abnormal coagulation studies, such as increased International Normalized Ratio (INR) or decreased platelet counts. Abnormally low serum albumin or elevated INR levels indicate loss of synthetic liver function, with increased likelihood of cirrhosis and associated complications. However, other abnormal lab tests, such as liver enzymes, serum total bilirubin, or ammonia levels, may have a poor correlation with the severity of liver disease and functional ability. A liver biopsy may demonstrate the degree of liver cell necrosis, inflammation, fibrosis, and cirrhosis. If you have had a liver biopsy, we will make every reasonable effort to obtain the results; however, we will not purchase a liver biopsy. Imaging studies (CAT scan, ultrasound, MRI) may show the size and consistency (fatty liver, scarring) of the liver and document ascites (see 105.00D6).

4. *Chronic viral hepatitis infections.*

a. *General.*

(i) *Chronic viral hepatitis* infections are commonly caused by hepatitis C virus (HCV), and to a lesser extent, hepatitis B virus (HBV). Usually, these are slowly progressive disorders that persist over many years during which the symptoms and signs are typically nonspecific, intermittent, and mild (for example, fatigue, difficulty with concentration, or right upper quadrant pain). Laboratory findings (liver enzymes, imaging studies, liver biopsy pathology) and complications are generally similar in HCV and HBV. The spectrum of these chronic viral hepatitis infections ranges widely and includes an asymptomatic state; insidious disease with mild to moderate symptoms associated with fluctuating liver tests; extrahepatic manifestations; cirrhosis, both compensated and decompensated; ESLD with the need for liver transplantation; and liver cancer. Treatment for chronic viral hepatitis infections varies considerably based on age, medication tolerance, treatment response, adverse effects of treatment, and duration of the treatment. Comorbid disorders, such as HIV infection, may affect the clinical course of viral hepatitis infection(s) or may alter the response to medical treatment.

(ii) We evaluate all types of chronic viral hepatitis infections under 105.05 or any listing in an affected body system(s). If your impairment(s) does not meet or medically equal a listing, we will consider the effects of your hepatitis when we assess whether your impairment(s) functionally equals the listings.

b. *Chronic hepatitis B virus (HBV) infection.*

(i) *Chronic HBV infection* is diagnosed by the detection of hepatitis B surface antigen (HBsAg) in the blood for at least 6 months. In addition, detection of the hepatitis B envelope antigen (HBeAg) suggests an increased likelihood of progression to cirrhosis and ESLD.

(ii) The therapeutic goal of treatment is to suppress HBV replication and thereby prevent progression to cirrhosis and ESLD. Treatment usually includes a combination of interferon injections and oral antiviral agents. Common adverse effects of treatment are the same as noted in 105.00D4c(ii) for HCV, and generally end within a few days after treatment is discontinued.

c. *Chronic hepatitis C virus (HCV) infection.*

(i) *Chronic HCV infection* is diagnosed by the detection of hepatitis C viral RNA in the blood for at least 6 months. Documentation of the therapeutic response to treatment is also monitored

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by the quantitative assay of serum HCV RNA (“HCV viral load”). Treatment usually includes a combination of interferon injections and oral ribavirin; whether a therapeutic response has occurred is usually assessed after 12 weeks of treatment by checking the HCV viral load. If there has been a substantial reduction in HCV viral load (also known as early viral response, or EVR), this reduction is predictive of a sustained viral response with completion of treatment. Combined therapy is commonly discontinued after 12 weeks when there is no early viral response, since in that circumstance there is little chance of obtaining a sustained viral response (SVR). Otherwise, treatment is usually continued for a total of 48 weeks.

d. Combined interferon and ribavirin treatment may have significant adverse effects that may require dosing reduction, planned interruption of treatment, or discontinuation of treatment. Adverse effects may include: Anemia (ribavirin-induced hemolysis), neutropenia, thrombocytopenia, fever, cough, fatigue, myalgia, arthralgia, nausea, loss of appetite, pruritis, and insomnia. Behavioral side effects may also occur. Influenza-like symptoms are generally worse in the first 4 to 6 hours after each interferon injection and during the first weeks of treatment. Adverse effects generally end within a few days after treatment is discontinued.

Extrahepatic manifestations of HBV and HCV. In addition to their hepatic manifestations, both HBV and HCV may have significant extrahepatic manifestations in a variety of body systems. These include, but are not limited to: Keratoconjunctivitis (sicca syndrome), glomerulonephritis, skin disorders (for example, lichen planus, porphyria cutanea tarda), neuropathy, and immune dysfunction (for example, cryoglobulinemia, Sjögren’s syndrome, and vasculitis). The extrahepatic manifestations of HBV and HCV may not correlate with the severity of your hepatic impairment. If your impairment(s) does not meet or medically equal a listing in an affected body system(s), we will consider the effects of your extrahepatic manifestations when we determine whether your impairment(s) functionally equals the listings.

5. *Gastrointestinal hemorrhage* (105.02 and 105.05A). Gastrointestinal hemorrhaging can result in hematemesis (vomiting of blood), melena (tarry stools), or hematochezia (bloody stools). Under 105.02, the required transfusions of at least 10 cc of blood/kg of body weight must be at least 30 days apart and occur at least three times during a consecutive 6-month period. Under 105.05A, *hemodynamic instability* is diagnosed with signs such as pallor (pale skin), diaphoresis (profuse perspiration), rapid pulse, low blood pressure, postural hypotension (pronounced fall in blood pressure when arising to an upright position from lying down) or syncope (fainting). Hemorrhaging that results in hemodynamic instability is potentially life threatening and therefore requires hospitalization for transfusion and supportive care. Under 105.05A, we require only one hospitalization for transfusion of at least 10 cc of blood/kg of body weight.

6. *Ascites or hydrothorax* (105.05B) indicates significant loss of liver function due to chronic liver disease. We evaluate ascites or hydrothorax that is not attributable to other causes under 105.05B. The required findings must be present on at least two evaluations at least 60 days apart within a consecutive 6-month period and despite continuing treatment as prescribed.

7. *Spontaneous bacterial peritonitis* (105.05C) is an infectious complication of chronic liver disease. It is diagnosed by ascitic peritoneal fluid that is documented to contain an absolute neutrophil count of at least 250 cells/mm³. The required finding in 105.05C is satisfied with one evaluation documenting peritoneal fluid infection. We do not evaluate other causes of

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peritonitis that are unrelated to chronic liver disease, such as tuberculosis, malignancy, and perforated bowel, under this listing. We evaluate these other causes of peritonitis under the appropriate body system listings.

8. *Hepatorenal syndrome* (105.05D) is defined as functional renal failure associated with chronic liver disease in the absence of underlying kidney pathology. Hepatorenal syndrome is documented by elevation of serum creatinine, marked sodium retention, and oliguria (reduced urine output). The requirements of 105.05D are satisfied with documentation of any one of the three laboratory findings on one evaluation. We do not evaluate known causes of renal dysfunction, such as glomerulonephritis, tubular necrosis, drug-induced renal disease, and renal infections, under this listing. We evaluate these other renal impairments under 106.00ff.

9. *Hepatopulmonary syndrome* (105.05E) is defined as arterial deoxygenation (hypoxemia) that is associated with chronic liver disease due to intrapulmonary arteriovenous shunting and vasodilatation, in the absence of other causes of arterial deoxygenation. Clinical manifestations usually include dyspnea, orthodeoxia (increasing hypoxemia with erect position), platypnea (improvement of dyspnea with flat position), cyanosis, and clubbing. The requirements of 105.05E are satisfied with documentation of any one of the findings on one evaluation. In 105.05E1, we require documentation of the altitude of the testing facility because altitude affects the measurement of arterial oxygenation. We will not purchase the specialized studies described in 105.05E2; however, if you have had these studies at a time relevant to your claim, we will make every reasonable effort to obtain the reports for the purpose of establishing whether your impairment meets 105.05E2.

10. *Hepatic encephalopathy* (105.05F).

a. *General.* Hepatic encephalopathy usually indicates severe loss of hepatocellular function. We define hepatic encephalopathy under 105.05F as a recurrent or chronic neuropsychiatric disorder, characterized by abnormal behavior, cognitive dysfunction, altered state of consciousness, and ultimately coma and death. The diagnosis is established by changes in mental status associated with fleeting neurological signs, including “flapping tremor” (asterixis), characteristic electroencephalographic (EEG) abnormalities, or abnormal laboratory values that indicate loss of synthetic liver function. We will not purchase the EEG testing described in 105.05F3b. However, if you have had this test at a time relevant to your claim, we will make every reasonable effort to obtain the report for the purpose of establishing whether your impairment meets 105.05F.

b. *Acute encephalopathy.* We will not evaluate your acute encephalopathy under 105.05F if it results from conditions other than chronic liver disease, such as vascular events and neoplastic diseases. We will evaluate these other causes of acute encephalopathy under the appropriate body system listings.

11. *End stage liver disease (ESLD) documented by scores from the SSA Chronic Liver Disease (SSA CLD) calculation (105.05G1) and SSA Chronic Liver Disease-Pediatric (SSA CLD-P) calculation (105.05G2).*

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a. *SSA CLD score.*

(i) If you are age 12 or older, we will use the SSA CLD score to evaluate your ESLD under 105.05G1. We explain how we calculate the SSA CLD score in a(ii) through a(vii) of this section.

(ii) To calculate the SSA CLD score, we use a formula that includes three laboratory values: Serum total bilirubin (mg/dL), serum creatinine (mg/dL), and International Normalized Ratio (INR). The formula for the SSA CLD score calculation is:

9.57 ×	[Loge(serumcreatininmg/dL)]
+ 3.78 ×	[Loge(serumtotalbilirubinmg/dL)]
+ 11.2 ×	[Loge(INR)]
+ 6.43	

(iii) When we indicate “Loge” in the formula for the SSA CLD score calculation, we mean the “base e logarithm” or “natural logarithm” (ln) of a numerical laboratory value, not the “base 10 logarithm” or “common logarithm” (log) of the laboratory value, and not the actual laboratory value. For an example of SSA CLD calculation, see 5.00D11c.

(iv) For any SSA CLD score calculation, all of the required laboratory values must have been obtained within 30 days of each other. If there are multiple laboratory values within the 30-day interval for any given laboratory test (serum total bilirubin, serum creatinine, or INR), we will use the highest value for the SSA CLD score calculation. We will round all laboratory values less than 1.0 up to 1.0.

(v) Listing 105.05G requires two SSA CLD scores. The laboratory values for the second SSA CLD score calculation must have been obtained at least 60 days after the latest laboratory value for the first SSA CLD score and within the required 6-month period. We will consider the date of each SSA CLD score to be the date of the first laboratory value used for its calculation.

(vi) If you are in renal failure or on dialysis within a week of any serum creatinine test in the period used for the SSA CLD calculation, we will use a serum creatinine of 4, which is the maximum serum creatinine level allowed in the calculation, to calculate your SSA CLD score.

(vii) If you have the two SSA CLD scores required by 105.05G1, we will find that your impairment meets the criteria of the listing from at least the date of the first SSA CLD score.

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b. SSA CLD-P score.

(i) If you have not attained age 12, we will use the SSA CLD-P score to evaluate your ESLD under 105.05G2. We explain how we calculate the SSA CLD-P score in b(ii) through b(vii) of this section.

(ii) To calculate the SSA CLD-P score, we use a formula that includes four parameters: Serum total bilirubin (mg/dL), International Normalized Ratio (INR), serum albumin (g/dL), and whether growth failure is occurring. The formula for the SSA CLD-P score calculation is:

4.80 ×	[Loge(serum total bilirubin mg/dL)]
+ 18.57 ×	[Loge(INR)]
- 6.87 ×	[Loge(serum albumin g/dL)]
+ 6.67 if the child has growth failure (<-2 standard deviations for weight or height)	

~~(iii) When we indicate “Loge” in the formula for the SSA CLD-P score calculation, we mean the “base e logarithm” or “natural logarithm” (ln) of a numerical laboratory value, not the “base 10 logarithm” or “common logarithm” (log) of the laboratory value, and not the actual laboratory value. For example, if a female child is 4.0 years old, has a current weight of 13.5 kg (10th percentile for age) and height of 92 cm (less than the third percentile for age), and has laboratory values of serum total bilirubin 2.2 mg/dL, INR 1.0, and serum albumin 3.5 g/dL, we will compute the SSA CLD-P score as follows:~~

4.80 ×	[Loge(serum total bilirubin 2.2 mg/dL) = 0.788]
+ 18.57 ×	[Loge(INR 1.0) = 0]
- 6.87 ×	[Loge(serum albumin 3.5 g/dL) = 1.253]
+ 6.67 if the child has growth failure (<-2 standard deviations for weight or height)	
= 3.78 + 0 - 8.61 + 6.67	
= 1.84, which is then rounded to an SSA CLD-P score of 2	

~~(iv) For any SSA CLD-P score calculation, all of the required laboratory values (serum total bilirubin, INR, or serum albumin) must have been obtained within 30 days of each other. We will not purchase INR values for children who have not attained age 12. If there is no INR value for a child under 12 within the applicable time period, we will use an INR value of 1.1 to~~

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calculate the SSA CLD-P score. If there are multiple laboratory values within the 30-day interval for any given laboratory test, we will use the highest serum total bilirubin and INR values and the lowest serum albumin value for the SSA CLD-P score calculation. We will round all laboratory values less than 1.0 up to 1.0.

(v) The weight and length/height measurements used for the calculation must be obtained from one evaluation within the same 30-day period as in D11b(iv).

(vi) Listing 105.05G2 requires two SSA CLD-P scores. The laboratory values for the second SSA CLD-P score calculation must have been obtained at least 60 days after the latest laboratory value for the first SSA CLD-P score and within the required 6-month period. We will consider the date of each SSA CLD-P score to be the date of the first laboratory value used for its calculation.

(vii) If you have the two SSA CLD-P scores required by listing 105.05G2, we will find that your impairment meets the criteria of the listing from at least the date of the first SSA CLD-P score.

12. *Extrahepatic biliary atresia (EBA)* (105.05H) usually presents in the first 2 months of life with persistent jaundice. The impairment meets 105.05H if the diagnosis of EBA is confirmed by liver biopsy or intraoperative cholangiogram that shows obliteration of the extrahepatic biliary tree. EBA is usually surgically treated by portoenterostomy (for example, Kasai procedure). If this surgery is not performed in the first months of life or is not completely successful, liver transplantation is indicated. If you have had a liver transplant, we will evaluate your impairment under 105.09.

13. *Liver transplantation* (105.09) may be performed for metabolic liver disease, progressive liver failure, life-threatening complications of liver disease, hepatic malignancy, and acute fulminant hepatitis (viral, drug-induced, or toxin-induced). We will consider you to be disabled for 1 year from the date of the transplantation. Thereafter, we will evaluate your residual impairment(s) by considering the adequacy of post-transplant liver function, the requirement for post-transplant antiviral therapy, the frequency and severity of rejection episodes, comorbid complications, and all adverse treatment effects.

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E. How do we evaluate inflammatory bowel disease (IBD)?

1. *Inflammatory bowel disease* (105.06) includes, but is not limited to, Crohn's disease and ulcerative colitis. These disorders, while distinct entities, share many clinical, laboratory, and imaging findings, as well as similar treatment regimens. Remissions and exacerbations of variable duration are the hallmark of IBD. Crohn's disease may involve the entire alimentary tract from the mouth to the anus in a segmental, asymmetric fashion. Obstruction, stenosis, fistulization, perineal involvement, and extraintestinal manifestations are common. Crohn's disease is rarely curable and recurrence may be a lifelong problem, even after surgical resection. In contrast, ulcerative colitis only affects the colon. The inflammatory process may be limited to the rectum, extend proximally to include any contiguous segment, or involve the entire colon. Ulcerative colitis may be cured by total colectomy.

2. Symptoms and signs of IBD include diarrhea, fecal incontinence, rectal bleeding, abdominal pain, fatigue, fever, nausea, vomiting, arthralgia, abdominal tenderness, palpable abdominal mass (usually inflamed loops of bowel) and perineal disease. You may also have signs or laboratory findings indicating malnutrition, such as weight loss, edema, anemia, hypoalbuminemia, hypokalemia, hypocalcemia, or hypomagnesemia.

3. IBD may be associated with significant extraintestinal manifestations in a variety of body systems. These include, but are not limited to, involvement of the eye (for example, uveitis, episcleritis, iritis); hepatobiliary disease (for example, gallstones, primary sclerosing cholangitis); urologic disease (for example, kidney stones, obstructive hydronephrosis); skin involvement (for example, erythema nodosum, pyoderma gangrenosum); or non-destructive inflammatory arthritis. You may also have associated thromboembolic disorders or vascular disease. These manifestations may not correlate with the severity of your IBD. If your impairment does not meet any of the criteria of 105.06, we will consider the effects of your extraintestinal manifestations in determining whether you have an impairment(s) that meets or medically equals another listing, and we will also consider the effects of your extraintestinal manifestations when we determine whether your impairment(s) functionally equals the listings.

4. Surgical diversion of the intestinal tract, including ileostomy and colostomy, does not very seriously interfere with age-appropriate functioning if you are able to maintain adequate nutrition and function of the stoma. However, if you are not able to maintain adequate nutrition, we will evaluate your impairment under 105.08.

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F. How do we evaluate short bowel syndrome (SBS)?

1. *Short bowel syndrome* (105.07) is a disorder that occurs when congenital intestinal abnormalities, ischemic vascular insults (for example, necrotizing enterocolitis, volvulus), trauma, or IBD complications require surgical resection of more than one-half of the small intestine, resulting in the loss of intestinal absorptive surface and a state of chronic malnutrition. The management of SBS requires long-term parenteral nutrition via an indwelling central venous catheter (central line); the process is often referred to as *hyperalimentation* or *total parenteral nutrition* (TPN). Children with SBS can also feed orally, with variable amounts of nutrients being absorbed through their remaining intestine. Over time, some of these children can develop additional intestinal absorptive surface, and may ultimately be able to be weaned off their parenteral nutrition.
2. Your impairment will continue to meet 105.07 as long as you remain dependent on daily parenteral nutrition via a central venous catheter for most of your nutritional requirements. Long-term complications of SBS and parenteral nutrition include abnormal growth rates, central line infections (with or without septicemia), thrombosis, hepatotoxicity, gallstones, and loss of venous access sites. Intestinal transplantation is the only definitive treatment for children with SBS who remain chronically dependent on parenteral nutrition.
3. To document SBS, we need a copy of the operative report of intestinal resection, the summary of the hospitalization(s) including: Details of the surgical findings, medically appropriate postoperative imaging studies that reflect the amount of your residual small intestine, or if we cannot get one of these reports, other medical reports that include details of the surgical findings. We also need medical documentation that you are dependent on daily parenteral nutrition to provide most of your nutritional requirements.

G. How do we evaluate growth failure due to any digestive disorder?

1. To evaluate growth failure due to any digestive disorder, we require documentation of the laboratory findings of chronic nutritional deficiency described in 105.08A and the growth measurements in 105.08B within the same consecutive 12-month period. The dates of laboratory findings may be different from the dates of growth measurements.
2. Under 105.08B, we evaluate a child's growth failure by using the appropriate table for age and gender.
 - a. For children from birth to attainment of age 2, we use the weight-for-length table (see Table I or Table II).
 - b. For children age 2 to attainment of age 18, we use the body mass index (BMI)-for-age table (see Table III or Table IV).
 - c. BMI is the ratio of a child's weight to the square of the child's height. We calculate BMI using one of the following formulas:

English Formula

$$\text{BMI} = [\text{Weight in Pounds} / (\text{Height in Inches} \times \text{Height in Inches})] \times 703$$

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Metric Formulas

BMI = Weight in Kilograms / (Height in Meters x Height in Meters)

BMI = [Weight in Kilograms / (Height in Centimeters x Height in Centimeters)] x 10,000

H. How do we evaluate the need for supplemental daily enteral feeding via a gastrostomy?

1. *General.* Infants and young children may have anatomical, neurological, or developmental disorders that interfere with their ability to feed by mouth, resulting in inadequate caloric intake to meet their growth needs. These disorders frequently result in the medical necessity to supplement caloric intake and to bypass the anatomical feeding route of mouth-throat-esophagus into the stomach.

2. Children who have not attained age 3 and who require supplemental daily enteral nutrition via a feeding gastrostomy meet 105.10 regardless of the medical reason for the gastrostomy. Thereafter, we evaluate growth impairment under 100.02, malnutrition under 105.08, or other medical or developmental disorder(s) (including the disorder(s) that necessitated gastrostomy placement) under the appropriate listing(s).

I. How do we evaluate esophageal stricture or stenosis?

Esophageal stricture or stenosis (narrowing) from congenital atresia (absence or abnormal closure of a tubular body organ) or destructive esophagitis may result in malnutrition or the need for gastrostomy placement, which we evaluate under 105.08 or 105.10. Esophageal stricture or stenosis may also result in complications such as pneumonias due to frequent aspiration, or difficulty in maintaining nutritional status short of listing-level severity. While none of these complications may be of such severity that they would meet the criteria of another listing, the combination of impairments may medically equal the severity of a listing or functionally equal the listings.

J. What do we mean by the phrase “consider under a disability for 1 year”?

We use the phrase “consider under a disability for 1 year” following a specific event in 105.02, 105.05A, and 105.09 to explain how long your impairment can meet the requirements of those particular listings. This phrase does not refer to the date on which your disability began, only to the date on which we must reevaluate whether your impairment continues to meet a listing or is otherwise disabling. For example, if you have received a liver transplant, you may have become disabled before the transplant because of chronic liver disease. Therefore, we do not restrict our determination of the onset of disability to the date of the specified event. We will establish an onset date earlier than the date of the specified event if the evidence in your case record supports such a finding.

K. How do we evaluate impairments that do not meet one of the digestive disorder listings?

1. These listings are only examples of common digestive disorders that we consider severe enough to result in marked and severe functional limitations. If your impairment(s) does not

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meet the criteria of any of these listings, we must also consider whether you have an impairment(s) that satisfies the criteria of a listing in another body system. For example:

a. If you have hepatitis B or C and you are depressed, we will evaluate your impairment under 112.04.

b. If you have multiple congenital abnormalities, we will evaluate your impairment(s) under the criteria in the listings for impairments that affect multiple body systems (110.00) or the criteria of listings in other affected body systems.

c. If you have digestive disorders that interfere with intake, digestion, or absorption of nutrition, and result in a reduction in your rate of growth, and your impairment does not satisfy the criteria in the malnutrition listing (105.08), we will evaluate your impairment under the growth impairment listings (100.00).

2. If you have a severe medically determinable impairment(s) that does not meet a listing, we will determine whether your impairment(s) medically equals a listing. (See §416.926.) If your impairment(s) does not meet or medically equal a listing, you may or may not have an impairment(s) that functionally equals the listings. (See §416.926a.) When we decide whether you continue to be disabled, we use the rules in §416.994a.

105.01 Category of Impairments, Digestive System

105.02 Gastrointestinal hemorrhaging from any cause, requiring blood transfusion (with or without hospitalization) of at least 10 cc of blood/kg of body weight, and occurring at least three times during a consecutive 6-month period. The transfusions must be at least 30 days apart within the 6-month period. Consider under a disability for 1 year following the last documented transfusion; thereafter, evaluate the residual impairment(s).

105.05 Chronic liver disease, with:

A. Hemorrhaging from esophageal, gastric, or ectopic varices or from portal hypertensive gastropathy, demonstrated by endoscopy, x-ray, or other appropriate medically acceptable imaging, resulting in hemodynamic instability as defined in 105.00D5, and requiring hospitalization for transfusion of at least 10 cc of blood/kg of body weight. Consider under a disability for 1 year following the last documented transfusion; thereafter, evaluate the residual impairment(s).

OR

B. Ascites or hydrothorax not attributable to other causes, despite continuing treatment as prescribed, present on at least two evaluations at least 60 days apart within a consecutive 6-

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month period. Each evaluation must be documented by:

1. Paracentesis or thoracentesis; or
2. Appropriate medically acceptable imaging or physical examination and one of the following:
 - a. Serum albumin of 3.0 g/dL or less; or
 - b. International Normalized Ratio (INR) of at least 1.5.

OR

C. Spontaneous bacterial peritonitis with peritoneal fluid containing an absolute neutrophil count of at least 250 cells/mm³.

OR

D. Hepatorenal syndrome as described in 105.00D8, with one of the following:

1. Serum creatinine elevation of at least 2 mg/dL; or
2. Oliguria with 24-hour urine output less than 1 mL/kg/hr; or
3. Sodium retention with urine sodium less than 10 mEq per liter.

OR

E. Hepatopulmonary syndrome as described in 105.00D9, with:

1. Arterial oxygenation (PaO₂) on room air of:
 - a. 60 mm Hg or less, at test sites less than 3000 feet above sea level, or
 - b. 55 mm Hg or less, at test sites from 3000 to 6000 feet, or
 - c. 50 mm Hg or less, at test sites above 6000 feet; or
2. Documentation of intrapulmonary arteriovenous shunting by contrast-enhanced echocardiography or macroaggregated albumin lung perfusion scan.

OR

F. Hepatic encephalopathy as described in 105.00D10, with 1 and either 2 or 3:

1. Documentation of abnormal behavior, cognitive dysfunction, changes in mental status, or altered state of consciousness (for example, confusion, delirium, stupor, or coma), present on at least two evaluations at least 60 days apart within a consecutive 6-month period; **and**
2. History of transjugular intrahepatic portosystemic shunt (TIPS) or any surgical portosystemic shunt; or
3. One of the following occurring on at least two evaluations at least 60 days apart within the

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same consecutive 6-month period as in F1:

- a. Asterixis or other fluctuating physical neurological abnormalities; or
- b. Electroencephalogram (EEG) demonstrating triphasic slow wave activity; or
- c. Serum albumin of 3.0 g/dL or less; or
- d. International Normalized Ratio (INR) of 1.5 or greater.

OR

G. End Stage Liver Disease, with:

1. For children 12 years of age or older, SSA CLD scores of 22 or greater calculated as described in 105.00D11a. Consider under a disability from at least the date of the first score.
2. For children who have not attained age 12, SSA CLD-P scores of 11 or greater calculated as described in 105.00D11b. Consider under a disability from at least the date of the first score.

OR

H. Extrahepatic biliary atresia as diagnosed on liver biopsy or intraoperative cholangiogram. Consider under a disability for 1 year following the diagnosis; thereafter, evaluate the residual liver function.

105.06 Inflammatory bowel disease (IBD) documented by endoscopy, biopsy, appropriate medically acceptable imaging, or operative findings with:

A. Obstruction of stenotic areas (not adhesions) in the small intestine or colon with proximal dilatation, confirmed by appropriate medically acceptable imaging or in surgery, requiring hospitalization for intestinal decompression or for surgery, and occurring on at least two occasions at least 60 days apart within a consecutive 6-month period;

OR

B. Two of the following despite continuing treatment as prescribed and occurring within the same consecutive 6-month period:

1. Anemia with hemoglobin less than 10.0 g/dL, present on at least two evaluations at least 60 days apart;
or
2. Serum albumin of 3.0 g/dL or less, present on at least two evaluations at least 60 days apart;
or
3. Clinically documented tender abdominal mass palpable on physical examination with abdominal pain or cramping that is not completely controlled by prescribed narcotic

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medication, present on at least two evaluations at least 60 days apart;

or

4. Perineal disease with a draining abscess or fistula, with pain that is not completely controlled by prescribed narcotic medication, present on at least two evaluations at least 60 days apart;

or

5. Need for supplemental daily enteral nutrition via a gastrostomy or daily parenteral nutrition via a central venous catheter. (See 105.10 for children who have not attained age 3.)

105.07 Short bowel syndrome (SBS), due to surgical resection of more than one-half of the small intestine, with dependence on daily parenteral nutrition via a central venous catheter (see 105.00F).

105.08 Growth Failure due to any digestive disorder (see 105.00G), documented by A and B:

A. Chronic nutritional deficiency present on at least two evaluations at least 60 days apart within a consecutive 12-month period documented by one of the following:

1. Anemia with hemoglobin less than 10.0 g/dL; or
2. Serum albumin of 3.0 g/dL or less

AND

B. Growth failure as required in 1 or 2:

1. *For children from birth to attainment of age 2*, three weight-for-length measurements that are:

- a. Within a 12-month period; and
- b. At least 60 days apart; and
- c. Less than the third percentile on Table I or Table II; or

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**Table I – Males Birth to Attainment of Age 2
Third Percentile Values for Weight-for Length**

Length (Centimeters)	Weight (kilograms)
45.0	1.597
45.5	1.703
46.5	1.919
47.5	2.139
48.5	2.364
49.5	2.592
50.5	2.824
51.5	3.058
52.5	3.294
53.5	3.532
54.5	3.771
55.5	4.010
56.5	4.250
57.5	4.489
58.5	4.728
59.5	4.966
60.5	5.203
61.5	5.438

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62.5	5.671
63.5	5.903
64.5	6.132
65.5	6.359
66.5	6.584
67.5	6.807
68.5	7.027
69.5	7.245
70.5	7.461
71.5	7.674
72.5	7.885
73.5	8.094
74.5	8.301
75.5	8.507
76.5	8.710
77.5	8.913
78.5	9.113
79.5	9.313
80.5	9.512
81.5	9.710
82.5	9.907
83.5	10.104
84.5	10.301
85.5	10.499
86.5	10.696
87.5	10.895
88.5	11.095

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89.5	11.296
90.5	11.498
91.5	11.703
92.5	11.910
93.5	12.119
94.5	12.331
95.5	12.546
96.5	12.764
97.5	12.987
98.5	13.213
99.5	13.443
100.5	13.678
101.5	13.918
102.5	14.163
103.5	14.413

**Table II – Females Birth to Attainment of Age 2
Third Percentile Values for Weight-for-Length**

Length (Centimeters)	Weight (kilograms)
45.0	1.613
45.5	1.724
46.5	1.946
47.5	2.171
48.5	2.397
49.5	2.624

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50.5	2.852
51.5	3.081
52.5	3.310
53.5	3.538
54.5	3.767
55.5	3.994
56.5	4.220
57.5	4.445
58.5	4.892
59.5	5.113
60.5	5.333
61.5	5.552
62.5	5.769
63.5	5.769
64.5	5.985
65.5	6.200
66.5	6.413
67.5	6.625
68.5	6.836
69.5	7.046
70.5	7.254
71.5	74.61
72.5	7.667
73.5	7.871
74.5	8.075
75.5	8.277
76.5	8.479

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77.5	8.679
78.5	8.879
79.5	9.078
80.5	9.277
81.5	9.476
82.5	9.674
83.5	9.872
84.5	10.071
85.5	10.270
86.5	10.469
87.5	10.670
88.5	10.871
89.5	11.074
90.5	11.278
91.5	11.484
92.5	11.691
93.5	11.901
94.5	12.112
95.5	12.326
96.5	12.541
97.5	12.760
98.5	12.981
99.5	13.205
100.5	13.431
101.5	13.661
102.5	13.895
103.5	14.132

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2. For children age 2 to attainment of age 18, three (BMI)-for-age measurements that are:

- a. Within a consecutive 12-month period; **and**

- b. At least 60 days apart; **and**

- c. Less than the third percentile on **Table III** or **Table IV**

**Table III – Males Age 2 to Attainment of Age 18
Third Percentile Values for BMI-for-Age**

Age (yrs. And mos.)	BMI
2.0 to 2.1	14.5
2.2 to 2.4	14.4
2.5 to 2.7	14.3
2.8 to 2.11	14.2
3.0 to 3.2	14.1
3.3 to 3.6	14.0
3.7 to 3.11	13.9
4.0 to 4.5	13.8
4.6 to 5.0	3.7
5.1 to 6.0	13.6
6.1 to 7.6	13.5
7.7 to 8.6	13.6
8.7 to 9.1	13.7
9.2 to 9.6	13.8
9.7 to 9.11	13.9
10.0 to 10.3	14.0
10.4 to 10.7	14.1

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10.8 to 10.10	14.2
10.11 to 11.2	14.3
11.3 to 11.5	14.4
11.6 to 11.8	14.5
11.9 to 11.11	14.6
12.0 to 12.1	14.7
12.2 to 12.4	14.8
12.5 to 12.7	14.9
12.8 to 12.9	15.0
12.10 to 13.0	15.1
13.1 to 13.2	15.2
13.3 to 13.4	15.3
13.5 to 13.7	15.4
13.8 to 13.9	15.5
13.10 to 13.11	15.6
14.0 to 14.1	15.7
14.2 to 14.4	15.8
14.5 to 14.6	15.9
14.7 to 14.8	16.0
14.9 to 14.10	16.1
14.11 to 15.0	16.2
15.1 to 15.3	16.3
15.4 to 15.5	16.4
15.6 to 15.7	16.5
15.8 to 15.9	16.6
15.10 to 15.11	16.7
16.0 to 16.1	16.8

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16.2 to 16.3	16.9
16.4 to 16.5	17.0
16.6 to 16.8	17.1
16.9 to 16.10	17.2
16.11 to 17.0	17.3
17.1 to 17.2	17.4
17.3 to 17.5	17.5
17.6 to 17.7	17.6
17.8 to 17.9	17.7
17.10 to 17.11	17.8

**Table IV – Females Age 2 to Attainment of Age 18
Third Percentile Values for BMI-for-Age**

Age (yrs. And mos.)	BMI
2.0 to 2.2	14.1
2.3 to 2.6	14.0
2.7 to 2.10	13.9
2.11 to 3.2	13.8
3.3 to 3.6	13.7
3.7 to 3.11	13.6
4.0 to 4.4	13.5
4.5 to 4.11	13.4
5.0 to 5.9	13.3
5.10 to 7.6	13.2
7.7 to 8.4	13.3
8.05 to 8.10	13.4
8.11 to 9.3	13.5

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9.4 to 9.8	13.6
9.9 to 10.0	13.7
10.1 to 10.4	13.8
10.5 to 10.7	13.9
10.8 to 10.10	14.0
10.11 to 11.2	14.1
11.3 to 11.5	14.2
11.6 to 11.7	14.3
11.8 to 11.10	14.4
11.11 to 12.1	14.5
12.2 to 12.4	14.6
12.5 to 12.6	14.7
12.7 to 12.9	14.8
12.10 to 12.11	14.9
13.0 to 13.2	15.0
13.3 to 13.4	15.1
13.5 to 13.7	15.2
13.8 to 13.9	15.3
13.10 to 14.0	15.4
14.1 to 14.2	15.5
14.3 to 14.5	15.6
14.6 to 14.7	15.7
14.8 to 14.9	15.8
14.10 to 15.0	15.9
15.1 to 15.2	16.0
15.3 to 15.5	16.1
15.6 to 15.7	16.2

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15.8 to 15.10	16.3
15.11 to 16.0	16.4
16.1 to 16.3	16.5
16.4 to 16.6	16.6
16.7 to 16.9	16.7
16.10 to 17.0	16.8
17.1 to 17.3	16.9
17.4 to 17.7	17.0
17.8 to 17.11	17.1

105.09 Liver transplantation. Consider under a disability for 1 year following the date of transplantation; thereafter, evaluate the residual impairment(s) (see 105.00D13 and 105.00J).

105.10 Need for supplemental daily enteral feeding via a gastrostomy due to any cause, for children who have not attained age 3; thereafter, evaluate the residual impairment(s) (see 105.00H).