

# Medicaid Disability Manual

A. Consider under a disability until the attainment of age 5 or for 1 year after initial implantation, whichever is later.

**OR**

B. Upon the attainment of age 5 or 1 year after initial implantation, whichever is later, a word recognition score of 60 percent or less determined using the HINT or the HINT-C (see 102.00B3b).

## 103.00 RESPIRATORY DISORDERS

### A. *Which disorders do we evaluate in this body system?*

1. We evaluate respiratory disorders that result in obstruction (difficulty moving air out of the lungs) or restriction (difficulty moving air into the lungs), or that interfere with diffusion (gas exchange) across cell membranes in the lungs. Examples of such disorders and the listings we use to evaluate them include chronic obstructive pulmonary disease (103.02), chronic lung disease of infancy (also known as bronchopulmonary dysplasia, 103.02C or 103.02E), pulmonary fibrosis (103.02), asthma (103.02 or 103.03), and cystic fibrosis (103.04). We also use listings in this body system to evaluate respiratory failure resulting from an underlying chronic respiratory disorder (103.04E or 103.14) and lung transplantation (103.11).
2. We evaluate cancers affecting the respiratory system under the listings in 113.00. We evaluate the pulmonary effects of neuromuscular and autoimmune disorders under these listings or under the listings in 111.00 or 114.00, respectively.

**B. *What are the symptoms and signs of respiratory disorders?*** Symptoms and signs of respiratory disorders include dyspnea (shortness of breath), chest pain, coughing, wheezing, sputum production, hemoptysis (coughing up blood from the respiratory tract), use of accessory muscles of respiration, and tachypnea (rapid rate of breathing).

### C. *What abbreviations do we use in this body system?*

1. *BiPAP* means bi-level positive airway pressure ventilation.
2. *BTPS* means body temperature and ambient pressure, saturated with water vapor.
3. *CF* means cystic fibrosis.
4. *CFRD* means CF-related diabetes.
5. *CFTR* means CF transmembrane conductance regulator.
6. *CLD* means chronic lung disease of infancy.
7. *FEV<sub>1</sub>* means forced expiratory volume in the first second of a forced expiratory maneuver.
8. *FVC* means forced vital capacity.
9. *L* means liter.

### D. *What documentation do we need to evaluate your respiratory disorder?*

1. We need *medical evidence* to document and assess the severity of your respiratory disorder. Medical evidence should include your medical history, physical examination findings, the results of imaging (see 103.00D3), spirometry (see 103.00E), other relevant laboratory tests, and descriptions of any prescribed treatment and your response to it. We may not need all of this evidence depending on your particular respiratory disorder and its effects on you.

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2. If you use *supplemental oxygen*, we still need medical evidence to establish the severity of your respiratory disorder.
3. *Imaging* refers to medical imaging techniques, such as x-ray and computerized tomography. The imaging must be consistent with the prevailing state of medical knowledge and clinical practice as the proper technique to support the evaluation of the disorder.

## ***E. What is spirometry and what are our requirements for an acceptable test and report?***

1. Spirometry, which measures how well you move air into and out of your lungs, involves at least three forced expiratory maneuvers during the same test session. A forced expiratory maneuver is a maximum inhalation followed by a forced maximum exhalation, and measures exhaled volumes of air over time. The volume of air you exhale in the first second of the forced expiratory maneuver is the FEV<sub>1</sub>. The total volume of air that you exhale during the entire forced expiratory maneuver is the FVC. We use your highest FEV<sub>1</sub> value to evaluate your respiratory disorder under 103.02A and 103.04A, and your highest FVC value to evaluate your respiratory disorder under 103.02B, regardless of whether the values are from the same forced expiratory maneuver or different forced expiratory maneuvers. We will not purchase spirometry for children who have not attained age 6.
2. We have the following requirements for spirometry under these listings:
  - a. You must be medically stable at the time of the test. Examples of when we would not consider you to be medically stable include when you are:
    - (i) Within 2 weeks of a change in your prescribed respiratory medication.
    - (ii) Experiencing, or within 30 days of completion of treatment for, a lower respiratory tract infection.
    - (iii) Experiencing, or within 30 days of completion of treatment for, an acute exacerbation (temporary worsening) of a chronic respiratory disorder. Wheezing by itself does not indicate that you are not medically stable.
  - b. During testing, if your FEV<sub>1</sub> is less than 70 percent of your predicted normal value, we require repeat spirometry after inhalation of a bronchodilator to evaluate your respiratory disorder under these listings, unless it is medically contraindicated. If you used a bronchodilator before the test and your FEV<sub>1</sub> is less than 70 percent of your predicted normal value, we still require repeat spirometry after inhalation of a bronchodilator unless the supervising physician determines that it is not safe for you to take a bronchodilator again (in which case we may need to reschedule the test). If you do not have post-bronchodilator spirometry, the test report must explain why. We can use the results of spirometry administered without bronchodilators when the use of bronchodilators is medically contraindicated.
  - c. Your forced expiratory maneuvers must be satisfactory. We consider a forced expiratory maneuver to be satisfactory when you exhale with maximum effort following a full inspiration, and when the test tracing has a sharp takeoff and rapid rise to peak flow, has a smooth contour, and either lasts for at least 6 seconds (for children age 10 and older) or for at least 3 seconds (for children who have not attained age 10), or maintains a plateau for at least 1 second.
3. The spirometry report must include the following information:
  - a. The date of the test and your name, age or date of birth, gender, and height without shoes. (We will assume that your recorded height on the date of the test is without shoes, unless we have evidence to the contrary.) If your spine is abnormally curved (for example, you have kyphoscoliosis), we will substitute the longest distance between your outstretched fingertips with your arms abducted 90 degrees in place of your height when this measurement is greater than your standing height without shoes.

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- b. Any factors, if applicable, that can affect the interpretation of the test results (for example, your cooperation or effort in doing the test).
- c. Legible tracings of your forced expiratory maneuvers in a volume-time format showing your name and the date of the test for each maneuver.
4. If you have attained age 6, we may need to purchase spirometry to determine whether your disorder meets a listing, unless we can make a fully favorable determination or decision on another basis.
5. Before we purchase spirometry for a child age 6 or older, a medical consultant (see § 416.1016 of this chapter), preferably one with experience in the care of children with respiratory disorders, must review your case record to determine if we need the test. If we purchase spirometry, the medical source we designate to administer the test is solely responsible for deciding whether it is safe for you to do the test and for how to administer it.

## **F. What is CLD and how do we evaluate it?**

1. *CLD*, also known as bronchopulmonary dysplasia, or BPD, is scarring of the immature lung. CLD may develop as a complication of mechanical ventilation and oxygen therapy for infants with significant neonatal respiratory problems. Within the first 6 months of life, most infants with CLD are successfully weaned from mechanical ventilation, and then weaned from oxygen supplementation. We evaluate CLD under 103.02C, 103.02E, or if you are age 2 or older, under 103.03 or another appropriate listing.
2. If you have CLD, are not yet 6 months old, and need 24-hour-per-day oxygen supplementation, we will not evaluate your CLD under 103.02C until you are 6 months old. Depending on the evidence in your case record, we may make a fully favorable determination or decision under other rules before you are 6 months old.
3. We evaluate your CLD under 103.02C if you are at least 6 months old and you need 24-hour-per-day oxygen supplementation. (If you were born prematurely, we use your corrected chronological age. See § 416.924b(b) of this chapter.) We also evaluate your CLD under 103.02C if you were weaned off oxygen supplementation but needed it again by the time you were 6 months old or older.
4. We evaluate your CLD under 103.02E if you are any age from birth to the attainment of age 2 and have CLD exacerbations or complications (for example, wheezing, lower respiratory tract infections, or acute respiratory distress) that require hospitalization. For the purpose of 103.02E, we count your initial birth hospitalization as one hospitalization. The phrase “consider under a disability for 1 year from the discharge date of the last hospitalization or until the attainment of age 2, whichever is later” in 103.02E does not refer to the date on which your disability began, only to the date on which we must reevaluate whether your impairment(s) continues to meet a listing or is otherwise disabling.

## **G. What is asthma and how do we evaluate it?**

1. *Asthma* is a chronic inflammatory disorder of the lung airways that we evaluate under 103.02 or 103.03. If you have respiratory failure resulting from chronic asthma (see 103.00J), we will evaluate it under 103.14.
2. For the purposes of 103.03:
  - a. The phrase “consider under a disability for 1 year” explains how long your asthma can meet the requirements of the listing. It does not refer to the date on which your disability began, only to the

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date on which we must reevaluate whether your asthma continues to meet a listing or is otherwise disabling.

b. We determine the onset of your disability based on the facts of your case, but it will be no later than the admission date of your first of three hospitalizations that satisfy the criteria of 103.03.

## **H. What is CF and how do we evaluate it?**

1. *General.* We evaluate CF, a genetic disorder that results in abnormal salt and water transport across cell membranes in the lungs, pancreas, and other body organs, under 103.04. We need the evidence described in 103.00H2 to establish that you have CF.

2. *Documentation of CF.* We need a report signed by a physician (see § 416.913(a) of this chapter) showing both a *and* b:

a. One of the following:

(i) A positive newborn screen for CF; or

(ii) A history of CF in a sibling; or

(iii) Documentation of at least one specific CF phenotype or clinical criterion (for example, chronic sino-pulmonary disease with persistent colonization or infections with typical CF pathogens, pancreatic insufficiency, or salt-loss syndromes); *and*

b. One of the following definitive laboratory tests:

(i) An elevated sweat chloride concentration equal to or greater than 60 millimoles per L; or

(ii) The identification of two CF gene mutations affecting the CFTR; or

(iii) Characteristic abnormalities in ion transport across the nasal epithelium.

c. When we have the report showing a and b, but it is not signed by a physician, we also need a report from a physician stating that you have CF.

d. When we do not have the report showing a and b, we need a report from a physician that is persuasive that a positive diagnosis of CF was confirmed by an appropriate definitive laboratory test. To be persuasive, this report must include a statement by the physician that you had the appropriate definitive laboratory test for diagnosing CF. The report must provide the test results or explain how your diagnosis was established that is consistent with the prevailing state of medical knowledge and clinical practice.

3. *CF pulmonary exacerbations.* Examples of CF pulmonary exacerbations include increased cough and sputum production, hemoptysis, increased shortness of breath, increased fatigue, and reduction in pulmonary function. Treatment usually includes intravenous antibiotics and intensified airway clearance therapy (for example, increased frequencies of chest percussion or increased use of inhaled nebulized therapies, such as bronchodilators or mucolytics).

4. For 103.04G, we require any two exacerbations or complications from the list in 103.04G1 through 103.04G4 within a 12-month period. You may have two of the same exacerbation or complication or two different ones.

a. If you have two of the acute exacerbations or complications we describe in 103.04G1 and 103.04G2, there must be at least 30 days between the two.

b. If you have one of the acute exacerbations or complications we describe in 103.04G1 and 103.04G2 and one of the chronic complications we describe in 103.04G3 and 103.04G4, the two can occur during the same time. For example, your CF meets 103.04G if you have the pulmonary hemorrhage we describe in 103.04G2 and the weight loss we describe in 103.04G3 even if the pulmonary hemorrhage occurs during the 90-day period in 103.04G3.

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c. Your CF also meets 103.04G if you have both of the chronic complications in 103.04G3 and 103.04G4.

5. CF may also affect other body systems such as digestive or endocrine. If your CF, including pulmonary exacerbations and nonpulmonary complications, does not meet or medically equal a respiratory disorders listing, we may evaluate your CF-related impairments under the listings in the affected body system.

**I. *How do we evaluate lung transplantation?*** If you receive a lung transplant (or a lung transplant simultaneously with other organs, such as the heart), we will consider you to be disabled under 103.11 for 3 years from the date of the transplant. After that, we evaluate your residual impairment(s) by considering the adequacy of your post-transplant function, the frequency and severity of any rejection episodes you have, complications in other body systems, and adverse treatment effects. Children who receive organ transplants generally have impairments that meet our definition of disability before they undergo transplantation. The phrase “consider under a disability for 3 years” in 103.11 does not refer to the date on which your disability began, only to the date on which we must reevaluate whether your impairment(s) continues to meet a listing or is otherwise disabling. We determine the onset of your disability based on the facts of your case.

**J. *What is respiratory failure and how do we evaluate it?*** Respiratory failure is the inability of the lungs to perform their basic function of gas exchange. We evaluate respiratory failure under 103.04E if you have CF-related respiratory failure, or under 103.14 if you have respiratory failure due to any other *chronic* respiratory disorder. Continuous positive airway pressure does not satisfy the criterion in 103.04E or 103.14, and cannot be substituted as an equivalent finding, for invasive mechanical ventilation or noninvasive ventilation with BiPAP.

**K. *How do we evaluate growth failure due to any chronic respiratory disorder?***

1. To evaluate growth failure due to any chronic respiratory disorder, we require documentation of the oxygen supplementation described in 103.06A and the growth measurements in 103.06B within the same consecutive 12-month period. The dates of oxygen supplementation may be different from the dates of growth measurements.

2. Under 103.06B, we use the appropriate table(s) under 105.08B in the digestive system to determine whether a child’s growth is less than the third percentile.

a. For children from birth to attainment of age 2, we use the weight-for-length table corresponding to the child’s gender (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 corresponding to the child’s gender (Table III or Table IV).

c. BMI is the ratio of a child’s weight to the square of his or her height. We calculate BMI using the formulas in 105.00G2c.

**L. *How do we evaluate respiratory disorders that do not meet one of these listings?***

1. These listings are only examples of common respiratory disorders that we consider severe enough to result in marked and severe functional limitations. If your impairment(s) does not meet the criteria of any of these listings, we must also consider whether you have an impairment(s) that meets the criteria of a listing in another body system. For example, if your CF has resulted in chronic pancreatic or hepatobiliary disease, we evaluate your impairment under the listings in 105.00.

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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 of this chapter. Respiratory disorders may be associated with disorders in other body systems, and we consider the combined effects of multiple impairments when we determine whether they medically equal a listing. If your impairment(s) does not meet or medically equal a listing, we will also consider whether it functionally equals the listings. See § 416.926a of this chapter. We use the rules in § 416.994a of this chapter when we decide whether you continue to be disabled.

## 103.01 Category of Impairments, Respiratory Disorders

**103.02 Chronic respiratory disorders** due to any cause except CF (for CF, see 103.04), with A, B, C, D, or E:

A. FEV<sub>1</sub> (see 103.00E) less than or equal to the value in Table I-A or I-B for your age, gender, and height without shoes (see 103.00E3a).

Table I: FEV <sup>1</sup> Criteria for 103.02A		
<b>Table I-A</b> Age 6 to attainment of age 13 (For both females and males)		
Height without shoes (centimeters)	Height without shoes (inches)	FEV <sub>1</sub> less than or equal to (L, BTPS)
< means less than	< means <u>less than</u>	
<123.0	<48.50	0.80
123.0 to <129.0	48.50 to <50.75	0.90
129.0 to <134.0	50.75 to <52.75	1.00
134.0 to <139.0	52.75 to <54.75	1.10
139.0 to <144.0	54.75 to <56.75	1.20
144.0 to <149.0	56.75 to <58.75	1.30
149.0 or more	58.75 or more	1.40

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<u>Table I-B</u> Age 13 to attainment of age 18			
Height without shoes (centimeters) < means <u>less than</u>	Height without shoes (inches) < means <u>less than</u>	Females FEV <sub>1</sub> less than (L, BTPS)	Males FEV <sub>1</sub> less than or equal to (L, BTPS)
<153.0	<60.25	1.3	1.40
153.0 to <159.0	60.25 to <62.50	1.45	1.50
159.0 to <164.0	62.50 to <64.50	1.55	1.60
164.0 to <169.0	64.50 to <66.50	1.65	1.70
169.0 to <174.0	66.50 to <68.50	1.75	1.85
174.0 to <180.0	68.50 to <70.75	1.85	2.00
180.0 or more	70.75 or more	1.95	2.10

OR

B. FVC (see 103.00E) less than or equal to the value in Table II-A or II-B for your age, gender, and height without shoes (see 103.00E3a).

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Table II: FVC Criteria for 103.02B

<b>Table II-A</b> Age 6 to attainment of age 13 (For both females and males)		
Height without shoes (centimeters) <u>less than</u>	Height without shoes (inches) < means <u>less than</u>	FVC less than or equal to (L, BTPS)
<123.0	<48.50	0.85
123.0 to <129.0	48.50 to <50.75	1.00
129.0 to <134.0	50.75 to <52.75	1.10
134.0 to <139.0	52.75 to <54.75	1.30
139.0 to <144.0	54.75 to <56.75	1.40
144.0 to <149.0	56.75 to <58.75	1.55
149.0 or more	58.75 or more	1.70

**Table II-B Age 13 to attainment of age 18**

Height without shoes (centimeters) < means <u>less than</u>	Height without shoes (inches) < means <u>less than</u>	Females FVC less than or equal to (L, BTPS)	Males FVC less than or equal to (L, BTPS)
<153.0	<60.25	1.65	1.65
153.0 to <159.0	60.25 to <62.50	1.70	1.80

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159.0 to <164.0	62.50 to <64.50	1.80	1.95
164.0 to <169.0	64.50 to <66.50	1.95	2.10
169.0 to <174.0	66.50 to <68.50	2.05	2.25
174.0 to <180.0	68.50 to <70.75	2.20	2.45
180.0 or more	70.75 or more	2.30	2.55

OR

C. Hypoxemia with the need for at least 1.0 L per minute of continuous (24 hours per day) oxygen supplementation for at least 90 consecutive days.

OR

D. The presence of a tracheostomy.

1. Consider under a disability until the attainment of age 3; or
2. Upon the attainment of age 3, documented need for mechanical ventilation via a tracheostomy for at least 4 hours per day and for at least 90 consecutive days.

OR

E. For children who have not attained age 2, CLD (see 103.00F) with exacerbations or complications requiring three hospitalizations within a 12-month period and at least 30 days apart (the 12-month period must occur within the period we are considering in connection with your application or continuing disability review). Each hospitalization must last at least 48 hours, including hours in a hospital emergency department immediately before the hospitalization. (A child's initial birth hospitalization when CLD is first diagnosed counts as one hospitalization.) Consider under a disability for 1 year from the discharge date of the last hospitalization or until the attainment of age 2, whichever is later. After that, evaluate the impairment(s) under 103.03 or another appropriate listing.

**103.03 Asthma** (see 103.00G) with exacerbations or complications requiring three hospitalizations within a 12-month period and at least 30 days apart (the 12-month period must occur within the period we are considering in connection with your application or continuing disability review). Each hospitalization must last at least 48 hours, including hours in a hospital emergency department immediately before the hospitalization. Consider under a disability for 1 year from the discharge date of the last hospitalization; after that, evaluate the residual impairment(s) under 103.03 or another appropriate listing.

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**103.04 Cystic fibrosis** (documented as described in 103.00H), with A, B, C, D, E, F, or G:

A. FEV<sub>1</sub> (see 103.00E) less than or equal to the value in Table III-A or Table III-B for your age, gender, and height without shoes (see 103.00E3a).

**Table III-A**

Age 6 to attainment of age 13

(For both females and males)

(For both females and males)

Height without shoes (centimeters) < means <u>less than</u>	Height without shoes (inches) < means <u>less than</u>	FEV <sub>1</sub> less than or equal to (L, BTPS)
<123.0	<48.50	1.00
123.0 to <129.0	48.50 to <50.75	1.15
129.0 to <134.0	50.75 to <52.75	1.25
134.0 to <139.0	52.75 to <54.75	1.40
139.0 to <144.0	54.75 to <56.75	1.50
144.0 to <149.0	56.75 to <58.75	1.70
149.0 or more	58.75 or more	1.80

**Table III-B Age 13 to attainment of age 18**

Height without shoes (centimeters) < means <u>less than</u>	Height without shoes (inches) < means <u>less than</u>	Females FEV <sub>1</sub> less than or equal to (L, BTPS)	Males FEV <sub>1</sub> less than or equal to (L, BTPS)
<153.0	<60.25	1.75	1.85

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153.0 to <159.0	60.25 to <62.50	1.85	2.05
159.0 to <164.0	62.50 to <64.50	1.95	2.15
164.0 to <169.0	64.50 to <66.50	2.10	2.30
169.0 to <174.0	66.50 to <68.50	2.25	2.45
174.0 to <180.0	68.50 to <70.75	2.35	2.60
180.0 or more	70.75 or more	2.50	2.70

OR

B. For children who have not attained age 6, findings on imaging (see 103.00D3) of thickening of the proximal bronchial airways, nodular-cystic lesions, segmental or lobular atelectasis, or consolidation, and documentation of one of the following:

1. Shortness of breath with activity; or
2. Accumulation of secretions as manifested by repetitive coughing; or
3. Bilateral rales or rhonchi, or reduction of breath sounds.

OR

C. Exacerbations or complications (see 103.00H3) requiring three hospitalizations of any length within a 12-month period and at least 30 days apart (the 12-month period must occur within the period we are considering in connection with your application or continuing disability review).

OR

D. Spontaneous pneumothorax, secondary to CF, requiring chest tube placement.

OR

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E. Respiratory failure (see 103.00J) requiring invasive mechanical ventilation, noninvasive ventilation with BiPAP, or a combination of both treatments, for a continuous period of at least 48 hours, or for a continuous period of at least 72 hours if postoperatively.

OR

F. Pulmonary hemorrhage requiring vascular embolization to control bleeding.

OR

G. Two of the following exacerbations or complications (either two of the same or two different, see 103.00H3 and 103.00H4) within a 12-month period (the 12-month period must occur within the period we are considering in connection with your application or continuing disability review):

1. Pulmonary exacerbation requiring 10 consecutive days of intravenous antibiotic treatment.
2. Pulmonary hemorrhage (hemoptysis with more than blood-streaked sputum but not requiring vascular embolization) requiring hospitalization of any length.
3. Weight loss requiring daily supplemental enteral nutrition via a gastrostomy for at least 90 consecutive days or parenteral nutrition via a central venous catheter for at least 90 consecutive days.
4. CFRD requiring daily insulin therapy for at least 90 consecutive days.

## 103.05 [Reserved]

**103.06** *Growth failure due to any chronic respiratory disorder* (see 103.00K), documented by:

A. Hypoxemia with the need for at least 1.0 L per min of oxygen supplementation for at least 4 hours per day and for at least 90 consecutive days.

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 consecutive 12-month period; and
  - b. At least 60 days apart; and
  - c. Less than the third percentile on the appropriate weight-for-length table under 105.08B1; or
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 the appropriate BMI-for-age table under 105.08B2.

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103.07 [Reserved]

103.08 [Reserved]

103.09 [Reserved]

103.10 [Reserved]

**103.11 *Lung transplantation*** (see 103.00I). Consider under a disability for 3 years from the date of the transplant; after that, evaluate the residual impairment(s).

103.12 [Reserved]

103.13 [Reserved]

**103.14 *Respiratory failure*** (see 103.00J) resulting from any underlying chronic respiratory disorder except CF (for CF, see 103.04E), requiring invasive mechanical ventilation, noninvasive ventilation with BiPAP, or a combination of both treatments, for a continuous period of at least 48 hours, or for a continuous period of at least 72 hours if postoperatively, twice within a 12-month period and at least 30 days apart (the 12-month period must occur within the period we are considering in connection with your application or continuing disability review).

## **104.00 Cardiovascular System (Effective date: 06/12/15)**

### **A. General**

#### **1. What do we mean by a cardiovascular impairment?**

- a. We mean any disorder that affects the proper functioning of the heart or the circulatory system (that is, arteries, veins, capillaries, and the lymphatic drainage). The disorder can be congenital or acquired.
  
- b. Cardiovascular impairment results from one or more of four consequences of heart disease:
  - (i) Chronic heart failure or ventricular dysfunction.
  
  - (ii) Discomfort or pain due to myocardial ischemia, with or without necrosis of heart muscle.
  
  - (iii) Syncope, or near syncope, due to inadequate cerebral perfusion from any cardiac cause, such as obstruction of flow or disturbance in rhythm or conduction resulting in inadequate cardiac output.