

## 1320.5 Introduction

Since the body systems approach is used by disability claims examiners in making disability determinations, field offices should also employ this methodology in developing proof of disability.

The human body is a vastly complex organism comprised of major body systems, their component organs, tissues, and individual cells which are ultimately the substance of life. Depending upon severity, impairment to or disorder of one or more of these body systems may constitute an inability to engage in employment to the extent required to qualify for disability benefits under the RRA. Functional loss, the true measure of disability, most closely meets the needs of the disability evaluation process - practicality, uniformity and accuracy.

Bodily function has both biological and physiological aspects. The biological aspect involves the essential components to sustain life - cardiac, respiratory and metabolic. All body systems involve biochemical processes which support these essential biological functions. Physiological aspect is characterized by the expenditure of energy.

Functions of different body parts are necessarily varied and specialized. These variations can be expressed qualitatively and quantitatively in medical terminology and physical measurements. The accumulation of this information constitutes medical evidence which, when it adequately represents the applicant's medical condition, forms the basis for a disability determination under the RRA.

Although field employees do not require an extensive level of medical knowledge, it is desirable to have a familiarity of certain aspects of human physiology, medical terminology, various diseases and disorders which affect function. Accordingly, the remainder of this chapter provides for each of the major body systems the following information:

- Description of the body system;
- Visible signs and observations of the applicant's appearance and behavior which indicate the level of impairment;
- Considerations and questions to be used in obtaining and evaluating adequacy of information about the applicant's medical condition;
- The most common impairments and disorders associated with each body system.

To further assist field offices in evaluating the adequacy of medical evidence and/or contracting for specialized examinations or services, Appendix B gives a listing, by body system and by impairment within body system, the usual exams, x-rays and laboratory tests required to make a disability determination. If these requirements are not met in

existing medical evidence, it is usually necessary that these requirements be contracted for through local providers as instructed in FOM-I-1330.

Finally, refer to [DCM 3 Appendix D](#) for a list of common medications. This list contains both the brand name and generic name of medications and the conditions for which they are often prescribed.

**CAUTION:** Field office employees should not attempt to use this chapter for diagnosis; that must be done by trained medical personnel. The information is provided only to assist you in developing medical evidence to accompany a disability claim.

## **1320.10 Musculoskeletal System**

- A. Description - The musculoskeletal system is composed of bones, joints, cartilage, ligaments, muscles and tendons. The primary purpose of the skeleton is to support the rest of the body and protect certain vital organs; the primary purpose of the muscles is controlled movement of body parts.
- B. Visible Signs/Observations
- Deformities;
  - Stiffness;
  - Swelling;
  - Amputation;
  - Use of prosthesis;
  - Gait.
- C. Considerations/Questions
- Joints involved;
  - Where/when/how injury occurred;
  - Current ability to use affected area;
  - Surgery performed;
  - Can prosthesis be used?;
  - Problems with remaining extremity Pain experienced, relief;
  - Range of motion.

D. Impairments/Disorders

1. Inflammatory Arthritis - Impairments due to forms of arthritis that cause joint inflammation;
2. Osteoarthritis - Arthritis affecting major joints of upper and lower extremities (hip, knee, ankle, shoulder, elbow and wrists);
3. Disorders of the Spine - Back pain, disc and vertebra problems;
4. Fractures;
5. Amputation;
6. Osteomyelitis - Bone infection;

## 1320.15 Sensory System

A. Description - The body is in constant need of information about the environment that permits the person to discriminate between various objects and conditions, to maintain itself in desired positions, avoid dangerous objects or obstructions and in general, move through and manipulate his environment according to his needs. Of all the senses which supply this information, those of sight, hearing, balance, and position are the most important in terms of ability to survive and earn a living.

B. Visible Signs/Observations - Applicant's abilities despite impairments imbalance.

C. Considerations/Questions

- Cause of loss of sight - diabetes, congenital, cataracts, trauma, progressive vision loss, etc.;
- Dizziness, nausea, vomiting;
- Wear glasses?;
- Drive, watch TV, read newspaper? Hearing aid?;
- Understand speech?;
- Surgery to correct condition?

D. Impairments/Disorders

1. Visual Disorders - Blindness, cataracts, glaucoma, refractive errors, retinitis pigmentosa, hemianopsia;

2. Hearing Disorders - Conductive hearing loss, sensorineural hearing loss, Meniere's disease.

## 1320.20 Respiratory System

- A. Description - Respiration is the ability of the lungs to inhale air and transfer oxygen from that air to the blood and to transfer carbon dioxide plus other waste gases from the blood to the airspaces in the lungs and exhale.
- B. Visible Signs/Observations
  - Difficulties in breathing;
  - Coughing;
  - Electronic speech assisting device - can person be understood? speech volume?;
  - Wheezing.
- C. Considerations/Questions
  - Shortness of breath - during attack or any time of exertion;
  - How much exertion brings shortness of breath?;
  - Currently smokes - how much?;
  - Use oxygen?;
  - Asthma - frequency of attacks? Require hospitalization? Surgery?
- D. Impairments/Disorders
  1. Obstructive Disorders - Characterized by increased resistance in airways resulting in prolongation of exhaling; most frequent are emphysema and bronchial asthma;
  2. Restrictive Disorders - Characterized by restricted capacity of lungs to expand and contract; caused by mechanical restrictions (kyphosis, scoliosis, paralysis of diaphragm) or by fibrotic degeneration;
  3. Pulmonary Tuberculosis;
  4. Diseases of Larynx - Most commonly a laryngectomy has been performed resulting in partial or total loss of ability to speak;
  5. Other Infectious Diseases of the Lungs - Mycotic infections, etc.;

6. Occupational Lung Diseases - Silicosis, asbestosis, pneumoconiosis, berylliosis, etc.

## 1320.25 Cardiovascular System

- A. Description - Every part of the body depends on circulating blood to receive oxygen and nutrition and to dispose of waste products. The heart is the pump in the circulation process; arteries carry blood away from the heart; and veins return blood to the heart. The heart, arteries and veins are the main components of the cardiovascular system.
- B. Visible Signs/Observations
- Shortness of breath;
  - Dizziness;
  - Pallor;
  - Varicose veins;
  - Swelling.
- C. Considerations/Questions
- Symptoms - shortness of breath, pain, fluttering of heart, dizziness; What brings on symptoms?;
  - How long do symptoms last?;
  - What relieves symptoms?;
  - Medication? What is it for?;
  - Cramping of legs;
  - Surgery (type)?;
  - Diagnostic tests (treadmill, angiogram, doppler)?
- D. Impairments/Disorders
1. Congestive Heart Failure - Signs of vascular congestion such as peripheral or pulmonary edema, enlargement of the heart, shortness of breath, etc.;
  2. Ischemic Heart Disease - Cardinal sign is chest pain, usually relieved by nitroglycerin;

3. Conduction Disturbances - Arrhythmias (irregular heartbeat);
4. Miscellaneous Other Cardiovascular Conditions - hypertensive vascular disease (high blood pressure), H aneurysms, chronic venous insufficiency, arteriosclerosis (Buerger's disease), transient ischemic attacks.

### 1320.30 Gastrointestinal System

- A. Description - The function of the gastrointestinal system is to receive food substances into the body through the mouth, alter the physical and chemical composition of these substances so they can be absorbed into the blood stream and eliminate unused portions of such food from the body. The digestive tract consists of two main components, the gastrointestinal tract (mouth, pharynx, esophagus, stomach, intestines, rectum, anus) and the accessory digestive organs (liver, gallbladder, pancreas).
- B. Visible Signs/Observations
  - Height;
  - Weight;
  - Jaundice;
  - Abdominal distention;
- C. Considerations/Questions
  - Weight loss;
  - Abdominal pain;
  - Chronic diarrhea or constipation excessive alcohol use?
  - Loss of blood;
  - Vomiting;
  - Surgery?
- D. Impairments/Disorders
  1. Recurrent upper gastrointestinal hemorrhage;
  2. Stricture, stenosis or obstruction of the esophagus;
  3. Peptic ulcer disease, fistula formations;

4. Chronic liver disease;
5. Chronic ulcerative colitis;
6. Regional enteritis.

### 1320.35 Genito-Urinary System

- A. Description - The genito-urinary system has three functions: to provide for procreation of the species, to maintain the composition and volume of body fluid for proper body function and to eliminate excess water and metabolic wastes from the body. Loss of function in the reproductive system does not directly affect the ability to work; therefore, most work inhibiting disorders in this system involve the kidneys.
- B. Visible Signs/Observations
- Swelling;
  - Weight loss;
- C. Considerations/Questions
- Dialysis;
  - Kidney stones;
  - Kidney infections;
  - Backache;
  - Persistent fever;
  - Weight loss;
  - Fatigue;
  - Sensory loss in extremities Surgery?
- D. Impairments/Disorders
1. Chronic Renal Failure - Patients are almost always under continuous medical care;
  2. Nephrotic Syndrome - Abnormalities in serum and urinary protein.

## 1320.40 Hemic-Lymphatic System

- A. Description - The cell is the basic unit of life, and each cell in the body carries out in its own substance all the chemico-physical processes necessary for its existence. The carrying out of these processes necessitates a conveyance system for delivery of vital substances to all the relatively fixed body cells and for carrying off the byproducts and wastes generated by internal cellular metabolism. The actual delivery and removal are accomplished by the system of fluid tissues known as blood and lymph.
- B. Visible Signs/Observations
- Pallor;
  - Swelling or deformities of joints.
- C. Considerations/Questions
- Frequent bacterial infections? Anemia, weakness;
  - Blood transfusions?;
  - Difficulty in stopping bleeding - bone pain?;
  - Chemotherapy.
- D. Impairments/Disorders
1. Disorders of the Red Blood Cells - Characterized by anemia caused by excessive blood loss, deficient red cell production, excessive red cell destruction;
  2. Disorders of the White Blood Cells - Most common disease is leukemia;
  3. Hemorrhagic Disorders - Characterized by hemorrhagic tendencies (hemophilia, etc.);
  4. Lymphomas - Major types are Hodgkins' disease and non-Hodgkins lymphoma;
  5. Plasma Cell Disorders - Most common is multiple myeloma; also macroglobulinemia.

## 1320.45 Skin

- A. Description - The skin is composed of two main layers. The outer layer, consisting of dead cells over a layer of active cells, is called the epidermis. Dead outer cells flake or are abraded off, being replaced from underneath. The deeper



layer of skin is the dermis and it consists of connective tissue which supports various structures of the body.

B. Visible Signs/Observations

- Lesions;
- Rash;
- Discoloration;
- Burns;
- Scars;
- Disfigurement.

C. Considerations/Questions

- Cause of irritation;
- Frequency of irritation;
- Joints affected.

D. Impairments/Disorders

1. Common Skin Disorders - Dermatomyositis, systemic lupus erythematosus, scleroderma, psoriasis, etc.;
2. Physical Disfigurement.

## 1320.50 Endocrine System

A. Description - The endocrine glands regulate metabolic functions by secreting specific substances called hormones which are carried by the blood stream to their site of action. The endocrine system consists of the pituitary gland, thyroid gland, parathyroid glands, adrenal glands, pancreas and gonads. Most diseases of this system can be remedied through proper treatment.

B. Visible Signs/Observations

- Bulging eyeballs;
- Dwarfism;
- Gigantism;

- Large extremities.

C. Considerations/Questions

- Weight loss or gain;
- Dizziness;
- Blackouts;
- Convulsions;
- Numbness in extremities;
- Goiters;
- Non-healing sores or skin ulcers;
- Elevated blood sugar;
- Blurred vision;
- Seizures;
- Diarrhea or constipation.

D. Impairments/Disorders

1. Thyroid Disorders - Result of either excessive or underproduction of hormones;
2. Diabetes Mellitus - Persistently elevated blood sugar, family history of disease;
3. Diabetes Insipidus - May be caused by abnormal posterior pituitary gland, frequent complication is dehydration;
4. Hyperparathyroidism - Elevated parathyroid hormone level, generalized decalcification of bones;
5. Hypoparathyroidism - Low parathyroid hormone level, neuromuscular irritability.

## 1320.55 Neurological System

- A. Description - The neurological system is divided into two major divisions, the central nervous system consisting of the brain and spinal cord, and the peripheral nervous system. It is like a vast communications network, both receiving and

sending the necessary information for the body to properly respond to its external and internal environment.

B. Visible Signs/Observations

- Speech, hearing or visual deficit paralysis;
- Level of consciousness (alert, stuporous, confused, etc.), orientation to time, person, and place;
- Gait;
- Lack of muscle control.

C. Considerations/Questions

- Description of seizures, nature, duration, frequency;
- Medication;
- Physical therapy;
- Diminished sense of touch;
- Motor deficits;
- Head injuries.

D. Impairments/Disorders

1. Epilepsy (Seizures):

- (a) Major Motor Seizures (Grand Mal or Generalized) - Characterized by momentary feeling of strangeness followed by unconsciousness and convulsive movement of arms and legs.
- (b) Minor Motor Seizures (Petit Mal, Myoclonic Jerks, Akinetic Seizures) - Brief interruption of consciousness, sudden and involuntary contraction of muscles, or sudden loss of tone in all muscles resulting in fall to the ground.
- (c) Focal Seizures - (Psychomotor or temporal lobe, Jacksonian). Clonic movements in localized groups of muscles such as the hand or forearm, with or without loss of consciousness.

2. Cerebrovascular Accident (Stroke) - Dramatic development of wide scale of neurological symptoms resulting in functional loss of one or more body

parts; parts affected depend upon area in the brain in which damage has occurred.

3. Cerebral Palsy - Group of disorders of the motor system at birth; most common feature is spastic paraplegia with brisk tendon reflexes and extensor plantar responses, often accompanied by mental retardation and epilepsy.
4. Head Injury - Compound fractures and depressed fractures of the skull often result in cerebral damage similar to cerebrovascular accidents and seizure disorders.
5. Intracranial Tumor - Tumors vary from benign gliomas (most common) to the malignant brain tumors; symptoms are caused by irritation and destruction of nerve tissue and by intracranial pressure.
6. Parkinsonism - Generalized poverty of movement accompanied by tremor, progressively degenerating into rigidity; disturbance of ability to perform fine and gross movements.
7. Chorea - Characterized by sudden jerking movement of limbs; most common types are Sydenham (benign) and Huntington's (progressive).
8. Multiple Sclerosis - Chronic disease caused by absence of covering of the nerve cells; change of symptoms occur frequently.
9. Diseases of Spinal Cord - Compression of spinal cord by tumor or cervical spondylosis, degeneration of spinal cord, Syringomyelia.
10. Disorders of Muscles - Muscular dystrophy and myasthenia gravis.
11. Peripheral Neuropathy - Numbness, tingling, muscle weakness and/or atrophy of extremities which may have been caused by diseases such as diabetes mellitus.

## 1320.60 Mental Impairments

- A. Description - Mental impairments can be characterized as mental disturbances that are generally not associated with any demonstrable structural change in the brain and are without any clearly defined physical cause. An exception would be organic brain syndrome in which there is atrophy of the brain tissues. To a large degree, the causes of mental illness and the factors resulting in such mental disturbances are the difficulties of human existence.
- B. Visible Signs/Observations
  - Ability to understand and respond to questions;

- Assistance by another person in the interview;
- Dressed appropriately and reasonably well groomed;
- Unusual behavior (restlessness, mannerisms, twitching, crying, etc.);
- Memory defect, confusion, disorientation;

C. Considerations/Questions

- Reading, writing, and simple calculation abilities;
- Ability to perform routine, repetitive tasks;
- Description of customary activities (psychological functioning), scope of interest, ability to relate to others;
- Independence with which discretionary activities are engaged in;
- Difficulty in thinking (forgetfulness, obsessive thinking, anxieties, worries, inability to complete thoughts, etc.).

D. Impairments/Disorders

1. Mental Retardation - Lifelong condition characterized by below average intelligence with resultant impairment in learning, maturity and social adjustment.
2. Other Mental Disorders - Chronic organic brain syndrome, functional non-psychotic disorders, functional psychotic disorders.

## 1320.65 Malignant Tumors

- A. Description - Neoplasm is new, abnormal growth of cells resulting in nonfunctional or abnormally functional mass of tissue - a tumor. A benign tumor generally remains localized but may cause impairment due to size, pain or pressure. A malignant tumor begins as a local lesion but tends to spread beyond the site of origin by direct extension into adjacent areas or by migration of cells called metastasis.

B. Visible Signs/Observations

- Emaciation

C. Considerations/Questions

- Location of cancer;

- Surgery;
- Therapy (cobalt, x-ray, chemotherapy);
- Medication? (oral, intravenous) - response to treatment;
- Metastasis (spreading) to other body parts or areas;
- Functional limitations;
- Disfigurements?

D. Impairments/Disorders

1. Categories of Malignancies:

- (a) Malignancies that carry prognosis of extremely short life expectancy (e.g., oatcell carcinoma of the lung);
- (b) Less invasive malignancies that require metastasis to be disabling (e.g., carcinoma of the kidneys);
- (c) Malignancies that show resistance to therapy.

2. Benign tumors

## 1320.70 Multiple Body Systems

A. Description - Multiple body systems refer to diseases which involve more than one body system. These are usually connective tissue diseases and rheumatic diseases.

B. Visible Signs/Observations

- Facial rashes;
- Skin hemorrhages;
- Personality changes;
- Obesity;
- Shortness of breath.

C. Considerations/Questions

Considerations and questions for each pertinent body system.

D. Impairments/Disorders

1. Systemic Lupus Erythematosus - Inflammatory disorder of unknown origin affecting the connective tissues of any organ system.
2. Obesity - Severe excessive body weight affecting musculoskeletal, cardiovascular, pulmonary and vascular systems.
3. Other Connective Tissue Disorders - scleroderma, sarcoidosis, dermatomyositis, polyarteritis nodosa.

**1320.75 Acquired Immunodeficiency Syndrome (Aids)**

A. Description - Acquired Immunodeficiency Syndrome (AIDS) is characterized by a defect in the natural immunity system against disease. It is caused by a specific retrovirus known as human immunodeficiency virus (HIV).

B. Visible Signs/Observations

- Weight loss;
- Sores or skin ulcers.

C. Considerations/Questions

- Recurrent fevers;
- Weight loss;
- Diarrhea;
- Fatigue;
- Night sweats;
- Recurrent fungal, viral or other infections.

D. Impairments/Disorders

1. Lymphomas - Major types are Hodgkin's disease and non-Hodgkin's lymphoma.
2. Fungal Diseases - Coccidioidomycosis, cryptococcosis histoplasmosis, candidiasis.
3. Viruses - Any of several viruses that cause cellular enlargement and severe disease affecting the salivary glands, brain, kidneys, liver and

lungs (cytomegalovirus) or a viral disease marked by blisters on the skin or mucous membranes (herpes simplex virus).

4. Respiratory Disorders - Tuberculosis, lymphoid pneumonia, pneumocystis carinii pneumonia.
5. Toxoplasmosis - A disease of the central nervous system.
6. Bacterial Infections - Salmonellosis and mycobacteriosis.
7. Retinitis - Specifically, cytomegalovirus retinitis, an inflammation of the retina often causing loss of vision.
8. Kaposi's Sarcoma - Malignancy characterized by red or violet lesions on the skin or mucous membrane.
9. HIV Encephalopathy - A disease which alters the brain structure causing dementia.
10. HIV Wasting Syndrome - Profound involuntary weight loss, loss of strength.



