

individual's impairments and related symptoms, including the effects of postpolio sequelae.

What Is the Definition of "Disability" and "Medically Determinable Impairment"?

Sections 216(i) and 1614(a)(3) of the Social Security Act (the Act) define "disability"² as the inability to engage in any substantial gainful activity (SGA) by reason of any medically determinable physical or mental impairment (or combination of impairments) which can be expected to result in death or which has lasted or can be expected to last a continuous period of not less than 12 months. Sections 223(d)(3) and 1614(a)(3)(D) of the Act, and 20 CFR 404.1508 and 416.908, require that an impairment result from anatomical, physiological, or psychological abnormalities that can be shown by medically acceptable clinical and laboratory diagnostic techniques. The Act and regulations further require that an impairment be established by medical evidence that consists of signs, symptoms, and laboratory findings, and not only by an individual's statement of symptoms.

For Purposes of Disability Claims Adjudication, What Constitutes Postpolio Sequelae?

For purposes of disability claims adjudication, postpolio sequelae refer to multiple physical and mental disorders that may be manifested by polio survivors many years following acute polio infection. Any one or a combination of these disorders appropriately documented by signs, symptoms, and laboratory findings will constitute the presence of postpolio sequelae. The term "postpolio sequelae" includes the documented residuals of acute infection as well as all other documented clinical conditions that have an etiological link to either the acute infection or to its residual deficits.

Motor weakness is the most common residual of acute polio infection and is usually manifested by observable weakness, muscle atrophy, and reduced peripheral reflexes. These obvious clinical findings are used to document the history of poliomyelitis.

Electromyographic studies may be used by clinicians in clarifying the cause and extent of neuromuscular impairment, but should not be needed for purposes of disability decisionmaking. Nonetheless, when electromyography (EMG) results are available for review, these data should be considered in decisionmaking.

Typically, we will not order or purchase EMG studies.

In the absence of evidence to the contrary, and as long as the medical findings support a reasonable medical link between the prior polio infection and the present manifestation of any one or combination of the disorders discussed in the ruling, we will find that the individual has postpolio sequelae. For example, an individual with a history of polio affecting the left lower extremity who, on examination, has weakness and atrophy of the left thigh musculature with an observable limp now complains of chronic left lower extremity pain and is found to have lumbar stenosis documented by medically acceptable imaging. As discussed below, due to the chronic postural imbalance related to the effects of polio, a reasonable medical link exists between this individual's current medical condition (degenerative lumbar spine disease) and his/her prior polio residuals. Accordingly, we would make a finding of postpolio sequelae. On the other hand, an individual with a history of polio (for example, stating "I was in an iron lung") who, on examination, has normal motor findings, including normal posture and gait, now complains of pain clinically consistent with chronic radiculopathy, and has medically acceptable imaging demonstrating degenerative arthritis in the lumbar spine. This individual's current medical condition does not demonstrate a reasonable medical connection with the prior polio; instead, the degenerative arthritis should be adjudicated as a musculoskeletal disorder unrelated to the prior polio infection.

Postpolio sequelae include such disorders as postpolio syndrome (also known as the late effects of poliomyelitis), early advanced degenerative arthritis, sleep disorders, respiratory insufficiency, and various mental disorders. These disorders and documentation issues concerning them are discussed in detail below.

What Is Meant by the Term "Postpolio Syndrome"?

According to the National Institute of Neurological Disorders and Stroke (NINDS), postpolio syndrome is a condition that affects polio survivors anywhere from 10 to 40 years after recovery from an initial paralytic attack of the poliomyelitis virus. The NINDS states that postpolio syndrome is characterized by a further weakening of muscles that were previously affected by the polio infection. The signs and symptoms include fatigue, slowly progressive muscle weakness, and, at

times, muscular atrophy. The NINDS states that joint pain and increasing skeletal deformities such as scoliosis are common. Not all polio survivors experience these clinical problems, and the extent to which polio survivors are affected by postpolio syndrome varies. The onset of new or worsening signs and symptoms is associated with a further reduction of the individual's capacity to independently carry out activities of daily living.

How Does the Presence of Early Advanced Degenerative Arthritis Constitute an Element of Postpolio Sequelae?

Polio survivors often manifest motor residuals in a single extremity and thus function day-to-day with chronic postural imbalance. Clinicians have described degenerative musculoskeletal disorders etiologically linked to long-standing postural imbalance. Abnormal weight-bearing in polio survivors produces exaggerated wear and tear on the bones and joints of the spine or limbs that are overused to compensate for limbs weakened by polio. Early onset of advanced degenerative arthritis can be found in a compensatory extremity or spine. Where such an etiological relationship is clear, clinically documented early advanced degenerative arthritis in a compensating limb or spine is considered one of the postpolio sequelae.

Documentation of early advanced degenerative arthritis may include medically appropriate imaging or abnormal physical findings of advanced arthritis on clinical examination.

Chronic pain disorders related to early degenerative osteoarthritis should be evaluated based on the impact of the pain and its treatment on the individual's physical and mental functioning.

Why Are Sleep Disorders and Respiratory Insufficiency Possible Manifestations of Postpolio Sequelae?

Some polio survivors report the occurrence of sleep disorders that are determined by clinical evaluation to be related to respiratory insufficiency during sleep. The poliovirus has demonstrated a propensity to attack the motor neurons responsible for respiratory function, and, during the acute infection, some individuals require ventilatory assistance. For example, years ago patients with acute polio infection were placed in an "iron lung" for ventilatory assistance. Some patients who required such assistance recovered and may have returned to normal lives without obvious signs of respiratory insufficiency. Some polio

² Except for statutory blindness.