Prospective review is recommended/required. Please check the member agreement for preauthorization guidelines.

Prospective review is not required.

POLICY

Description:
Gait analysis, or motion analysis, is the quantitative laboratory assessment of coordinated muscle function, typically requiring a dedicated facility and staff. The basis of gait analysis is the videotaped observation of patient walking. Videos can be observed from several visual planes at slow speed, allowing detection of movements not recognizable at normal speed. Joint angles can be measured, and various time-distance variables can be measured including step length, stride length, cadence, and cycle time. Electromyography (EMG), assessed during walking, measures timing and intensity of muscle contractions. This allows determination of whether a certain muscle’s activity is normal, out of phase, continuous, or clonic.

Kinematics is the term used to describe movements of joints and limbs, such as angular displacement of joints, angular velocities, and accelerations of limb segments. The central element of kinematic assessment is some type of marker system that is used to represent anatomic landmarks, which are then visualized and quantitatively assessed during analysis of videotaped observations. Movement data are compiled by computer from cameras oriented in several planes, and the movement data are processed so that the motion of joints and limbs can be assessed in three dimensions. The range and direction of motion of a particular joint can be isolated from all the other simultaneous motions that are occurring during walking. Graphic plots of individual joint and limb motion as a function of gait phase can be generated.

Kinetics is the term used to describe those factors that cause or control movement. Evaluating kinetics involves the use of principles of physics and biomechanics to explain the kinematic patterns observed and generate analyses that describe the forces generated during normal and abnormal gait analysis.

Gait analysis has been proposed as an aid in surgical planning, primarily for cerebral palsy, and for planning for rehabilitative strategies for a variety of disorders. No randomized controlled trials have been published that compare health outcomes in patients managed with and without gait analysis. Several studies conducted among patients with cerebral palsy and other conditions suggest that gait analysis recommendations impact treatment decisions, but the impact of these decisions on health outcomes is as yet unknown. Based on input from clinical reviewers, gait analysis, when comprehensive, may be medically necessary for planning prior to surgery in children with gait disorders associated with cerebral palsy. Gait analysis is a covered service for BlueChip for Medicare members only. Due to insufficient evidence, gait analysis is considered not medically necessary for all other members.

Medical Criteria:
BlueCHiP for Medicare members:
Gait analysis is a covered service for BlueCHiP for Medicare members in a facility setting only (i.e., inpatient or rehabilitation hospital).

**NOTE:**
Medicare policy is developed separately from BCBSRI policy. Medicare policy incorporates consideration of governmental regulations from CMS (Centers for Medicare and Medicaid Services), such as national coverage determinations or local coverage determinations. In addition to benefit differences, CMS may reach different conclusions regarding the scientific evidence than does BCBSRI. Medicare and BCBSRI policies may differ. However, BlueCHiP for Medicare members must be offered, at least, the same services as Medicare offers.

**All other members:**
Gait analysis is covered only for cerebral palsy. For all other diagnoses, it is not medically necessary as there is insufficient peer reviewed published literature regarding efficacy.

**Policy:**
**BlueCHiP for Medicare members:**
Gait analysis is a covered service for BlueCHiP for Medicare members in a facility setting only (i.e., inpatient, or rehabilitation hospital). Gait analysis is not separately reimbursed when performed as part of an inpatient or rehabilitation hospital stay.

Preauthorization/prospective medical review is **not** required.

**All other members:**
Gait analysis is covered with a diagnosis of cerebral palsy only. It is not medically necessary for all other diagnoses as there is insufficient peer reviewed published literature regarding efficacy.

**Coverage:**
Benefits may vary between groups/contracts. Please refer to the Evidence of Coverage, Subscriber Agreement, or Benefit Booklet for **not medically necessary** services.

**Coding:**
The following codes may be used for gait analysis:
- 96000
- 96001
- 96002
- 96003
- 96004

Gait Analysis ICD-9-CM codes:
- 343.0
- 343.1
- 343.2
- 343.3
- 343.4
- 343.8
- 343.9

**Also known as:**
Motion Analysis

**Related topics:**
None

**Published:**
Provider Update, September 2008  
Provider Update, September 2009  
Provider Update, August 2011  
Provider Update, January 2012

**Public Policy Description**

**References:**


Chapin KB. *A Focus on Gait Analysis.* Rehabilitation Analysis: January 2010.


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