

Gait Analysis

Policy Number: PG0339
Last Review: 08/01/2023

HMO AND PPO
ELITE (MEDICARE ADVANTAGE)
MARKETPLACE

GUIDELINES:

- This policy does not certify benefits or authorization of benefits, which is designated by each individual policyholder terms, conditions, exclusions, and limitations contract. It does not constitute a contract or guarantee regarding coverage or reimbursement/payment. Self-Insured group specific policy will supersede this general policy when group supplementary plan document or individual plan decision directs otherwise.
- Paramount applies coding edits to all medical claims through coding logic software to evaluate the accuracy and adherence to accepted national standards.
- This medical policy is solely for guiding medical necessity and explaining correct procedure reporting used to assist in making coverage decisions and administering benefits.

SCOPE:

☒ Professional
☒ Facility

DESCRIPTION:

Gait analysis, also referred to as motion analysis, is the systematic evaluation of the dynamics of gait. It is a process of measuring and evaluating the walking patterns of patients with specific gait-related problems. Observational gait analysis, the standard method of evaluating gait, refers to the visual assessment of a patient's gait, with specific attention to hips, knees, and ankles. Gait analysis by observer assessment does not use any specialized equipment, can adequately assess most conditions, and is used to note gross abnormalities in gait.

Gait analysis may also be performed in a gait analysis laboratory using specialized technology. This is also referred to as computerized gait analysis, computerized motion diagnostic imaging (CMDI), quantitative gait analysis or clinical gait analysis. This procedure has been used to understand the etiology of gait abnormalities and as part of the treatment decision-making in patients with complex walking problems. Several modalities have been incorporated into a comprehensive gait analysis. For instance, visual assessment of gait is supplemented by video recordings taken from several visual planes at slow speed, allowing detection of movements not observable at normal speed. Joint angles and various time-distance variables, including step length, stride length, cadence, and cycle time, can be measured. Dynamic electromyography assessed during walking may be an included component of gait analysis. Dynamic EMG measures timing and intensity of muscle contractions and can help determine whether a muscle's activity is normal, out of phase, continuous, or clonic. Dynamic EMG is primarily used for the optimization of athletic performance.

It has been most often used for patients with neuromuscular conditions, primarily as part of the surgical decision-making process when all conservative measures have been exhausted and surgical intervention is being considered. Computerized gait analysis is a process by which gait characteristics are measured, abnormalities are identified, causes are suggested, and treatments are proposed. It is not intended to replace the clinical examination but serves as an adjunct to understand the impairment better. The treatment decision should be made in the total context of the patient's condition, physical examination, and medical history. Comprehensive gait analysis has been proposed as an aid in surgical planning for correction of gait abnormalities resulting from cerebral palsy. It has also been proposed for use in other conditions such as clubfoot and for planning rehabilitative strategies (i.e., orthotic-prosthetic devices) for ambulatory problems related to aging, stroke, spinal cord injury, and other conditions.

Studies have been published regarding the utilization of gait analysis in the surgical decision-making process in children and adolescents with cerebral palsy. The studies demonstrated the use of gait analysis:

- Confirms the clinical indications for surgery, and
- Alters the decision-making process for surgery, and
- Directs appropriate treatment.

Comprehensive gait analysis includes a quantitative assessment of coordinated muscle function in a dedicated laboratory, typically requiring a dedicated facility and staff and analysis of a video-recorded observation of a patient walking.

Pedobarography refers to dynamic measurements of the pressure distribution on the bottom of the foot through all stages of the gait cycle. It has been used to study weight-bearing foot function both in health and disease. The Podia-Scan system (Sensor Products Inc., East Hanover, NJ) has been used to measure static plantar foot pressure distribution and create images of pressure distribution across the plantar surface. It consists of a sensing mat, scanner, and image analysis software. The system produces a color representation of the sole of the foot.

POLICY:

Paramount Commercial Insurance Plans and Elite (Medicare Advantage) Plans

Paramount Commercial Plans

Effective 08/01/2023: Gait analysis (96000-96004) are covered without a prior authorization when the coverage criteria indicated below is met.

Medicare Advantage Plans

Gait analysis (96000-96004) are covered without a prior authorization when the coverage criteria indicated below is met.

COVERAGE CRITERIA:

Paramount Commercial Insurance Plans and Elite (Medicare Advantage) Plans

Comprehensive gait analysis is covered for the following indications:

- As an aid in surgical planning in patients with gait disorders associated with cerebral palsy.

Based upon criteria and the lack of peer-reviewed literature, gait analysis has not been medically proven to be effective and, therefore, is considered not medically necessary for all other applications, including, but not limited to:

- surgical planning for conditions other than gait disorders associated with cerebral palsy; and
- post-operative evaluation of surgical outcomes and rehabilitation planning and/or evaluation for all conditions

Comprehensive gait analysis studies are usually performed only once (1) prior to planned intervention and may be performed once after intervention to evaluate the results of the intervention to evaluate the results of the intervention.

These services are typically performed in a facility setting.

Gait analysis is sometimes termed dynamic EMG and surface EMG and may be erroneously submitted on claims under EMG codes.

Pedobarography (foot pressure studies) is considered experimental and investigational because there are no reliable evidence in the medical literature demonstrating the value of pedobarography in improving the diagnosis and management of foot conditions and improving health outcomes.

CODING/BILLING INFORMATION:

The appearance of a code in this section does not necessarily indicate coverage. Codes that are covered may have selection PG0339-03/08/2024

criteria that must be met. Payment for supplies may be included in payment for other services rendered.

CPT CODES	
96000	Comprehensive computer-based motion analysis by video-taping and 3-D kinematics [not covered when coded/billed for pedobarography]
96001	Comprehensive computer-based motion analysis by video-taping and 3-D kinematics; with dynamic plantar pressure measurements during walking
96002	Dynamic surface electromyography, during walking or other functional activities, 1-12 muscles
96003	Dynamic fine wire electromyography, during walking or other functional activities, 1 muscle
96004	Review and interpretation by physician or other qualified health care professional of comprehensive computer-based motion analysis, dynamic plantar pressure measurements, dynamic surface electromyography during walking or other functional activities, and dynamic fine wire electromyography, with written report
0693T	Comprehensive full body computer-based markerless 3D kinematic and kinetic motion analysis and report E/I
0733T	Remote real-time, motion capture-based neurorehabilitative therapy ordered by a physician or other qualified health care professional; supply and technical support, per 30 days. E/I
0734T	Remote real-time, motion capture-based neurorehabilitative therapy ordered by a physician or other qualified health care professional, treatment management services by a physician or other qualified health care professional, per calendar month E/I
0778T	Surface mechanomyography (sMMG) with concurrent application of inertial measurement unit (IMU) sensors for measurement of multi-joint range of motion, posture, gait, and muscle function E/I

REVISION HISTORY EXPLANATION: ORIGINAL EFFECTIVE DATE: 09/17/2015

Date	Explanation & Changes
09/17/2015	<ul style="list-style-type: none"> Policy created to reflect most current clinical evidence per The Technology Assessment Working Group (TAWG)
08/26/2016	<ul style="list-style-type: none"> Policy reviewed and updated to reflect most current clinical evidence per The Technology Assessment Working Group (TAWG)
09/22/2017	<ul style="list-style-type: none"> Policy reviewed and updated to reflect most current clinical evidence per The Technology Assessment Working Group (TAWG)
12/21/2020	<ul style="list-style-type: none"> Medical policy placed on the new Paramount Medical Policy Format
02/22/2023	<ul style="list-style-type: none"> Medical Policy updated to reflect Medicaid coverage to Anthem as of 02/01/2023
08/01/2023	<ul style="list-style-type: none"> Added related codes 0693T, 0733T, 0734T, 0778T, all indicated as noncovered Policy reviewed and updated to reflect the most current clinical evidence Effective 8/1/2023 gait analysis (96000-96004) is covered without a prior authorization when the coverage criteria indicated below is met, for the Paramount Commercial Insurance Plans Medicare Advantage Plans coverage criteria was updated to reflect the most current clinical evidence, allowing coverage for as an aid in surgical planning in patients with gait disorders associated with cerebral palsy only.

Paramount reserves the right to review and revise our policies periodically when necessary. When there is an update, we will publish the most current policy to <https://www.paramounthealthcare.com/providers/medical-policies/policy-library>

REFERENCES/RESOURCES

Centers for Medicare and Medicaid Services, CMS Manual System and other CMS publications and services <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals> <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Internet-Only-Manuals-IOMs>

American Medical Association, *Current Procedural Terminology (CPT®)* and associated publications and PG0339-03/08/2024

services <https://www.ama-assn.org/amaone/cpt-current-procedural-terminology>

Centers for Medicare and Medicaid Services, Healthcare Common Procedure Coding System, HCPCS Release and Code Sets <https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/HCPCS-Quarterly-Update>

U.S. Preventive Services Task Force, <https://www.uspreventiveservicestaskforce.org/uspstf/>
Industry Standard Review

Hayes, Inc., <https://www.hayesinc.com/>

Industry Standard Review