

# Gait Analysis and Surface Electromyography, Medical 345

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**Member-specific benefits take precedence over medical policy and benefits may vary across plans. Refer to the individual's benefit plan for details [\\*](#).**

## Description & Definitions:

**Surface electromyography (SEMG)** is a non-invasive, computer-based procedure, most commonly used in an office setting to assess muscle function by recording muscle activity from above the muscle on the skin surface. Can be combined with camera and computer system used to quantify and graphically display human movement patterns for adults and children.

## Criteria:

Computerized gait analysis and SEMG is considered medically necessary when **ALL** of the following criteria are met:

- **1 or more** of the following diagnoses is present:
  - A child or adolescent has a diagnosis of cerebral palsy.
  - Spina Bifida Meningomyelocele.
  - Traumatic brain injury.
  - Incomplete quadriplegia.
  - Spastic hemiplegia.
  - Spastic diplegia.
- The use of computerized gait analysis is being used for the evaluation of musculoskeletal gait function to assess and aid in planning for orthopedic surgery or interventional neurology (e.g., nerve blocks to reduce spasticity orthotic application) in ambulatory members with certain gait dysfunctions associated with the following conditions.

Computerized Gait analysis and SEMG for **any other indication** are considered **experimental, investigational, or unproven**.

## Document History:

Revised Dates:

- September 2025: Implementation date of January 1, 2026. No changes to criteria. Updated to new format only.

Reviewed Dates:

- 2024: September – no changes references updated
- 2023: September

## Coding:

### Medically necessary with criteria:

Coding	Description
96000	Comprehensive computer-based motion analysis by video-taping and 3D kinematics;
96001	Comprehensive computer-based motion analysis by video-taping and 3D 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

### Considered Not Medically Necessary:

Coding	Description
	N/A

*The preceding codes are included above for informational purposes only and may not be all inclusive. Additionally, inclusion or exclusion of a treatment, procedure, or device-code(s) does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.*

## Policy Approach and Special Notes: \*

- Coverage:
  - See the appropriate benefit document for specific coverage determination. Individual specific benefits take precedence over medical policy.
- Application to products:
  - Policy is applicable to Sentara Health Plan Commercial products.
- Authorization requirements:
  - Pre-certification by the Plan is required.
- Special Notes:
  - Medical policies can be highly technical and complex and are provided here for informational purposes. These medical policies are intended for use by health care professionals. The medical policies do not constitute medical advice or medical care. Treating health care professionals are solely responsible for diagnosis, treatment, and medical advice. Sentara Health Plan members should discuss the information in the medical policies with their treating health care professionals. Medical technology is constantly evolving, and these medical policies are subject to change without notice, although Sentara Health Plan will notify providers as required in advance of changes that could have a negative impact on benefits.
  - Services mean both medical and behavioral health (mental health) services and supplies unless We specifically tell You otherwise. We do not cover any services that are not listed in the Covered Services section unless required to be covered under state or federal laws and regulations. We do not cover any services that are not Medically Necessary. We sometimes give examples of specific services that are not covered but that does not mean that other similar services are covered. Some

services are covered only if We authorize them. When We say You or Your We mean You and any of Your family members covered under the Plan. Call Member Services if You have questions.

## References:

Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; UpToDate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

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## Keywords:

Gait Analysis, Surface electromyography, motion analysis, 3D kinematics, walking video, computerized gait