

Gait Analysis and Surface Electromyography

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<u>Effective Date</u>	4/1/2024
<u>Next Review Date</u>	9/15/2024
<u>Coverage Policy</u>	Medical 345
<u>Version</u>	1

All requests for authorization for the services described by this medical policy will be reviewed per Early and Periodic Screening, Diagnostic and Treatment (EPSDT) guidelines. These services may be authorized under individual consideration for Medicaid members under the age of 21-years if the services are judged to be medically necessary to correct or ameliorate the member's condition. Department of Medical Assistance Services (DMAS), Supplement B - EPSDT (Early and Periodic Screening, Diagnosis and Treatment) Manual.*.

Purpose:

This policy addresses gait analysis using surface electromyography. Also called computerized gait analysis.

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 is considered medically necessary when **ALL** of the following criteria are met:

- **One 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.

Gait analysis or Computerized gait analysis is considered **not medically necessary** for any use other than those indicated in clinical criteria.

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,

Considered Not Medically Necessary:

Coding	Description
	None

U.S. Food and Drug Administration (FDA) - approved only products only.

Document History:

Revised Dates:

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Reviewed Dates:

- 2023: September

Effective Date:

- April 1, 2024

References:

Including but not limited to: 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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Mukaino, M., Ohtsuka, K., Tanikawa, H., Matsuda, F., Yamada, J., Itoh, N., & Saitoh, E. (2018, Mar 04). Clinical-oriented Three-dimensional Gait Analysis Method for Evaluating Gait Disorder. Retrieved Aug 28, 2023, from PubMed: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5931438/>

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Special Notes: *

This medical policy express Sentara Health Plan's determination of medically necessity of services, and they are based upon a review of currently available clinical information. These policies are used when no specific guidelines for coverage are provided by the Department of Medical Assistance Services of Virginia (DMAS). Medical Policies may be superseded by state Medicaid Plan guidelines. Medical policies are not a substitute for clinical judgment or for any prior authorization requirements of the health plan. These policies are not an explanation of benefits.

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.

The Early and Periodic Screening, Diagnostic and Treatment (EPSDT) covers services, products, or procedures for children, if those items are determined to be medically necessary to "correct or ameliorate" (make better) a defect, physical or mental illness, or condition (health problem) identified through routine medical screening or examination, regardless of whether coverage for the same service or support is an optional or limited service under the state plan. Children enrolled in the FAMIS Program are not eligible for all EPSDT treatment services. All requests for authorization for the services described by this medical policy will be reviewed per EPSDT guidelines. These services may be authorized under individual consideration for Medicaid members under the age of 21-years if the services are judged to be medically necessary to correct or ameliorate the member's condition. *Department of Medical Assistance Services (DMAS), Supplement B - EPSDT (Early and Periodic Screening, Diagnosis and Treatment) Manual.*

Keywords:

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