If a product excludes coverage for a service, it is not covered, and medical policy criteria do not apply.

If a commercial product, including an Essential Plan product, covers a specific service, medical policy criteria apply to the benefit.

If a Medicare product covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit.

POLICY STATEMENT:

Based on our criteria and the lack of peer reviewed literature, Computerized Motion Diagnostic Imaging (CMDI)/gait analysis is not medically necessary for all indications.

Refer to Corporate Medical Policy #8.01.12 regarding Physical Therapy (PT).

Refer to Corporate Medical Policy #8.01.17 regarding Occupational Therapy (OT).

POLICY GUIDELINES:

The Federal Employee Health Benefit Program (FEHBP/FEP) requires that procedures, devices or laboratory tests approved by the U.S. Food and Drug Administration (FDA) may not be considered investigational and thus these procedures, devices or laboratory tests may be assessed only on the basis of their medical necessity.

DESCRIPTION:

Computerized Motion Diagnostic Imaging (CMDI), or gait analysis, uses video recording combined with information from sensor devices, such as surface or needle electromyography or foot pressure sensing plates, to record and analyze coordinated muscle function.

This technology is proposed for surgical planning, primarily for cerebral palsy, and for evaluation of work related athletic and automobile accident injuries, and back pain.

Spinocscopy focuses on dynamic function of the muscles of the back.

RATIONALE:

A number of motion analysis systems, including the Peak Motus Motion Measurement System have received FDA 510(k) clearance. The Spinex International spinocscopy device received 510(k) clearance in 1988.

The medical literature does not demonstrate the role of the technology in medical management or its impact on health outcomes. Reports of single center experience suggest that gait analysis may alter decisions regarding the timing and choice of surgical interventions for children with spastic cerebral palsy, however no studies have been published that provide sufficient evidence in order to reach significant conclusions. A limitation of another study is that the authors did not prospectively collect data on how treatment plans changed after the gait analysis. In addition, the complexity of the random forest decision algorithm makes it difficult to determine the degree to which gait analysis independently predicts outcomes.
Eligibility for reimbursement is based upon the benefits set forth in the member’s subscriber contract.

Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates.

Code Key: Experimental/Investigational = (E/I), Not medically necessary/ appropriate = (NMN).

**CPT:**
- 96000 (NMN) Comprehensive computer-based motion analysis by videotaping and 3-D kinematics
- 96001 (NMN) with dynamic plantar pressure measurements during walking
- 96002 (NMN) Dynamic surface electromyography, during walking or other functional activities, 1–12 muscles
- 96003 (NMN) Dynamic fine wire electromyography, during walking or other functional activities, 1 muscle
- 96004 (NMN) 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

**HCPCS:** No code(s)

**REFERENCES:**


BlueCross BlueShield Association Technology Evaluation Center. Gait analysis for pediatric cerebral palsy. 2001 Apr;16(19).


| SUBJECT: COMPUTERIZED MOTION DIAGNOSTIC IMAGING (CMDI)/ GAIT ANALYSIS | EFFECTIVE DATE: 07/02/99 |
| POLICY NUMBER: 2.01.13 | ARCHIVED: 01/11/01 |
| CATEGORY: Technology Assessment | EDITED DATE: 11/11/05, 10/19/06, 10/18/07, 12/18/08, 11/19/09, 11/18/10, 11/17/11, 11/15/12, 11/21/13, 11/20/14, 11/19/15, 10/20/16, 10/19/17 |
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**KEY WORDS:**

Gait, Motion Analysis, Spinoscopy.

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**CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS**

Based on our review, computerized motion diagnostic imaging, gait analysis, or spinoscopy are not addressed in National or Local Medicare coverage determinations or policies.