

Policy: MP351

Section: Medical Policy

Subject: Myoelectric Upper Extremity Orthotics

Applicable Lines of Business

Commercial	X	CHIP	X
Medicare	X	ACA	X
Medicaid	X		

I. Policy: Myoelectric Upper Extremity Orthotics

II. Purpose/Objective:

To provide a policy of coverage regarding Myoelectric Upper Extremity Orthotics

III. Responsibility:

- A. Medical Directors
- B. Medical Management

IV. Required Definitions

1. Attachment – a supporting document that is developed and maintained by the policy writer or department requiring/authoring the policy.
2. Exhibit – a supporting document developed and maintained in a department other than the department requiring/authoring the policy.
3. Devised – the date the policy was implemented.
4. Revised – the date of every revision to the policy, including typographical and grammatical changes.
5. Reviewed – the date documenting the annual review if the policy has no revisions necessary.

V. Additional Definitions

Medical Necessity or Medically Necessary means Covered Services rendered by a Health Care Provider that the Plan determines are:

- a. appropriate for the symptoms and diagnosis or treatment of the Member's condition, illness, disease or injury;
- b. provided for the diagnosis, and the direct care and treatment of the Member's condition, illness disease or injury;
- c. in accordance with current standards of good medical treatment practiced by the general medical community.
- d. not primarily for the convenience of the Member, or the Member's Health Care Provider; and
- e. the most appropriate source or level of service that can safely be provided to the Member. When applied to hospitalization, this further means that the Member requires acute care as an inpatient due to the nature of the services rendered or the Member's condition, and the Member cannot receive safe or adequate care as an outpatient.

Medicaid Business Segment

Medically Necessary — A service, item, procedure, or level of care that is necessary for the proper treatment or management of an illness, injury, or disability is one that:

- Will, or is reasonably expected to, prevent the onset of an illness, condition, injury or disability.
- Will, or is reasonably expected to, reduce or ameliorate the physical, mental or developmental effects of an illness, condition, injury or disability.

- Will assist the Member to achieve or maintain maximum functional capacity in performing daily activities, taking into account both the functional capacity of the Member and those functional capacities that are appropriate for Members of the same age

DESCRIPTION: Myoelectric orthotics are powered by electric motors and utilize muscles sensors and microprocessors to amplify the weakened electrical activity in the affected limb to drive the joint movement of the orthotic. The primary goals of the myoelectric upper limb orthotics are to help restore natural function. It has been proposed that with the orthotic, an individual who has suffered paralysis due to a stroke or other neuromuscular disorder, may be able to perform activities of daily living.

EXCLUSIONS:

The Plan considers the use of myoelectric upper extremity orthotic devices including but not limited to the MyoPro2 to be **experimental, investigational or unproven** for all indications, including but not limited to use by individuals with stroke, trauma, or neurological disorders, and **NOT COVERED**.

Note: A complete description of the process by which a given technology or service is evaluated and determined to be experimental, investigational or unproven is outlined in MP 15 - Experimental Investigational or Unproven Services or Treatment.

Medicaid Business Segment:

Any requests for services, that do not meet criteria set in the PARP, may be evaluated on a case by case basis.

CODING ASSOCIATED WITH:

The following codes are included below for informational purposes and may not be all inclusive. Inclusion of a procedure or device code(s) does not constitute or imply coverage nor does it imply or guarantee provider reimbursement. Coverage is determined by the member specific benefit plan document and any applicable laws regarding coverage of specific services. Please note that per Medicare coverage rules, only specific CPT/HCPCS Codes may be covered for the Medicare Business Segment. Please consult the CMS website at www.cms.gov or the local Medicare Administrative Carrier (MAC) for more information on Medicare coverage and coding requirements.

- L3999 Upper limb orthosis, not otherwise specified [when specified as an upper extremity myoelectric orthosis]
- L8701 Powered upper extremity range of motion assist device, elbow, wrist, hand with single or double upright(s), includes microprocessor, sensors, all components and accessories, custom fabricated
- L8702 Powered upper extremity range of motion assist device, elbow, wrist, hand, finger, single or double upright(s), includes microprocessor, sensors, all components and accessories, custom fabricated

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LINE OF BUSINESS:

Eligibility and contract specific benefits, limitations and/or exclusions will apply. Coverage statements found in the line of business specific benefit document will supersede this policy. For Medicare, applicable LCD's and NCD's will supercede this policy. For PA Medicaid Business segment, this policy applies as written.

REFERENCES:

Geisinger Technology Assessment Committee Triage group. MyoPro2 Orthosis. Jan 2022

Page SJ, Hill V, White S. Portable upper extremity robotics is as efficacious as upper extremity rehabilitative therapy: a randomized controlled pilot trial. Clin Rehabil. 2013; 27(6):494-503.

Kim GJ, Rivera L, Stein J. Combined clinic-home approach for upper limb robotic therapy after stroke: a pilot study. Arch Phys Med Rehabil. 2015; 96(12):2243-2248.

Klamroth-Marganska V, Blanco J, Campen K, et al. Three-dimensional, task-specific robot therapy of the arm after stroke: a multicentre, parallel-group randomised trial. Lancet Neurol. 2014; 13(2):159-166.

Willigenburg NW, McNally MP, Hewett TE, Page SJ. Portable myoelectric brace use increases upper extremity recovery and participation but does not impact kinematics in chronic, poststroke hemiparesis. J Mot Behav. 2017; 49(1):46-54.

McCabe, JP, Henniger, D, Perkins, J, Skelly, M, Tatsuoka, C, and Pundik, S. Feasibility and clinical experience of implementing a myoelectric upper limb orthosis in the rehabilitation of chronic stroke patients: A clinical case series report. PLoS One. 2019;14(4):e0215311.

Peters, HT, Page, SJ, and Persch, A. Giving Them a Hand: Wearing a Myoelectric Elbow-Wrist-Hand Orthosis Reduces Upper Extremity Impairment in Chronic Stroke. Arch Phys Med Rehabil. 2017;98(9):1821-1827.

Pundik, S, McCabe, J, Kesner, S, Skelly, M, and Fatone, S. Use of a myoelectric upper limb orthosis for rehabilitation of the upper limb in traumatic brain injury: A case report. J Rehabil Assist Technol Eng. 2020;7:2055668320921067.

Dunaway S, Dezsi DB, Perkins J, Tran D, Naft J. Case Report on the Use of a Custom Myoelectric Elbow-Wrist-Hand Orthosis for the Remediation of Upper Extremity Paresis and Loss of Function in Chronic Stroke. Mil Med. 2017 Jul;182(7):e1963-e1968.

Page SJ, Griffin C, White SE. Efficacy of Myoelectric Bracing in Moderately Impaired Stroke Survivors: A Randomized, Controlled Trial. J Rehabil Med 2020; 52: jrm00017

Webber, CM, Egginton, JS, Shin, AY, and Kaufman, KR. Application of a myoelectric elbow flexion assist orthosis in adult traumatic brachial plexus injury: patient perspectives. Prosthet Orthot Int. 2021;45(6):526-531.

Pundik, S, McCabe, J, Skelly, M, Salameh, A, Naft, J, Chen, Z, Tatsuoka, C, and Fatone, S. Myoelectric Arm Orthosis in Motor Learning-Based Therapy for Chronic Deficits After Stroke and Traumatic Brain Injury. Front Neurol. 2022;13:791144.

ECRI. MyoPro 2+ (Myomo, Inc.) Orthosis for Patients with Upper-arm Neuromuscular Impairment. 4/20/2017. Updated 1/23/2023.

This policy will be revised as necessary and reviewed no less than annually.

Devised: 2/22, 2/23

Revised:

Reviewed:

Geisinger Health Plan may refer collectively to health care coverage sponsors Geisinger Health Plan, Geisinger Quality Options, Inc., and Geisinger Indemnity Insurance Company, unless otherwise noted. Geisinger Health Plan is part of Geisinger, an integrated health care delivery and coverage organization.

Coverage for experimental or investigational treatments, services and procedures is specifically excluded under the member's certificate with Geisinger Health Plan. Unproven services outside of an approved clinical trial are also specifically excluded under the member's certificate with Geisinger Health Plan. This policy does not expand coverage to services or items specifically excluded from coverage in the member's certificate with Geisinger Health Plan. Additional information can be found in MP015 Experimental, Investigational or Unproven Services.

Prior authorization and/or pre-certification requirements for services or items may apply. Pre-certification lists may be found in the member's contract specific benefit document. Prior authorization requirements can be found at <https://www.geisinger.org/health-plan/providers/ghp-clinical-policies>

Please be advised that the use of the logos, service marks or names of Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company on a marketing, press releases or any communication piece regarding the contents of this medical policy is strictly prohibited without the prior written consent of Geisinger Health Plan. Additionally, the above medical policy does not confer any endorsement by Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company regarding the medical service, medical device or medical lab test described under this medical policy.