Policy Number: PA.084.MPC
Last Review Date: 08/15/2024
Effective Date: 09/01/2024

PA.084.MPC Myoelectric Upper Limb Prosthesis

Maryland Physicians Care considers **Myoelectric Upper Limb Prosthesis** medically necessary to improve independence and reduce disability when **both** of the following criteria are met [1-4]:

- Patient has experienced unilateral, upper limb loss (through or proximal to the wrist) due to amputation or congenital defect
- The member has been evaluated by a multi-disciplinary team (i.e. physiatrist, orthopedist/prosthetist, occupational, and physical therapists) that documents **ALL** of the following:
  - The member demonstrates sufficient physiological and cognitive function to allow effective operation of the myoelectric prosthetic device
  - The prosthetic unit is recommended based on the evaluation of the multi-disciplinary team

Myoelectric Upper Limb Prosthesis in Children and Adoloscence:

- A new prosthesis will be necessary for a growing child (actual useful lifespan of the prosthesis depends primarily on the child's rate of skeletal growth). [5] Accordingly, a new prosthesis will also be considered medically necessary for growing children/adolescence who:
  - Continue to meet the initial indication criteria listed above *AND*
  - There is documentation that demonstrates the patient has outgrown their current prosthetic device

Background

Each year, there are approximately 185,000 amputation-related hospital discharges. Over 1.5 million people are living with limb loss in the United States. Upper limb amputations are twice as common as lower limb amputations. The three leading contributors to amputations include vascular disease, trauma, and cancer.

The use of one's hands allow for critical functional daily movements. Myoelectric prostheses of the upper limb increase range of motion and improve overall function of the upper limb for people with missing hands. These prostheses function via surface electrodes which are placed in the socket to detect and amplify muscle action of the residual limb.

Examples of Myoelectric Upper Limb Prosthesis include (not exhaustive):

- Boston Elbow™ (Liberating Technologies Inc., formerly Liberty Technology)
- Boston Digital Arm™ (Liberating Technologies Inc.)
- Centri Hand (Centri Company)
- Dynamic Arm 12K100 (Otto Bock Company)

- Electrohand 2000 for Children (Otto Bock Company)
- Electric Greifer (Otto Bock Company)
- Ergoarm® Elbow-Forearm (Otto Bock Company)
- i-Limb Hand (Touch Bionics)
- i-Limb Pulse (Touch Bionics)
- Motion Controlled Electric Terminal Device (ETD) Hand (Motion Control Company)
- MYO Electric Hand (Centri Company)
- Otto Bock Myoelectric Arm Prosthesis (Otto Bock Company)
- ProControl2 (Motion Control Company)
- ProDigits (Touch Bionics)
- RSL Steeper Scamp Hands for Infants (Liberating Technologies Inc.)
- System Electric Hand (Otto Bock Company)
- Transcarpal Hand (Otto Bock Company)
- Variety Village Electromechanical Elbow and Forearm for Juvenile/Adolescents (Systemteknik)
- VASI Electric Hands and Wrists (Liberating Technologies Inc., Variety Ability Systems Inc.)
- VASI Electric Elbows for Children Wrists (Liberating Technologies Inc., Variety Ability Systems Inc.)
- Utah Arm 3 (Motion Control Company)

Codes

HCPCS codes covered if selection criteria are met (If Appropriate):	
Code	Description
L6000	Base procedure-partial hand, thumb remaining
L6010	Base procedure-partial hand, little and/or ring finger remaining
L6020	Base procedure-partial hand, no finger remaining
L6026	Transcarpal/metacarpal or partial hand disarticulation prosthesis, external power, self-suspended, inner socket with removable forearm section, electrodes and cables, two batteries, charger, myoelectric control of terminal device, excludes terminal device(s)
L6611	Addition to upper extremity prosthesis, external powered, additional switch any type
L6629	Upper extremity addition, quick disconnection lamination collar with coupling piece, Otto Bock or equal
L6632	Upper extremity addition, latex suspension sleeve, each

L6646	Upper extremity addition, shoulder joint, multipositional locking, flexion, adjustable abduction friction control, for use with body powered or external powered system
L6648	Upper extremity addition, shoulder lock mechanism, external powered actuator
L6677	Upper extremity addition, harness, triple control, simultaneous operation of terminal device and elbow
L6680	Base procedure-upper extremity addition, test socket, wrist disarticulation or below elbow
L6687	Upper extremity addition, frame type socket, below elbow or wrist disarticulation
L6708	Terminal device, hand, mechanical, voluntary opening, any material, any size
L6715	Terminal device, multiple articulating digit, includes motor(s), initial issue or replacement
L6810	Addition to terminal device, precision pinch device
L6880	Electric hand, switch or myoelectric controlled, independently articulating digits, any grasp pattern or combination of patterns, include motor(s)
L6895	Terminal device, glove for above hands, custom glove
L6920	Wrist disarticulation, external power, self-suspended inner socket, removable forearm shell, Otto Bock or equal, switch cables, 2 batteries and one charger, myoelectronic control of terminal device
L6925	Wrist disarticulation, external power, self-suspended inner socket, removable forearm shell, Otto Bock or equal electrodes, cables, two batteries and one charger, myoelectric control of terminal device
L6930	Below elbow, external power, self-suspended inner socket, removable forearm shell, Otto Bock or equal electrodes, cables, two batteries and one charger, myoelectric control of terminal device
L6940	Elbow disarticulation, external power, molded inner socket, removable humeral shell, outside locking hinges, forearm, Otto Bock or equal switch, cables, two batteries and one charger, switch control of terminal device
L6945	Elbow disarticulation, external power, molded inner socket, removable humeral shell, outside locking hinges, forearm, Otto Bock or equal electrodes, cables, two batteries and one charger, myoelectric control of terminal device
L6950	Above elbow, external power, molded inner socket, removable humeral shell, outside locking hinges, forearm, Otto Bock or equal switch, cables, two batteries and one charger, switch control of terminal device
L6955	Above elbow, external power, molded inner socket, removable humeral shell, outside locking hinges, forearm, Otto Bock or equal electrodes, cables, two batteries and one charger, myoelectric control of terminal device

L6960	Shoulder disarticulation, external power, molded inner socket, removable should shell, shoulder bulkhead, humeral section, mechanical elbow, forearm, Otto Bock or equal switch, cables and one charger, switch control of terminal device
L6965	Shoulder disarticulation, external power, molded inner socket, removable should shell, shoulder bulkhead, humeral section, mechanical elbow, forearm, Otto Bock or equal electrodes, cables and one charger, myoelectric control of terminal device
L6970	Interscapular-thoracic, external power, molded inner socket, removable shoulder shell, shoulder bulkhead, humeral section, mechanical elbow, forearm, Otto Bock or equal switch, cables, two batteries and one charger, switch control of terminal device
L6975	Interscapular-thoracic, external power, molded inner socket, removable shoulder shell, shoulder bulkhead, humeral section, mechanical elbow, forearm, Otto Bock or equal electrodes, cables, two batteries and one charger, myoelectric control of terminal device
L7007	Electric hand, switch or myoelectric controlled, adult
L7008	Electric hook, switch or myoelectric controlled, adult
L7009	Electric hand, switch or myoelectric controlled, pediatric
L7040	Prehensile seizing/grasping actuator, switch controlled
L7045	Electric hook, switch or myoelectric controlled, pediatric
L7170	Electronic elbow, Hosmer or equal, switch controlled
L7180	Electronic elbow, microprocessor sequential control of elbow and terminal device
L7181	Electronic elbow, microprocessor simultaneous control of elbow and terminal device
L7185	Electronic elbow, adolescent, Variety Village or equal, switch controlled
L7186	Electronic elbow, child, Variety Village or equal, switch controlled
L7190	Electronic elbow, adolescent, Variety Village or equal, myoelectronically controlled
L7191	Electronic elbow, child, Variety Village or equal, myoelectronically controlled
L7368	Lithium battery ion charger
HCPCS Coding included with Base Unit Code and Not Covered:	
L6881	Automatic grasp feature, addition to upper limb electric prosthetic terminal device
L6882	Microprocessor control feature, addition to upper limb prosthetic terminal device

L6890	Addition to upper extremity prosthesis, glove for terminal device, any material, prefabricated, includes fitting and adjustment
L6900	Hand restoration (casts, shading and measurements included), partial hand, with glove, thumb, or one finger remaining

References

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2. Department of Veterans Affairs, Department of Defense. The Management of Upper Limb Amputation Rehabilitation. VA/DOD Clinical Practice Guidelines. 2022;2:1-146.
3. Crunkhorn A, Andrews E, Fantini C, et al. Management of Upper Limb Amputation Rehabilitation. Am J Phys Med Rehabil. 2023;102(3):245-253. doi:10.1097/PHM.0000000000002164
4. Demir Y. Upper limb prosthetic prescription. Turk J Phys Med Rehabil. 2023;69(2):261-265. doi:10.5606/tftrd.2023.12933
5. Battraw MA, Fitzgerald J, Joiner WM, James MA, Bagley AM, Schofield JS. A review of upper limb pediatric prostheses and perspectives on future advancements. Prosthet Orthot Int. 2022;46(3):267-273. doi:10.1097/PXR.0000000000000094

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