Medica Coverage Policy

Policy Name:	**Myoelectric Upper Limb Prosthetics and Orthotics**
Effective Date:	**2/19/2024**

Important Information – Please Read Before Using This Policy

These services may or may not be covered by all Medica plans. Coverage is subject to requirements in applicable federal or state laws. Please refer to the member's plan document for other specific coverage information. If there is a difference between this general information and the member's plan document, the member's plan document will be used to determine coverage. With respect to Medicare, Medicaid, and other government programs, this policy will apply unless these programs require different coverage. Members may contact Medica Customer Service at the phone number listed on their member identification card to discuss their benefits more specifically. Providers with questions may call the Medica Provider Service Center toll-free at 1-800-458-5512.

Medica coverage policies are not medical advice. Members should consult with appropriate health care providers to obtain needed medical advice, care, and treatment.

Coverage Policy

Myoelectric upper limb prosthetic components are **COVERED** when **ALL of the following** criteria are met:

A. The patient has an amputation or missing limb at the wrist or above (forearm, elbow, etc.).
B. Standard body-powered prosthetic devices cannot be used or are insufficient to meet the functional needs of the individual in performing activities of daily living (ADL).
C. The remaining musculature of the arm(s) has sufficient microvolt threshold to allow proper function of the myoelectric prosthetic device.
D. The patient has sufficient musculoskeletal, neurological and cognitive function to operate the prosthesis safely and effectively.
E. The patient is free of comorbidities that could interfere with function of the prosthesis (neuromuscular disease, etc.).
F. Provider or qualified prosthetist with appropriate expertise in patient's condition has evaluated patient and indicates that the prosthesis is likely to meet the functional needs when performing ADL.
G. Member is willing and able to complete necessary training required for successful and independent use of requested device.

A prosthetic with individually powered (multiarticulating) fingers (digits) that uses full or partial myoelectric power for independent movement of individual joints, including but not limited to partial hand prosthesis **is investigative** and unproven and therefore **NOT COVERED.** There is insufficient reliable evidence in the form of high quality peer-reviewed medical literature to establish the safety and efficacy or effects on health care outcomes.

Upper-limb prosthetic components with both sensor and myoelectric control (e.g. Luke™ Arm) **are investigative** and unproven and therefore **NOT COVERED.** There is insufficient reliable evidence in the form of high quality peer-reviewed medical literature to establish the safety and efficacy or effects on health care outcomes.

Myoelectric controlled upper limb orthoses (e.g., MyoPro®) are investigative and unproven and therefore **NOT COVERED.** There is insufficient reliable evidence in the form of high quality peer-reviewed medical literature to establish the efficacy or effects on health care outcomes.

See also related Medica utilization management policy, *Microprocessor Controlled Knee Prostheses, with or without Polycentric, Three-Dimensional Endoskeletal Hip Joint System (III-DEV.17),* and related coverage policy, *Powered Robotic Lower-Limb Exoskeleton Devices.*

Description

External prosthetic appliances, often-referred to as prosthetic devices or prostheses, are devices used to replace the functions of missing body parts. Upper limb prostheses are classified into the following categories:

- **Passive** is the lightest and serves mostly a cosmetic purpose as it does not restore any function and must be repositioned manually, typically by moving it with the opposite arm.
- **Body powered** utilizes a body harness and cable system to provide functional manipulation. Voluntary movement of the shoulder and/or limb stump extends the cable system and transmits force to the device to control hand, forearm and elbow movement.
- **Myoelectric** utilizes muscle activity from the residual limb for control of joint movement. Electromyographic signals from the limb stump are detected by small surface electrodes installed in the socket of the prosthesis, amplified and then processed by a microchip-controller to drive battery-powered motors that move the hand, wrist and elbow. These devices operate on rechargeable batteries and require no external cables or harnesses.
- **Hybrid** is a combination of body powered and myoelectric components and may be used for high-level amputations (at or above the elbow). Hybrid systems allow control of two joints at once.

Myoelectric Prosthetic Components for the Upper Limb

- **Myoelectric Hand attachments:**
  - Myoelectric hand attachments have traditionally been similar in form to those offered with the body-powered prosthesis, but with battery power. An example of recent technology is the SensorHand™, which is described as having an AutoGrasp feature and advanced EMG signal processing.
  - Multiarticulating, myoelectric hand prosthetic, sometimes referred to as the bionic hand (e.g., Bebionic, iLimb, Michelangelo, Vincent), functions by individually powering all five digits to grasp by conforming to the objects shape and fluctuating the grip strength. Devices vary in function and options including, but not limited to, the ability to be controlled by a mobile device app, conductive tips for mobile device use, multiple wrist options and skin colored silicone glove covers. The prosthetic is described as anthropomorphic (human like) in its appearance and shape.
  - A partial hand myoelectric prosthetic (e.g., ProDigits) replaces the function of one or more missing fingers as a result of a partial hand amputation. It is intended for use for an amputation at a transmetacarpal level or higher.

- **Upper-limb prosthetic components with sensor and myoelectric controls:** An enhanced-dexterity prosthetic arm (e.g., Life Under Kinetic Evolution [LUKE] Arm) is an upper limb prosthesis that was developed to restore function in those individuals who have lost all or part of their upper limb. It is primarily controlled by a micro-electromechanical system that is operated through an inertial measurement unit (IMU), which is located in a sensor that is attached to or embedded in the individual's shoe. By lifting the foot in various directions, it purportedly commands the motion of the prosthesis.

- **Myoelectric orthoses:** The MyoPro (Myomo) is a myoelectric powered upper-extremity orthotic. This orthotic device has manual wrist articulation and myoelectric initiated bi-directional elbow movement. The MyoPro detects weak muscle activity from the affected muscle groups. This orthotic can adjust the gain (amount of assistance), signal boost, thresholds, and range of motion. Potential users include patients with traumatic brain injury, spinal cord injury, brachial plexus injury, amyotrophic lateral sclerosis, and multiple sclerosis. The use of these robotic devices for therapy has been reported.

FDA Approval

Manufacturers must register prostheses with the Restorative and Repair Devices Branch of the U.S. Food and Drug Administration (FDA) and keep a record of any complaints but do not have to undergo a full FDA review.

There are many brands of myoelectric upper arm prostheses on the market. Available myoelectric devices include, but are not limited to, the following:

1. BeBionic Hand (Otto Bock)
2. LUKE arm (DEKA arm; Mobius Bionics)
3. i-limb™ (Össurs)
4. Michelangelo® Hand (Otto Bock)
5. MyoPro® (Myomo)
6. i-Digits (Össurs)
7. Utah Arm Systems (Fillauer)

Prior Authorization

Prior authorization is not required. However, services with specific coverage criteria may be reviewed retrospectively to determine if criteria are being met. Retrospective denial may result if criteria are not met.

Coding Considerations

Use the current applicable CPT/HCPCS code(s). The following codes are included below for informational purposes only, and are subject to change without notice. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement.

HCPC Codes:

- **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)
- **L6715 -** Terminal device, multiple articulating digit, includes motor(s), initial issue or replacement
- **L6880 -** Electric hand, switch or myoelectric controlled, independently articulating digits, any grasp pattern or combination of grasp patterns, includes motor(s).
- **L6882 -** Microprocessor control feature, addition to upper limb prosthetic terminal device
- **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

Original Effective Date: 5/17/2021

Re-Review Date(s): 1/24/2024