

## ***Myoelectric Prosthetic and Orthotic Components for the Upper Limb***

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### **IMPORTANT REMINDER**

*The Medicare Advantage Medical Policy manual is not intended to override the member Evidence of Coverage (EOC), which defines the insured's benefits, nor is it intended to dictate how providers are to practice medicine. Physicians and other health care providers are expected to exercise their medical judgment in providing the most appropriate care for the individual member.*

*The Medicare Advantage Medical Policies are designed to provide guidance regarding the decision-making process for the coverage or non-coverage of services or procedures in accordance with the member EOC and the Centers of Medicare and Medicaid Services (CMS) policies, when available. In the event of a conflict, applicable CMS policy or EOC language will take precedence over the Medicare Advantage Medical Policy. In the absence of CMS guidance for a requested service or procedure, the health plan may apply their Medical Policy Manual or MCG™ criteria, both of which are developed with an objective, evidence-based process using scientific evidence, current generally accepted standards of medical practice, and authoritative clinical practice guidelines.*

*Medicare and EOCs exclude from coverage, among other things, services or procedures considered to be investigational, cosmetic, or not medically necessary, and in some cases, providers may bill members for these non-covered services or procedures. Providers are encouraged to inform members in advance when they may be financially responsible for the cost of non-covered or excluded services.*

## **DESCRIPTION**

Myoelectric prostheses and orthotics are powered by electric motors with an external power source, and the joint movement of these prostheses or orthoses is driven by microchip-processed electrical activity in the muscles of the remaining limb or limb stump. Upper limb prostheses or orthoses (e.g., hand, wrist, and/or elbow) are used following amputation at any level from the hand to the shoulder, and the need for a prosthesis or orthotic can occur for a number of reasons, such as trauma, surgery, or congenital anomalies. The primary goals of the upper limb prosthesis/orthotics are to restore natural appearance and function, but achieving these goals also requires sufficient comfort and ease of use for continued acceptance by the wearer.

## **MEDICARE ADVANTAGE POLICY CRITERIA**

<b>CMS Coverage Manuals*</b>	See References <sup>[1,2]</sup>
<b>National Coverage Determinations (NCDs)*</b>	None
<b>Noridian Healthcare Solutions (Noridian) Local Coverage Determinations (LCDs) and Articles (LCAs)*</b>	None
<b>Medical Policy Manual</b>	<p><i>Medicare coverage guidance is not available for myoelectric prostheses for upper limbs, or their components. Therefore, the health plan's medical policy is applicable.</i></p> <p>Myoelectric Prosthetic and Orthotic Components for the Upper Limb, Durable Medical Equipment, <a href="#">Policy No. 80</a> (see <i>"NOTE" below</i>)</p>

**NOTE:** If a procedure or device lacks scientific evidence regarding safety and efficacy because it is investigational or experimental, the service is noncovered as not reasonable and necessary to treat illness or injury. ([Medicare IOM Pub. No. 100-04, Ch. 23, §30 A](#)). According to Title XVIII of the Social Security Act, §1862(a)(1)(A), only medically reasonable and necessary services are covered by Medicare. In the absence of a NCD, LCD, or other coverage guideline, CMS guidelines allow a Medicare Advantage Organization (MAO) to make coverage determinations, applying an **objective, evidence-based process, based on authoritative evidence**. ([Medicare IOM Pub. No. 100-16, Ch. 4, §90.5](#)). The Medicare Advantage Medical Policy - Medicine Policy No. M-149 - provides further details regarding the plan's evidence-assessment process (see Cross References).

## POLICY GUIDELINES

### REQUIRED DOCUMENTATION

The information below **must** be submitted for review to determine whether policy criteria are met. If any of these items are not submitted, it could impact our review and decision outcome:

- Documentation in chart notes and medical records of amputation or missing limb, as well as where the amputation is (above the wrist or below, etc.);
- Documentation regarding how standard body-powered prosthetic devices either cannot be used or are insufficient to meet the member's function needs in performing activities of daily living (ADLs);
- Results of functional testing (physical or computer model prosthesis) demonstrating the remaining musculature of the arm(s) contains the minimum microvolt threshold to allow operation of the myoelectric prosthetic device;
- Demonstrated sufficient neurological and cognitive function to effectively operate the prosthesis;

- Documented co-morbidities that could interfere with function of the prosthesis (e.g., neuromuscular disease, etc), if any exist;
- Functional evaluation by a qualified professional (e.g., prosthetist) indicating use of a myoelectric prosthesis and the associated components are necessary to meet the functional needs of the individual.
  - This includes consideration of the patient’s need for control, durability, function, usability, and that the device is necessary to perform instrumental activities of daily living, including job function, and that the device is *not* primarily for the purpose of leisure or recreational activities.

## REGULATORY STATUS

Examples of available myoelectric prostheses include, but may not be limited to, the following:

- The SensorHand™ by Advanced Arm Dynamics, which is described as having an AutoGrasp feature, an opening/closing speed of up to 300 mm/second, and advanced EMG signal processing.
- The Utah Arm 3 by Motion Control has a microprocessor interface that allows individualized adjustments to achieve maximum performance.
- The i-LIMB™ hand (Touch Bionics), sometimes referred to as the bionic hand, is the first commercially available myoelectric hand prosthesis with individually powered digits.
- ProDigits™, also from Touch Bionics, are prosthetic digits for one or more fingers in patients with amputation at a transmetacarpal level or higher.
- Otto Bock has a number of myoelectric hand and elbow prostheses including the AutoGrasp feature, the Michelangelo® Hand, and the Electrohand 2000 designed for children.
- LTI Boston Digital Arm™ System by Liberating Technologies Inc. is marketed as having greater torque than any other powered prosthetic elbows
- The LUKE Arm (previously known as the DEKA Arm System) can perform complex tasks with multiple simultaneous powered movements (e.g., movement of the elbow, wrist, and hand at the same time). In addition to the EMG electrodes, the LUKE Arm contains a combination of mechanisms including switches, movement sensors, and force sensors. The Luke Arm is the same shape and weight as an adult arm.
- These devices may be covered by LIVINGSKIN™, a high-definition silicone prosthesis created to resemble a patient’s natural skin.
- An example of a hybrid system is the ErgoArm (Otto Bock) which has a myoelectric hand and a cable-controlled elbow joint.
- The MyoPro (Myomo) is a myoelectric powered upper-extremity orthotic. This orthotic device weighs about 1.8 kilograms (4 pounds), has manual wrist articulation, and myoelectric initiated bi-directional elbow movement. The MyoPro detects weak muscle activity from the affected muscle groups. A therapist or prosthetist/orthoptist 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. Use of robotic devices for therapy has been reported. The MyoPro is the first myoelectric orthotic available for home use.

## CROSS REFERENCES

[Powered Knee Prosthesis, or Powered Ankle-Foot Prosthesis, and Microprocessor-Controlled Ankle-Foot Prosthesis](#), DME, Policy No. M-81

[Investigational \(Experimental\) Services and New and Emerging Medical Technologies and Procedures](#), Medicine, Policy No. M-149

## REFERENCES

1. Medicare Benefit Policy Manual, Pub. #100-02, Chapter 15 – Covered Medical and Other Health Services, [§120 – Prosthetic Devices](#)
2. Medicare Claims Processing Manual, Pub. #100-04, Chapter 20 - Durable Medical Equipment, Prosthetics, Orthotics, and Supplies (DMEPOS), [§10.1.3 – Prosthetics and Orthotics \(Leg, Arm, Back, and Neck Braces, Trusses, and Artificial Legs, Arms, and Eyes\) - Coverage Definition](#)
3. [Noridian Correct Coding - Billing of Powered L-Coded Items](#)
4. [Noridian Correct Coding - Articulating Digit\(s\) and Prosthetic Hands](#) (Doesn't allow additional coding for extra components for prostheses reported with L6880 as it is considered all-inclusive.)
5. [Noridian Correct Coding - MyoPro \(Myomo, Inc.\) Assist Device - Revised](#)
6. [Noridian RETIRED - Correct Coding - MyoPro \(Myomo, Inc.\) Assist Device](#)

## CODING

**NOTE:** For dates of service on or after January 1, 2019, specific HCPCS codes (L8701 or L8702) are available and should be used when reporting for the MyoPro® upper extremity assist device.<sup>[5]</sup> The MyoPro was reported with HCPCS code E1399 for services prior to January 1, 2019.<sup>[6]</sup>

If there is uncertainty regarding what code is appropriate, see the *Medicare Pricing, Data Analysis and Coding (PDAC)* Contractor's (Palmetto GBA) [Product Classification List](#) to determine what HCPCS coding should be used for a specific prosthetic or orthotic.

Codes	Number	Description
<b>CPT</b>	None	
<b>HCPCS</b>	E1399	Durable medical equipment, miscellaneous
	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)
	L6693	Upper extremity addition, locking elbow, forearm counterbalance

<b>Codes</b>	<b>Number</b>	<b>Description</b>
	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)
	L6881	Automatic grasp feature, addition to upper limb electric prosthetic terminal device
	L6882	Microprocessor control feature, addition to upper limb prosthetic 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, myoelectronic control of terminal device
	L6935	Below elbow, external power, self-suspended inner socket, removable forearm shell, Otto Bock or equal electrodes, cables, two batteries and one charger, myoelectronic 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, myoelectronic control of terminal device
	L6955	Above elbow, external power, molded inner socket, removable humeral shell, internal locking elbow, forearm, Otto Bock or equal electrodes, cables, two batteries and one charger, myoelectronic control of terminal device
	L6965	Shoulder disarticulation, 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, myoelectronic 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, myoelectronic control of terminal device
	L7007	Electric hand, switch or myoelectric controlled, adult
	L7008	Electric hand, switch or myoelectric controlled, pediatric
	L7009	Electric hook, switch or myoelectric controlled, adult
	L7045	Electric hook, switch or myoelectric controlled, pediatric
	L7180	Electronic elbow, microprocessor sequential control of elbow and terminal device
	L7181	Electronic elbow, microprocessor simultaneous control of elbow and terminal device
	L7190	Electronic elbow, adolescent, Variety Village or equal, myoelectronically controlled
	L7191	Electronic elbow, child, Variety Village or equal, myoelectronically controlled
	L7259	Electronic wrist rotator, any type
	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

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<b>Codes</b>	<b>Number</b>	<b>Description</b>
	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

**\*IMPORTANT NOTE:** Medicare Advantage medical policies use the most current Medicare references available at the time the policy was developed. Links to Medicare references will take viewers to external websites outside of the health plan's web control as these sites are not maintained by the health plan.