



Status

Active

Medical and Behavioral Health Policy

Section: Allied Health

Policy Number: VII-60

Effective Date: 05/28/2014

Blue Cross and Blue Shield of Minnesota medical policies do not imply that members should not receive specific services based on the recommendation of their provider. These policies govern coverage and not clinical practice. Providers are responsible for medical advice and treatment of patients. Members with specific health care needs should consult an appropriate health care professional.

MYOELECTRIC PROSTHESES FOR THE UPPER LIMB

Description: Upper limb prostheses are used for amputations at any level from the hand to the shoulder. The need for prosthesis can occur for a number of reasons including trauma, surgery, or congenital anomalies. The primary goals of the upper limb prosthesis are to restore natural appearance and function. Achieving these goals also requires sufficient comfort and ease of use for continued acceptance by the wearer. The difficulty of achieving these diverse goals with an upper limb prosthesis increases as the level of amputation (digits, hand, wrist, elbow, and shoulder), and thus the complexity of joint movement, increases.

Upper limb prostheses are classified into three categories depending on the means of generating movement at the joints: passive, body-powered, and electrically powered movement. All three types of prostheses have been in use for over 30 years; each possesses unique advantages and disadvantages. Myoelectric prostheses of the upper limb use muscle activity from the remaining limb for the control of joint movements. Electromyographic signals from the remaining limb stump are detected by surface electrodes, amplified, and then processed by a controller to drive battery-powered motors to move the hand, wrist, or elbow. Hybrid systems incorporate body-powered and myoelectric components to allow control of two joints at once. These systems may be used for amputations at or above the elbow.

Myoelectric hand attachments are similar in form to those offered with body-powered prostheses but are battery operated. These may include grasping mechanisms and individually powered digits. Partial hand myoelectric prostheses are designed to replace the function of digits in individuals missing one or more of their fingers as a result of partial-hand amputation.

Amputees should be evaluated by an independent qualified professional to determine the most appropriate prosthetic components and control mechanism (e.g., body-powered, myoelectric, or combination of body-powered and myoelectric). A trial period may be indicated to evaluate the tolerability and efficacy of the prosthesis in a real life setting.

Manufacturers must register prostheses with the restorative 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.

Available myoelectric devices include the Otto Bock myoelectric prosthesis (Otto Bock), the LTI Boston Digital Arm™ System (Liberating Technologies Inc.), and the Utah Arm Systems (Motion Control). Examples of myoelectric hand attachments include the ProDigits™ and i-LIMB™ devices (Touch Bionics) and the SensorHand™ (Advanced Arm Dynamics).

Policy:

- I. Myoelectric upper limb prosthetic components may be considered **MEDICALLY NECESSARY** when **all** of the following conditions are met:
 - A. The patient has an amputation or missing limb at the wrist or above (e.g., forearm, elbow, shoulder); **and**
 - B. Standard body-powered prosthetic devices cannot be used or are insufficient to meet the functional needs of the individual (e.g., gripping, releasing, holding, and coordinating movement of the prosthesis); **and**
 - C. The remaining musculature of the arm(s) contains the minimum microvolt threshold to allow operation of a myoelectric prosthetic device; **and**
 - D. The patient has demonstrated sufficient neurological and cognitive function to operate the prosthesis effectively; **and**
 - E. The patient is free of comorbidities that could interfere with function of the prosthesis (e.g., neuromuscular disease); **and**
 - F. Functional evaluation indicates that with training, use of a myoelectric prosthesis is likely to meet the functional needs (e.g., gripping, releasing, holding, and coordinating movement of the prosthesis) of the individual. This evaluation should consider the patient's needs for control, durability (maintenance), function (speed, work capability), and usability.
- II. A prosthesis with individually powered digits, including but not limited to a partial hand prosthesis, is considered **INVESTIGATIVE** due to the lack of clinical evidence demonstrating its impact on improved health outcomes.

Coverage:

Blue Cross and Blue Shield of Minnesota medical policies apply generally to all Blue Cross and Blue Plus plans and products. Benefit

plans vary in coverage and some plans may not provide coverage for certain services addressed in the medical policies.

Medicaid products and some self-insured plans may have additional policies and prior authorization requirements. Receipt of benefits is subject to all terms and conditions of the member's summary plan description (SPD). As applicable, review the provisions relating to a specific coverage determination, including exclusions and limitations. Blue Cross reserves the right to revise, update and/or add to its medical policies at any time without notice.

For Medicare NCD and/or Medicare LCD, please consult CMS or National Government Services websites.

Refer to the Pre-Certification/Pre-Authorization section of the Medical Behavioral Health Policy Manual for the full list of services, procedures, prescription drugs, and medical devices that require Pre-certification/Pre-Authorization. Note that services with specific coverage criteria may be reviewed retrospectively to determine if criteria are being met. Retrospective denial of claims may result if criteria are not met.

Coding:

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.

HCPCS:

L6025 Transcarpal/metacarpal or partial hand disarticulation prosthesis, external power, self-suspended, inner socket with removable forearm section, electrodes and cables, 2 batteries, charger, myoelectric control of terminal device

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)

L6925 Wrist disarticulation, external power, self-suspended inner socket, removable forearm shell, Otto Bock or equal electrodes, cables, 2 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, 2 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, 2 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, 2 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, 2 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, 2 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

L7190 Electronic elbow, adolescent, Variety Village or equal, myoelectronically controlled

L7191 Electronic elbow, child, Variety Village or equal, myoelectronically controlled

**Policy
History:**

Developed June 8, 2011

Most recent history:

Reviewed June 13, 2012

Revised June 12, 2013

Reviewed May 14, 2014

**Cross
Reference:**

VII-16 Microprocessor-Controlled Prostheses for the Lower Limb

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