UnitedHealthcare®

COVERAGE DETERMINATION GUIDELINE

SPECIALIZED, MICROPROCESSOR OR MYOELECTRIC LIMBS

Guideline Number: CDG.020.02
Effective Date: May 1, 2014

Related Coverage Determination Guidelines:
Prosthetic Devices and Wigs

INSTRUCTIONS FOR USE

This Coverage Determination Guideline provides assistance in interpreting certain standard UnitedHealthcare benefit plans. When deciding coverage, the enrollee specific document must be referenced. The terms of an enrollee's document (e.g., Certificates of Coverage (COCs), Schedules of Benefits (SOBs), or Summary Plan Descriptions (SPDs), and Medicaid State Contracts) may differ greatly from the standard benefit plans upon which this guideline is based. In the event of a conflict, the enrollee's specific benefit document supersedes these guidelines. All reviewers must first identify enrollee eligibility, any federal or state regulatory requirements and the plan benefit coverage prior to use of this guideline. Other coverage determination guidelines and medical policies may apply. UnitedHealthcare reserves the right, in its sole discretion, to modify its coverage determination guidelines and medical policies as necessary. This Coverage Determination Guideline does not constitute medical advice.

UnitedHealthcare may also use tools developed by third parties, such as the MCG™ Care Guidelines, to assist us in administering health benefits. The MCG™ Care Guidelines are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.

COVERAGE RATIONALE

Plan Document Language

Before using this guideline, please check enrollee's specific plan document and any federal or state mandates, if applicable.

Essential Health Benefits for Individual and Small Group:
For plan years beginning on or after January 1, 2014, the Affordable Care Act of 2010 (ACA) requires fully insured non-grandfathered individual and small group plans (inside and outside of Exchanges) to provide coverage for ten categories of Essential Health Benefits ("EHBs"). Large group plans (both self-funded and fully insured), and small group ASO plans, are not subject to the requirement to offer coverage for EHBs. However, if such plans choose to provide coverage for benefits which are deemed EHBs (such as maternity benefits), the ACA requires all dollar limits on those benefits to be removed on all Grandfathered and Non-Grandfathered plans. The determination of which benefits constitute EHBs is made on a state by state basis. As such, when using this guideline, it is important to refer to the enrollee's specific plan document to determine benefit coverage.

Indications for Coverage

Computerized, bionic, microprocessor or myoelectric terms are considered the same for the purpose of this policy. Some states may require coverage of prosthetics that UnitedHealthcare may not otherwise consider covered.

Computerized or microprocessor limbs are based on a patient's current functional capabilities and his/her expected functional rehabilitation potential. If more than one prosthetic limb meets a patient's prosthetic rehabilitation needs, the least costly prosthetic will be approved.

Evidence is insufficient to permit conclusions regarding the effect of a microprocessor-controlled prosthesis on health outcomes in limited community ambulators. Evidence is also insufficient to permit conclusions regarding the effect of a next-generation microprocessor-controlled prosthesis on health outcomes. Therefore, these are considered investigational.

1. Computerized Prosthetic limbs are a covered health service when criteria are met:
    a) Ordered by a physician; **and**
    b) Patient is evaluated for his/her individual needs by a healthcare professional with the qualifications and training and under the supervision of the ordering physician to make an evaluation (documentation should accompany the order); **and**
    c) Ordering physician signs the final prosthetic proposal; **and**
    d) The records must document the patient's current functional capabilities and his/her expected functional rehabilitation potential, including an explanation for the difference, if that is the case. (It is recognized within the functional classification hierarchy that bilateral amputees often cannot be strictly bound by functional level classifications); **and**
    e) Prosthetic replaces all or part of a missing limb; **and**
    f) Prosthetic will help patient regain or maintain function; **and**
    g) Patient is willing and able to participate in the training for the use of the prosthetic (especially important in use of a computerized upper limb); **and**
    h) Patient is able to physically function at a level necessary for a computerized prosthetic or microprocessor, e.g. hand, leg or foot

2. Coverage of computerized and specialized lower limb prostheses is based on maximum prosthetic function level of the patient (see Lower Limb Rehabilitation Classification Levels 1-4 under Definition section below.)
    a) Patient meets criteria in #1 (one) above; **and**
    b) Patient has or is able to gain Lower Limb Rehabilitation Classification Levels 3 or 4 for prosthetic ambulation (see Definition section below)
        A. Microprocessor or specialized foot or feet;
            i. Microprocessor controlled ankle foot system (L5973), energy storing foot (L5976), multi-axial ankle/foot (L5978), dynamic response foot with multi-axial ankle (L5979), flex foot system (L5980), flex-walk system or equal (L5981), or shank foot system with vertical loading pylon (L5987) is indicated for patients whose functional level is 3 or above. (A user adjustable heel height feature (L5990) will be denied as not meeting criteria for coverage.
        B. Knees: Basic lower extremity prostheses include a single axis, constant friction knee. Other prosthetic knees are indicated based upon functional classification.
            i. A high activity knee control frame (L5930) (e.g. i Ottobock C-Leg® Microprocessor Knee System) is covered for patients whose function level is 4.
            ii. A fluid, pneumatic, or electronic knee (L5610, L5613, L5614, L5722-L5780, L5814, L5822-L5840, L5848, L5856, L5857, and L5858) is indicated for patients whose functional level is 3 or above.

iii. L5859 is only covered when the beneficiary meets all of the criteria below:
- Has a microprocessor (swing and stance phase type (L5856)) controlled (electronic) knee
- K3 functional level only
- Weight greater than 110 lbs and less than 275 lbs
- Has a documented comorbity of the spine and/or sound limb affecting hip extention and/or quadriceps function that impairs K-3 level function with the use of a microprocessor-controlled knee alone
- Is able to make use of a product that requires daily charging
- Is able to understand and respond to error alerts and alarms indicating problems with the function of the unit

C. Ankles:
i. An axial rotation unit (L5982-L5986) is indicated for patients whose Lower Limb Rehabilitation Classification is 2 or above.
ii. A microprocessor controlled ankle foot system (L5973), energy storing foot (L5976), dynamic response foot with multi-axial ankle (L5979), flex foot system (L5980), flex-walk system or equal (L5981), or shank foot system with vertical loading pylon (L5987) is covered for beneficiaries whose functional level is 3 or above.

D. Sockets:
i. More than 2 test (diagnostic) sockets (L5618-L5628) for an individual prosthesis are not indicated unless there is documentation in the medical record which justifies the need. Exception: a test socket is not indicated for an immediate prosthesis (L5400-L5460)
ii. No more than two of the same socket inserts (L5654-L5665, L5673, L5679, L5681, and L5683) are allowed per individual prosthesis at the same time.
iii. Socket replacements are indicated if there is adequate documentation of functional and/or physiological need. It is recognized that there are situations where the explanation includes but is not limited to: changes in the residual limb; functional need changes; or irreparable damage or wear/tear due to excessive patient weight or prosthetic demands of very active amputees.

3. Myoelectric Upper Limbs (arms, joints and hands) are covered when criteria are met:
a) Patient meets all the criteria in #1 (one) above; **and**
b) Patient has a congenital missing or dysfunctional arm and/or hand; **or**
c) Patient has a traumatic or surgical amputation of the arm (above or below the elbow); **and**
d) The remaining musculature of the arm(s) contains the minimum microvolt threshold to allow operation of a myoelectric prosthetic device (usually 3-5 muscle groups must be activated to use a computerized arm/hand); **and**
e) A standard body-powered prosthetic device cannot be used or is insufficient to meet the functional needs of the individual in performing activities of daily living.

Medical Necessity Plans:

Use the criteria above where applicable.

Coverage Limitations and Exclusions

1. Coverage is not available for prosthetics if the patient is eligible through a governmental program for a prosthetic due to military service related injuries and/or primary insurance coverage, e.g., VA, Medicare or TriCare.

2. Replacement of prosthetic devices due to misuse, malicious damage or gross neglect or to replace lost or stolen items(Check enrollee's plan specific document)

3. Repairs to prosthetic devices due to misuse, malicious damage or gross neglect (Check enrollee's plan specific document)

4. If more than one prosthetic device can meet the enrollee's functional needs, benefits are only available for the prosthetic device that meets the minimum specifications for the enrollee's needs. (Check enrollee's plan specific document)

5. Coverage beyond any frequency limits specified in the enrollee's plan specific documents. (Check enrollee's plan specific document)

DEFINITIONS

Lower Limb Rehabilitation Classification Levels

- **For Lower Limb Determinations**: A clinical assessments of patient rehabilitation potential must be based on the following classification levels:
  - **Level 0:** Does not have the ability or potential to ambulate or transfer safely with or without assistance and prosthesis does not enhance their quality of life or mobility. **Prostheses will be denied as not meeting criteria for coverage if the patient's potential functional level is 0.**
  - **Level 1:** Has the ability or potential to use prosthesis for transfers or ambulation on level surfaces at fixed cadence. Typical of the limited and unlimited household ambulator.
  - **Level 2:** Has the ability or potential for ambulation with the ability to traverse low level environmental barriers such as curbs, stairs or uneven surfaces. Typical of the limited community ambulator.
  - **Level 3:** Has the ability or potential for ambulation with variable cadence. Typical of the community ambulator who has the ability to traverse most environmental barriers and may have vocational, therapeutic, or exercise activity that demands prosthetic utilization beyond simple locomotion.
  - **Level 4:** Has the ability or potential for prosthetic ambulation that exceeds basic ambulation skills, exhibiting high impact, stress, or energy levels. Typical of the prosthetic demands of the child, active adult, or athlete.
- **VA Requirements for Computerized Lower Limbs:** Demonstrated patient need for long distance ambulation at variable rates (greater than 400 yards) on a daily basis. Use of the limb in the home or for basic community ambulation is not sufficient to justify provision of the computerized limb over standard limb applications. Demonstrated patient need for regular ambulation on uneven terrain or for regular use on stairs. Use of the limb for limited stair climbing in the home or employment environment is not sufficient evidence; for prescription of this device Over standard prosthetic application.

Microprocessor Controlled Ankle Foot Prosthesis: (e.g., Proprio Foot) is able to actively change the ankle angle and to identify sloping gradients and ascent or descent of stairs as the result of microprocessor-control and sensor technology.

Microprocessor Controlled Lower Limb Prostheses: Microprocessor controlled knees offer dynamic control through sensors in the shin. Microprocessor controlled knees attempt to simulate normal biological knee function by offering variable resistance control to the swing or stance phases of the gait cycle. This allows the user to safely perform ramp and stair descent in a step-over-step manner. The swing-rate adjustments allow the knee to respond to rapid changes in cadence. Microprocessor controlled knee flexion enhances the stumble recovery capability of the patient by preventing unexpected knee buckling. Prosthetic knees such as the microprocessor controlled knee that focus on better control of flexion abilities without reducing stability have the potential to improve gait pattern, wearer confidence, and safety of ambulation. The microprocessor knee is more beneficial at higher ambulation speed in physically fit patients. Available devices include but are not limited to Otto-Bock C-Leg device®, the Ossur RheoKnee® or the Endolite Intelligent Prosthesis®

A microprocessor controlled ankle foot prosthesis (e.g., Proprio Foot) is able to actively change the ankle angle and to identify sloping gradients and ascent or descent of stairs as the result of microprocessor-control and sensor technology.

Myoelectric Prosthetic: A myoelectric prosthesis uses electromyography signals or potentials from voluntarily contracted muscles within a person's residual limb via the surface of the skin to control the movements of the prosthesis, such as elbow flexion/extension, wrist supination/pronation or hand opening/closing of the fingers. Prosthesis of this type utilizes the residual neuro-muscular system of the human body to control the functions of an electric powered prosthetic hand, wrist or elbow. This is as opposed to a traditional electric switch prosthesis, which requires straps and/or cables actuated by body movements to actuate or operate switches that control the movements of a prosthesis or one that is totally mechanical. It has a self-suspending socket with pick up electrodes placed over flexors and extensors for the movement of flexion and extension respectively.

Prosthetist: A person, who measures, designs, fabricates, fits, or services a prosthesis as prescribed by a licensed physician, and who assists in the formulation of the prosthesis prescription for the replacement of external parts of the human body lost due to amputation or congenital deformities or absences. A prosthetist is a person that has been certified to fit prostheses to residual limbs of the upper and lower extremities.

Prosthetic Device: An external device that replaces all or part of a missing body part.

Upper Limb Prosthetic Categories

(Upper limb prostheses are classified into 3 categories depending on the means of generating movement at the joints: passive, body-powered, and electrically powered movement):

- The passive prosthesis is the lightest of the three types and is described as the most comfortable. Since the passive prosthesis must be repositioned manually, typically by moving it with the opposite arm, it cannot restore function.
- The body-powered prosthesis utilizes a body harness and cable system to provide functional manipulation of the elbow and hand. Voluntary movement of the shoulder and/or limb stump extends the cable and transmits the force to the terminal device. Prosthetic hand attachments, which may be claw-like devices that allow good grip strength and visual control of objects or latex-gloved devices that provide a more natural appearance at the expense of control, can be opened and closed by the cable system. Patient complaints with body-powered prostheses include harness discomfort, particularly the wear temperature, wire failure, and the unattractive appearance.
- Myoelectric prostheses use muscle activity from the remaining limb for the control of joint movement. Electromyographic (EMG) signals from the limb stump are detected by surface electrodes, amplified, and then processed by a controller to drive battery-powered motors

that move the hand, wrist, or elbow. Although upper arm movement may be slow and limited to one joint at a time, myoelectric control of movement may be considered the most physiologically natural. Myoelectric hand attachments are similar in form to those offered with the body-powered prosthesis, but are battery powered. An example of recently available technology is 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. Patient dissatisfaction with myoelectric prostheses includes the increased cost, maintenance (particularly for the glove), and weight.

- A hybrid system, a combination of body-powered and myoelectric components, may be used for high-level amputations (at or above the elbow). Hybrid systems allow control of two joints at once (i.e., one body-powered and one myoelectric) and are generally lighter and less expensive than a prosthesis composed entirely of myoelectric components

APPLICABLE CODES

The Current Procedural Terminology (CPT®) and Healthcare Common Procedure Coding System (HCPCS) codes listed in this guideline are for reference purposes only. Listing of a service code in this guideline does not imply that the service described by this code is a covered or non-covered health service. Coverage is determined by the enrollee specific benefit document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claims payment. Other policies and coverage determination guidelines may apply.

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Limited to specific procedure codes?	☐ YES ☒ NO

HCPCS Procedure Code	**Description**
This is not an all-inclusive list. For a complete listing of prosthetic coding, please see the Coverage Determination Guideline titled Prosthetic Devices and Wigs.	
L5856	Addition to lower extremity prosthesis, endoskeletal knee-shin system, microprocessor control feature, swing and stance phase, includes electronic sensor(s), any type
L5857	Addition to lower extremity prosthesis, endoskeletal knee-shin system, microprocessor control feature, swing phase only, includes electronic sensor(s), any type
L5858	Addition to lower extremity prosthesis, endoskeletal knee shin system, microprocessor control feature, stance phase only, includes electronic sensor(s), any type
L5973	Endoskeletal ankle foot system, microprocessor controlled feature, dorsiflexion and/or plantar flexion control, includes power source
L6025	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 -
L6629	Upper extremity addition, quick disconnect lamination collar with coupling piece, otto bock or equal
L6715	Terminal device, multiple articulating digit, includes motor (s), initial issue
L6880	Electric hand, switch or myoelectric controlled, independently articulating
L6882	Microprocessor control feature, addition to upper limb prosthetic terminal device

HCPCS Procedure Code	Description
L6890	Addition to upper extremity prosthesis, glove for terminal device, any material, prefabricated, includes fitting and adjustment
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
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
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
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
L7260	Electronic wrist rotator, otto bock or equal
L7261	Electronic wrist rotator, for utah arm
The following codes are specialized codes. These codes may be allowed for consideration if a body powered system has effectively been ruled out.	
L6611	Addition to upper extremity prosthesis, external powered, additional switch, any type
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

HCPCS Procedure Code	Description
L6920	Wrist disarticulation, external power, self-suspended inner socket, removable forearm shell, ottobock or equal switch, cables, two batteries and one charger, switch control of terminal device
L6930	Below elbow, external power, self-suspended inner socket, removable forearm shell, otto bock or equal switch, cables, two batteries and one charger, switch 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
L6950	Above elbow, external power, molded inner socket, removable humeral shell, internal locking elbow, forearm, otto bock or equal switch, cables, two batteries and one charger, switch control of terminal device
L6960	Shoulder disarticulation, 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
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
L7040	Prehensile actuator, switch controlled

Limited to specific diagnosis codes?	☐ YES ☒ NO
Limited to place of service (POS)?	☐ YES ☒ NO
Limited to specific provider type?	☐ YES ☒ NO
Limited to specific revenue codes?	☐ YES ☒ NO

REFERENCES

1. BCBS of Alabama, Medical Policy #083-Microprocessor-Controlled Lower Limb Prosthesis, Effective February 2010; Revised August 2013@ https://www.bcbsal.org/providers/policies/Accessed February 2, 2014
2. CGS Administrator, Lower Limb Prosthesis, L11442, Effective 01/01/2013
3. Noridian Jurisdiction D- DMERC LCD Lower Limb Prosthetics http://www.cms.gov/medicare-coverage-database/overview-and-quick-search.aspx
4. Department of Veterans Affairs Department of Defense; VA/DoD CLINICAL PRACTICE GUIDELINE FOR REHABILITATION OF LOWER LIMB AMPUTATION; http://www.healthquality.va.gov/amputation/amp_v652.pdf (Accessed February 2, 2014).
5. Össur [Website] Proprio Foot. Available at: http://www.ossur.com/?PageID=13460 Accessed February 2, 201

GUIDELINE HISTORY/REVISION INFORMATION

Date	Action/Description
05/01/2014	• Revised coverage rationale/indications for coverage o Removed language indicating this policy should only be used if the enrollee's COC or SPD include coverage of "microprocessor, computerized/assisted or bionic prosthetics o Added language to indicate evidence is insufficient to permit conclusions regarding the effect of a microprocessor-controlled prosthesis on health outcomes in limited community ambulators. Evidence is also insufficient to permit conclusions regarding the effect of a next-generation microprocessor-controlled prosthesis on health outcomes. Therefore, these are considered investigational o Updated coverage criteria for **knees**; added language to indicate L5859 is only covered when the beneficiary meets all of the criteria below: ▪ Has a microprocessor (swing and stance phase type (L5856)) controlled (electronic) knee ▪ K3 functional level only ▪ Weight greater than 110 lbs and less than 275 lbs ▪ Has a documented comorbity of the spine and/or sound limb affecting hip extention and/or quadriceps function that impairs K-3 level function with the use of a microprocessor-controlled knee alone ▪ Is able to make use of a product that requires daily charging ▪ Is able to understand and respond to error alerts and alarms indicating problems with the function of the unit o Updated coverage criteria for **ankles**; added language to indicate a microprocessor controlled ankle foot system (L5973), energy storing foot (L5976), dynamic response foot with multi-axial ankle (L5979), flex foot system (L5980), flex-walk system or equal (L5981), or shank foot system with vertical loading pylon (L5987) is covered for beneficiaries whose functional level is 3 or above • Updated definitions; added definition of "microprocessor controlled ankle foot prosthesis" • Updated list of applicable HCPCS codes; removed L7274 (deleted effective 12/31/2011) • Archived previous policy version CDG.020.01