Lower Extremity Prosthetics ~~Prosthetic Devices, Specialized, Microprocessor or Myoelectric Limbs~~ (for Louisiana Only)

Policy~~Guideline~~ Number: ~~CS104LA.L~~ **CS361LA.A**
Effective Date: ~~October 1, 2021~~ **TBD**

➲ Instructions for Use

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Application

This ~~Coverage Determination Guideline~~**Medical Policy** only applies to the state of Louisiana.

Coverage Rationale

A lower extremity prosthetic for amputations is proven and medically necessary in certain circumstances. For medical necessity clinical coverage criteria, refer to InterQual® CP: Durable Medical Equipment Prosthetics, Lower Extremity.

Click here to view the InterQual® criteria.

An endoskeletal knee-shin system with microprocessor control feature (swing/stance phase) is unproven and not medically necessary due to insufficient evidence of efficacy for the following:

- **Amputee with functional classification status of K1 or K2, and**
- **Transfemoral (above knee) amputation (includes knee disarticulation), or**
- **Hip disarticulation or hemipelvectomy**

A combined microprocessor-controlled ankle foot system with power assist is unproven and not medically necessary due to insufficient evidence of efficacy for the following:

- **Transfemoral (above knee) amputation (includes knee disarticulation)**
- **Transtibial (below knee) amputation**

- **Hip disarticulation or hemipelvectomy**

~~**Indications for Coverage**~~

~~Implantable devices/prostheses, such as artificial heart valves, are not prosthetics. If covered, these devices would be covered as a surgical service.~~

~~***Prosthetic Devices***~~

~~An initial or replacement prosthetic device is a covered health care service when all of the following criteria are met:~~

- ~~The prosthetic device replaces a limb or a body part, limited to:~~
  - ~~Artificial arms, legs, feet, and hands~~
  - ~~Artificial face, eyes, ears, and nose~~
  - ~~Breast prosthesis as required by the *Women's Health and Cancer Rights Act of 1998*. Benefits include mastectomy bras~~
- ~~The prosthetic device is ordered by or under the direction of a physician; and~~
- ~~The prosthetic device is Medically Necessary; and~~
- ~~The prosthetic device is not subject to a coverage exclusion~~

~~For limb prosthetics, the coverage determination must be made in light of the member's functional needs or potential functional abilities. Member's potential functional abilities are based on reasonable expectations of the Prosthetist, and treating physician, considering factors including, but not limited to:~~

- ~~The member's past history (including prior prosthetic use if); and~~
- ~~The member's current condition including the status of the residual limb and the nature of other medical problems~~

~~***Computerized Prosthetic Limbs***~~

~~For the purposes of this policy, the terms computerized, bionic, microprocessor, or myoelectric prostheses are considered the same.~~

~~Computerized Prosthetic limbs are a covered health care service when all of the following criteria are met:~~

- ~~Each of the criteria in the Prosthetic Devices section are met; and~~
- ~~Member is evaluated for his/her individual needs by a healthcare professional with the qualifications and training to make an evaluation under the supervision of the ordering physician (documentation should accompany the order); and~~
- ~~Ordering physician signs the final prosthetic proposal; and~~
- ~~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~~
- ~~Prosthetic replaces all or part of a missing limb; and~~
- ~~Prosthetic will help patient regain or maintain function; and~~
- ~~Member 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~~
- ~~Member is able to physically function at a level necessary for a computerized prosthetic or microprocessor, e.g., hand, leg, or foot~~

Note: A supplier-produced record, even if signed by a physician, does not establish Medical Necessity.

Lower Limbs (Computerized and/or Specialized)

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).

- Member meets each criteria for computerized prosthetic limbs; and
- Member has or is able to gain Lower Limb Rehabilitation Classification Levels 2-4 for prosthetic ambulation

HCPCS Code	Description
Ankles	
L5982	Lower limb rehabilitation classification is 2 or above
L5984	Lower limb rehabilitation classification is 2 or above
L5985	Lower limb rehabilitation classification is 2 or above
L5986	Lower limb rehabilitation classification is 2 or above
Hips	
L5961	Functional level is 3 or above
Knees **Note:** Basic lower extremity prostheses include a single axis, constant friction knee. Other prosthetic knees are indicated based upon functional classification	
K1022	Functional level is 3 or above
L5930	Functional level is 4
L5610	Functional level is 3 or above
L5613	Functional level is 3 or above
L5614	Functional level is 3 or above
L5722	Functional level is 3 or above
L5724	Functional level is 3 or above
L5726	Functional level is 3 or above
L5728	Functional level is 3 or above
L5780	Functional level is 3 or above
L5814	Functional level is 3 or above
Knees **Note:** Basic lower extremity prostheses include a single axis, constant friction knee. Other prosthetic knees are indicated based upon functional classification	
L5822	Functional level is 3 or above
L5824	Functional level is 3 or above
L5826	Functional level is 3 or above
L5828	Functional level is 3 or above
L5830	Functional level is 3 or above
L5840	Functional level is 3 or above

HCPCS Code	Description
L5848	Functional level is 3 or above
L5856	Functional level is 3 or above
L5857	Functional level is 3 or above
L5858	Functional level is 3 or above
L5859	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 comorbidity of the spine and/or sound limb affecting hip extension 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
Microprocessor or Specialized Foot or Feet **Note:** A user adjustable heel height feature (L5990) will be denied as not meeting criteria for coverage.	
L5972	Functional level is 2 or above
L5973	Functional level is 3 or above
L5976	Functional level is 3 or above
L5978	Functional level is 2 or above
L5979	Functional level is 3 or above
L5980	Functional level is 3 or above
L5981	Functional level is 3 or above
L5987	Functional level is 3 or above
Sockets **Note:** • Exception: A test socket is not indicated for an immediate prosthesis (L5400-L5460). • 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: o Changes in the residual limb; o Functional need changes; o Or irreparable damage or wear/tear due to excessive member weight or prosthetic demands of very active amputees.	
L5618	More than 2 test (diagnostic) sockets for an individual prosthesis are not indicated unless there is documentation in the medical record which justifies the need
L5620	More than 2 test (diagnostic) sockets for an individual prosthesis are not indicated unless there is documentation in the medical record which justifies the need

~~HCPCS Code~~	~~Description~~
~~Sockets~~ ~~Note:~~ ~~• Exception: A test socket is not indicated for an immediate prosthesis (L5400-L5460).~~ ~~• 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:~~ ~~o Changes in the residual limb;~~ ~~o Functional need changes;~~ ~~o Or irreparable damage or wear/tear due to excessive member weight or prosthetic demands of very active amputees.~~	
~~L5622~~	~~More than 2 test (diagnostic) sockets for an individual prosthesis are not indicated unless there is documentation in the medical record which justifies the need~~
~~L5624~~	~~More than 2 test (diagnostic) sockets for an individual prosthesis are not indicated unless there is documentation in the medical record which justifies the need~~
~~L5626~~	~~More than 2 test (diagnostic) sockets for an individual prosthesis are not indicated unless there is documentation in the medical record which justifies the need~~
~~L5628~~	~~More than 2 test (diagnostic) sockets for an individual prosthesis are not indicated unless there is documentation in the medical record which justifies the need~~
~~L5654~~	~~No more than two of the same socket inserts are allowed per individual prosthesis at the same time~~
~~L5655~~	~~No more than two of the same socket inserts are allowed per individual prosthesis at the same time~~
~~L5656~~	~~No more than two of the same socket inserts are allowed per individual prosthesis at the same time~~
~~L5658~~	~~No more than two of the same socket inserts are allowed per individual prosthesis at the same time~~
~~L5661~~	~~No more than two of the same socket inserts are allowed per individual prosthesis at the same time~~
~~L5665~~	~~No more than two of the same socket inserts are allowed per individual prosthesis at the same time~~
~~L5673~~	~~No more than two of the same socket inserts are allowed per individual prosthesis at the same time~~
~~L5679~~	~~No more than two of the same socket inserts are allowed per individual prosthesis at the same time~~
~~L5681~~	~~No more than two of the same socket inserts are allowed per individual prosthesis at the same time~~
~~L5683~~	~~No more than two of the same socket inserts are allowed per individual prosthesis at the same time~~

~~***Myoelectric Upper Limbs (Arms, Joints, and Hands)***~~

~~Myoelectric upper limbs (arms, joints, and hands) are eligible for coverage and are Medically Necessary when the following criteria are met:~~

- ~~Member meets all the criteria for computerized prosthetic limbs above; and~~
- ~~Member has a congenital missing or dysfunctional arm and/or hand; or~~
- ~~Member has a traumatic or surgical amputation of the arm (above or below the elbow); and~~
- ~~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), no external switch; and~~
- ~~A standard passive or body-powered Prosthetic Device cannot be used or is insufficient to meet the functional needs of the individual in performing activities of daily living (ADL's); and~~
- ~~The medical records must indicate the specific need for the technologic or design features~~

Definitions

Activities of Daily Living (ADLs): basic tasks people need to do to function and interact such as bathing, grooming, dressing, toilet use, eating, and physical ambulation. (Mlinac and Feng, 2016, Edemekong et al., 2022)

Instrumental Activities of Daily Living (IADLs): a higher cognitive and complex activity related to independent living such as shopping, transportation, meal preparation, housecleaning, managing finances and managing medications. (Mlinac and Feng, 2016, Edemekong et al., 2022)

CMS Modifiers/Medicare Functional~~Check the definitions within the member benefit plan document that supersede the definitions below.~~

~~**Lower Limb Rehabilitation**~~ Classification **Level (MFCL):** ~~**Levels:**~~ A clinical **assessments** ~~assessment~~ of **member** ~~patient~~ rehabilitation potential must be based on the following classification levels:

- **Modifier K0 (MFLC-0):** ~~**K-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.
- **Modifier K1 (MFLC-1):** ~~**K-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.
- **Modifier K2 (MFLC-2):** ~~**K-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.
- **Modifier K3 (MFLC-3):** ~~**K-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.
- **Modifier K4 (MFLC-4):** ~~**K-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.

(CMS Health Care Procedures Coding System (HCPCS)/Theevan et al. (2011))

Medically Necessary: **health** ~~Health~~ care services that are all of the following as determined by **us** ~~UnitedHealthcare~~ or our designee:

- · In accordance with Generally Accepted Standards of Medical Practice.
- · Clinically appropriate, in terms of type, frequency, extent, service site and duration, and considered effective for **your** ~~the member's~~ Sickness, Injury, Mental Illness, substance-related and addictive disorders, disease or its symptoms.
- · Not mainly for **your** ~~the member's~~ convenience or that of **your** ~~the member's~~ doctor or other health care provider.
- · Not more costly than an alternative drug, service(s), service site or supply that is at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of your Sickness, Injury, disease or symptoms~~.~~

(Certificate of Coverage 2018)

~~**Generally Accepted Standards of Medical Practice are standards that are based on credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community, relying primarily on controlled clinical trials, or, if not available, observational studies from more than one institution that suggest a causal relationship between the service or treatment and health outcomes.**~~

~~**If no credible scientific evidence is available, then standards that are based on Physician specialty society recommendations or professional standards of care may be considered. UnitedHealthcare has the right to consult expert opinion in determining whether health care services are Medically Necessary. The decision to apply Physician specialty society recommendations, the choice of expert and the determination of when to use any such expert opinion, shall be determined by UnitedHealthcare.**~~

~~**UnitedHealthcare develops and maintains clinical policies that describe the Generally Accepted Standards of Medical Practice scientific evidence, prevailing medical standards and clinical guidelines supporting UnitedHealthcare's determinations regarding specific services. These clinical policies (as developed by UnitedHealthcare and revised from time to time), are available to Covered Persons through myuhc.com or the telephone number on the member's ID card. They are also available to Physicians and other health care professionals on UHCprovider.com.**~~

Microprocessor Controlled Ankle Foot Prosthesis: (e~~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 **Device** ~~device~~. 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. The swing-rate adjustments allow the knee to respond to rapid changes in cadence. Microprocessor controlled knee flexion enhances the stumble recovery capability. 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. Available devices include but are not limited to Otto-Bock C-Leg device®, the Ossur RheoKnee® —or the Endolite Intelligent Prosthesis®.

Modifier: a two-position code that is added to the end of a code to clarify the services being billed (CMS Health Care Procedures Coding System (HCPCS)). K0 through K4 are HCPCS level II modifiers.

Myoelectric Prosthetic: A prosthetic device operated by battery-powered electric motors that are activated through electrodes by the myoelectric potentials provided by muscles (Medical Dictionary).

~~**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 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.~~

Prosthesis: a man-made substitute for ~~**Prosthetic Device:** An external device that replaces all or part~~ of a missing body part (American Cancer Society®).~~.~~

Prosthetist: a healthcare professional who makes and fits artificial limbs (prostheses) for people with disabilities. This includes artificial legs and arms for people who have had amputations due to conditions such as cancer, diabetes, or injury (John Hopkins Medicine).

~~**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.~~

~~**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.~~

- ~~**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.~~
- ~~**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.~~
- ~~**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. Patient dissatisfaction with myoelectric prostheses includes the increased lack of proprioception, cost, maintenance (particularly for the glove), and weight.~~

- ~~**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.~~

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by federal, state or contractual requirements 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 claim payment. Other Policies and ~~Coverage Determination~~ Guidelines may apply.

CPT~~CDT/HCPCS~~ Code	Description
Code Table Subheading~~Additions to Upper Extremity~~	
~~L7400~~	~~Addition to upper extremity prosthesis, below elbow/wrist disarticulation, ultralight material (titanium, carbon fiber or equal)~~
~~L7401~~	~~Addition to upper extremity prosthesis, above elbow disarticulation, ultralight material (titanium, carbon fiber or equal)~~
~~L7402~~	~~Addition to upper extremity prosthesis, shoulder disarticulation/interscapular thoracic, ultralight material (titanium, carbon fiber or equal)~~
~~L7403~~	~~Addition to upper extremity prosthesis, below elbow/wrist disarticulation, acrylic material~~
~~L7404~~	~~Addition to upper extremity prosthesis, above elbow disarticulation, acrylic material~~
~~L7405~~	~~Addition to upper extremity prosthesis, shoulder disarticulation/interscapular thoracic, acrylic material~~
~~L7499~~	~~Upper extremity prosthesis, not otherwise specified~~
~~**Breast Prosthesis**~~ ~~The codes listed under "breast prosthesis" are always covered even when an exclusion for prosthetic devices exists. Coverage is required for these codes per the Women's Health and Cancer Rights Act of 1998.~~	
~~A4280~~	~~Adhesive skin support attachment for use with external breast prosthesis, each~~
~~L8000~~	~~Breast prosthesis, mastectomy bra, without integrated breast prosthesis form, any size, any type~~

CPT~~CDT/HCPCS~~ Code	Description
~~Breast Prosthesis~~	
~~The codes listed under "breast prosthesis" are always covered even when an exclusion for prosthetic devices exists. Coverage is required for these codes per the Women's Health and Cancer Rights Act of 1998.~~	
~~L8001~~	~~Breast prosthesis, mastectomy bra, with integrated breast prosthesis form, unilateral, any size, any type~~
~~L8002~~	~~Breast prosthesis, mastectomy bra, with integrated breast prosthesis form, bilateral, any size, any type~~
~~L8010~~	~~Breast prosthesis, mastectomy sleeve~~
~~L8015~~	~~External breast prosthesis garment, with mastectomy form, post mastectomy~~
~~L8020~~	~~Breast prosthesis, mastectomy form~~
~~L8030~~	~~Breast prosthesis, silicone or equal, without integral adhesive~~
~~L8031~~	~~Breast prosthesis, silicone or equal, with integral adhesive~~
~~L8032~~	~~Nipple prosthesis, prefabricated, reusable, any type, each~~
~~L8033~~	~~Nipple prosthesis, custom fabricated, reusable, any material, any type, each~~
~~L8035~~	~~Custom breast prosthesis, post mastectomy, molded to patient model~~
~~L8039~~	~~Breast prosthesis, not otherwise specified~~
~~S8460~~	~~Camisole, postmastectomy~~
~~Ear Prosthesis~~	
~~D5914~~	~~Auricular prosthesis~~
~~D5927~~	~~Auricular prosthesis, replacement~~
~~L8045~~	~~Auricular prosthesis, provided by a nonphysician~~
~~External Power: Upper Limb Prosthetics~~	
~~L6920~~	~~Wrist disarticulation, external power, self-suspended inner socket, removable forearm shell, Otto Bock or equal switch, cables, 2 batteries and 1 charger, switch control of terminal device~~
~~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~~
~~L6930~~	~~Below elbow, external power, self-suspended inner socket, removable forearm shell, Otto Bock or equal switch, cables, 2 batteries and one charger, switch 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~~
~~L6940~~	~~Elbow disarticulation, external power, molded inner socket, removable humeral shell, outside locking hinges, forearm, Otto Bock or equal switch, cables, 2 batteries and one charger, switch control of terminal device~~

CPT~~CDT/HCPCS~~ Code	Description
~~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~~
~~L6950~~	~~Above elbow, external power, molded inner socket, removable humeral shell, internal locking elbow, forearm, Otto Bock or equal switch, cables, 2 batteries and one charger, switch 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~~
~~L6960~~	~~Shoulder disarticulation, external power, molded inner socket, removable shoulder shell, shoulder bulkhead, humeral section, mechanical elbow, forearm, Otto Bock or equal switch, cables, 2 batteries and one charger, switch control of terminal device~~
~~**External Power: Upper Limb Prosthetics**~~	
~~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~~
~~L6970~~	~~Interscapular-thoracic, external power, molded inner socket, removable shoulder shell, shoulder bulkhead, humeral section, mechanical elbow, forearm, Otto Bock or equal switch, cables, 2 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, 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~~
~~L7040~~	~~Prehensile 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~~

CPT~~CDT/HCPCS~~ Code	Description
~~L7191~~	~~Electronic elbow, child, Variety Village or equal, myoelectronically controlled~~
~~L7259~~	~~Electronic wrist rotator, any type~~
~~**Eye Prosthesis**~~	
~~D5915~~	~~Orbital prosthesis~~
~~D5916~~	~~Ocular prosthesis~~
~~D5923~~	~~Ocular prosthesis, interim~~
~~D5928~~	~~Orbital prosthesis, replacement~~
~~L8042~~	~~Orbital prosthesis, provided by nonphysician~~
~~L8610~~	~~Ocular implant~~
~~V2623~~	~~Prosthetic eye, plastic, custom~~
~~V2624~~	~~Polishing/resurfacing of ocular prosthesis~~
~~V2625~~	~~Enlargement of ocular prosthesis~~
~~V2626~~	~~Reduction of ocular prosthesis~~
~~V2627~~	~~Scleral cover shell~~
~~V2628~~	~~Fabrication and fitting of ocular conformer~~
~~V2629~~	~~Prosthetic eye, other type~~
~~**Facial Prosthesis**~~	
~~D5911~~	~~Facial moulage (sectional)~~
~~D5912~~	~~Facial moulage (complete)~~
~~D5919~~	~~Facial prosthesis~~
~~D5929~~	~~Facial prosthesis, replacement~~
~~L8041~~	~~Midfacial prosthesis, provided by a nonphysician~~
~~**Facial Prosthesis**~~	
~~L8043~~	~~Upper facial prosthesis, provided by a nonphysician~~
~~L8044~~	~~Hemi-facial prosthesis, provided by a nonphysician~~
~~L8046~~	~~Partial facial prosthesis, provided by a nonphysician~~
~~L8048~~	~~Unspecified maxillofacial prosthesis, by report, provided by a nonphysician~~
~~L8049~~	~~Repair or modification of maxillofacial prosthesis, labor component, 15 minute increments, provided by a nonphysician~~
~~**Lower Limb Prosthetics**~~	
***K1014**~~K1022~~	Addition~~ to lower extremity prosthesis~~, endoskeletal~~,~~ knee~~-~~ **shin system, 4 bar linkage or multiaxial, fluid swing and stance phase control** ~~ disarticulation, above knee, hip disarticulation, positional rotation unit, any type~~
L5000	Partial foot, shoe insert with longitudinal arch, toe filler
L5010	Partial foot, molded socket, ankle height, with toe filler
L5020	Partial foot, molded socket, tibial tubercle height, with toe filler

CPT~~CDT~~/~~HCPCS~~ Code	Description
L5050	Ankle, **symes** ~~Symes~~, molded socket, sach~~SACH~~ foot
L5060	Ankle, **symes** ~~Symes~~, metal frame, molded leather socket, articulated ankle/foot
L5100	Below knee, molded socket, shin, **sach** ~~SACH~~ foot
L5105	Below knee, plastic socket, joints and thigh lacer, **sach** ~~SACH~~ foot
L5150	Knee disarticulation (or through knee), molded socket, external knee joints, shin, **sach** ~~SACH~~ foot
L5160	Knee disarticulation (or through knee), molded socket, bent knee configuration, external knee joints, shin, **sach** ~~SACH~~ foot
L5200	Above knee, molded socket, single axis constant friction knee, shin, **sach** ~~SACH~~ foot
L5210	Above knee, short prosthesis, no knee joint (**'stubbies'**~~stubbies~~), with foot blocks, no ankle joints, each
L5220	Above knee, short prosthesis, no knee joint (**'stubbies'**~~stubbies~~), with articulated ankle/foot, dynamically aligned, each
L5230	Above knee, for proximal femoral focal deficiency, constant friction knee, shin, **sach** ~~SACH~~ foot
L5250	Hip disarticulation, **canadian**~~Canadian~~ type; molded socket, hip joint, single axis constant friction knee, shin, **sach**~~SACH~~ foot
L5270	Hip disarticulation, tilt table type; molded socket, locking hip joint, single axis constant friction knee, shin, **sach** ~~SACH~~ foot
L5280	Hemipelvectomy, **canadian** ~~Canadian~~ type; molded socket, hip joint, single axis constant friction knee, shin, **sach** ~~SACH~~ foot
L5301	Below knee, molded socket, shin, **sach** ~~SACH~~ foot, endoskeletal system
L5312	Knee disarticulation (or through knee), molded socket, single axis knee, pylon, **sach** ~~SACH~~ foot, endoskeletal system
L5321	Above knee, molded socket, open end, **sach** ~~SACH~~ foot, endoskeletal system, single axis knee
L5331	Hip disarticulation, canadian~~Canadian~~ type, molded socket, endoskeletal system, hip joint, single axis knee, **sach** ~~SACH~~ foot
***L5341**	**Hemipelvectomy, canadian ~~Canadian~~ type, molded socket, endoskeletal system, hip joint, single axis knee, sach ~~SACH~~ foot**
***L5400**	**Immediate post surgical ~~postsurgical~~ or early fitting, application of initial rigid dressing, including fitting, alignment, suspension, and one cast change, below knee**
***L5410**	**Immediate post surgical ~~postsurgical~~ or early fitting, application of initial rigid dressing, including fitting, alignment and suspension, below knee, each additional cast change and realignment**
~~**Lower Limb Prosthetics**~~	
***L5420**	**Immediate post surgical ~~postsurgical~~ or early fitting, application of initial rigid dressing, including fitting, alignment and suspension and one cast change 'ak'~~AK~~ or knee disarticulation**

CPT~~CDT~~/HCPCS~~S~~ Code	Description
*L5430	Immediate post surgical ~~postsurgical~~ or early fitting, application of initial rigid dressing, incl.~~including~~ fitting, alignment and supension, 'ak' ~~suspension, AK~~ or knee disarticulation, each additional cast change and realignment
*L5450	Immediate post surgical ~~postsurgical~~ or early fitting, application of non-weight ~~nonweight~~ bearing rigid dressing, below knee
*L5460	Immediate post surgical ~~postsurgical~~ or early fitting, application of non-weight ~~nonweight~~ bearing rigid dressing, above knee
L5500	Initial, below knee 'ptb' ~~PTB~~ type socket, non-alignable ~~nonalignable~~ system, pylon, no cover, sach ~~SACH~~ foot, plaster socket, direct formed
L5505	Initial, above knee -~~,~~ knee disarticulation, ischial level socket, non-alignable ~~nonalignable~~ system, pylon, no cover, sach ~~SACH~~ foot, plaster socket, direct formed
L5510	Preparatory, below knee 'ptb' ~~PTB~~ type socket, non-alignable ~~nonalignable~~ system, pylon, no cover, sach ~~SACH~~ foot, plaster socket, molded to model
L5520	Preparatory, below knee 'ptb' ~~PTB~~ type socket, non-alignable ~~nonalignable~~ system, pylon, no cover, sach ~~SACH~~ foot, thermoplastic or equal, direct formed
L5530	Preparatory, below knee 'ptb' ~~PTB~~ type socket, non-alignable ~~nonalignable~~ system, pylon, no cover, sach ~~SACH~~ foot, thermoplastic or equal, molded to model
L5535	Preparatory, below knee 'ptb' ~~PTB~~ type socket, non-alignable ~~nonalignable~~ system, no cover, sach ~~SACH~~ foot, prefabricated, adjustable open end socket
L5540	Preparatory, below knee 'ptb' ~~PTB~~ type socket, non-alignable ~~nonalignable~~ system, pylon, no cover, sach ~~SACH~~ foot, laminated socket, molded to model
L5560	Preparatory, above knee-~~,~~ knee disarticulation, ischial level socket, non-alignable ~~nonalignable~~ system, pylon, no cover, sach ~~SACH~~ foot, plaster socket, molded to model
L5570	Preparatory, above knee - knee disarticulation, ischial level socket, non-alignable ~~nonalignable~~ system, pylon, no cover, sach ~~SACH~~ foot, thermoplastic or equal, direct formed
L5580	Preparatory, above knee -~~,~~ knee disarticulation~~,~~ ischial level socket, non-alignable ~~nonalignable~~ system, pylon, no cover, sach ~~SACH~~ foot, thermoplastic or equal, molded to model
L5585	Preparatory, above knee - knee disarticulation, ischial level socket, non-alignable ~~nonalignable~~ system, pylon, no cover, sach ~~SACH~~ foot, prefabricated adjustable open end socket
L5590	Preparatory, above knee -~~,~~ knee disarticulation~~,~~ ischial level socket, non-alignable ~~nonalignable~~ system, pylon~~,~~ no cover, sach ~~SACH~~ foot, laminated socket, molded to model
L5595	Preparatory, hip disarticulation-~~/~~hemipelvectomy, pylon, no cover, sach ~~SACH~~ foot, thermoplastic or equal, molded to patient model

CPT~~CDT/HCPCS~~ Code	Description
L5600	Preparatory, hip disarticulation~~/~~hemipelvectomy, pylon, no cover, **sach** ~~SACH~~ foot, laminated socket, molded to patient model
L5610	Addition to lower extremity, endoskeletal system, above knee, hydracadence system
L5611	Addition to lower extremity, endoskeletal system, above knee ~~/~~ knee disarticulation, 4 ~~-~~bar linkage, with friction swing phase control
L5613	Addition to lower extremity, endoskeletal system, above knee~~-/~~knee disarticulation, 4 ~~-~~bar linkage, with hydraulic swing phase control
L5614	Addition to lower extremity, exoskeletal system, above knee-knee disarticulation, 4 bar linkage, with pneumatic swing phase control
L5616	Addition to lower extremity, endoskeletal system, above knee, universal multiplex system, friction swing phase control
L5617	Addition to lower extremity, quick change self-aligning unit, above knee or below knee, each
L5618	Addition to lower extremity, test socket, **symes** ~~Symes~~
~~**Lower Limb Prosthetics**~~	
L5620	Addition to lower extremity, test socket, below knee
L5622	Addition to lower extremity, test socket, knee disarticulation
L5624	Addition to lower extremity, test socket, above knee
L5626	Addition to lower extremity, test socket, hip disarticulation
L5628	Addition to lower extremity, test socket, hemipelvectomy
L5629	Addition to lower extremity, below knee, acrylic socket
L5630	Addition to lower extremity, **symes** ~~Symes~~ type, expandable wall socket
L5631	Addition to lower extremity, above knee or knee disarticulation, acrylic socket
L5632	Addition to lower extremity, **symes** ~~Symes~~ type, **'ptb'** ~~PTB~~ brim design socket
L5634	Addition to lower extremity, **symes** ~~Symes~~ type, posterior opening (**canadian** ~~Canadian~~) socket
L5636	Addition to lower extremity, **symes** ~~Symes~~ type, medial opening socket
L5637	Addition to lower extremity, below knee, total contact
L5638	Addition to lower extremity, below knee, leather socket
L5639	Addition to lower extremity, below knee, wood socket
L5640	Addition to lower extremity, knee disarticulation, leather socket
L5642	Addition to lower extremity, above knee, leather socket
L5643	Addition to lower extremity, hip disarticulation, flexible inner socket, external frame
L5644	Addition to lower extremity, above knee, wood socket
L5645	Addition to lower extremity, below knee, flexible inner socket, external frame

CPT~~CDT/HCPCS~~ Code	Description
L5646	Addition to lower extremity, below knee, air, fluid, gel or equal, cushion socket
L5647	Addition to lower extremity, below knee~~,~~ suction socket
L5648	Addition to lower extremity, above knee, air, fluid, gel or equal, cushion socket
L5649	Addition to lower extremity, ischial containment/narrow **m-l**~~M-L~~ socket
L5650	Additions to lower extremity, total contact, above knee or knee disarticulation socket
L5651	Addition to lower extremity, above knee, flexible inner socket, external frame
L5652	Addition to lower extremity, suction suspension, above knee or knee disarticulation socket
L5653	Addition to lower extremity, knee disarticulation, expandable wall socket
L5654	Addition to lower extremity, socket insert, **symes, (kemblo, pelite, aliplast, plastazote** ~~Symes, (Kemblo, Pelite, Aliplast, Plastazote~~ or equal)
L5655	Addition to lower extremity, socket insert, below knee (**kemblo, pelite, aliplast, plastazote** ~~Kemblo, Pelite, Aliplast, Plastazote~~ or equal)
L5656	Addition to lower extremity, socket insert, knee disarticulation (**kemblo, pelite, aliplast, plastazote** ~~Kemblo, Pelite, Aliplast, Plastazote~~ or equal)
L5658	Addition to lower extremity, socket insert, above knee (**kemblo, pelite, aliplast, plastazote** ~~Kemblo, Pelite, Aliplast, Plastazote~~ or equal)
L5661	Addition to lower extremity, socket insert, **multi-durometer symes** ~~multidurometer-Symes~~
L5665	Addition to lower extremity, socket insert, **multi-durometer** ~~multidurometer~~, below knee
L5666	Addition to lower extremity, below knee, cuff suspension
L5668	Addition _to lower extremity, below knee, molded distal cushion
L5670	Addition to lower extremity, below knee, molded supracondylar suspension (**'pts'** ~~PTS~~ or similar)
L5671	Addition to lower extremity, below knee / above knee suspension locking mechanism (shuttle, lanyard~~,~~ or equal), excludes socket insert
L5672	Addition to lower extremity, below knee, removable medial brim suspension
~~**Lower Limb Prosthetics**~~	
L5673	Addition to lower extremity, below knee/above knee, custom fabricated from existing mold or prefabricated, socket insert, silicone gel, elastomeric or equal, for use with locking mechanism
L5676	Additions to lower extremity, below knee, knee joints, single axis, pair

CPT~~CDT/HCPCS~~ Code	Description
***L5677**	**Additions to lower extremity, below knee, knee joints, polycentric, pair**
L5678	Additions to lower extremity, below knee, joint covers, pair
L5679	Addition to lower extremity, below knee/above knee, custom fabricated from existing mold or prefabricated, socket insert, silicone gel, elastomeric or equal, not for use with locking mechanism
L5680	Addition to lower extremity, below knee, thigh lacer, nonmolded
L5681	Addition to lower extremity, below knee/above knee, custom fabricated socket insert for congenital or atypical traumatic amputee, silicone gel, elastomeric or equal, for use with or without locking mechanism, initial only (for other than initial, use code **15673** ~~L5673~~ or **15679** ~~L5679~~)
L5682	Addition to lower extremity, below knee, thigh lacer, gluteal/ischial, molded
L5683	Addition to lower extremity, below knee/above knee, custom fabricated socket insert for other than congenital or atypical traumatic amputee, silicone gel, elastomeric or equal, for use with or without locking mechanism, initial only (for other than initial, use code **15673** ~~L5673~~ or **15679** ~~L5679~~)
L5684	Addition to lower extremity, below knee, fork strap
L5685	Addition to lower extremity prosthesis, below knee, suspension/sealing sleeve, with or without valve, any material, each
L5686	Addition to lower extremity, below knee, back check (extension control)
L5688	Addition to lower extremity, below knee, waist belt, webbing
L5690	Addition to lower extremity, below knee, waist belt, padded and lined
L5692	Addition to lower extremity, above knee, pelvic control belt, light
L5694	Addition to lower extremity, above knee, pelvic control belt, padded and lined
L5695	Addition to lower extremity, above knee, pelvic control, sleeve suspension, neoprene or equal, each
L5696	Addition to lower extremity, above knee or knee disarticulation, pelvic joint
L5697	Addition to lower extremity, above knee or knee disarticulation, pelvic band
L5698	Addition to lower extremity, above knee or knee disarticulation, **silesian** ~~Silesian~~ bandage
L5699	All lower extremity prostheses, shoulder harness
L5700	Replacement, socket, below knee, molded to patient model
L5701	Replacement, socket, above knee/knee disarticulation, including attachment plate, molded to patient model
L5702	Replacement, socket, hip disarticulation, including hip joint, molded to patient model

CPT~~CDT~~/~~HCPCS~~ Code	Description
*L5703	**Ankle, symes ~~Symes~~, molded to patient model, socket without solid ankle cushion heel (sach ~~SACH~~) foot, replacement only**
L5704	Custom shaped protective cover, below knee
L5705	Custom shaped protective cover, above knee
L5706	Custom shaped protective cover, knee disarticulation
L5707	Custom shaped protective cover, hip disarticulation
L5710	Addition, exoskeletal knee-shin system, single axis, manual lock
L5711	Additions exoskeletal knee-shin system, single axis, manual lock, ultra-light material
L5712	Addition, exoskeletal knee-shin system, single axis, friction swing and stance phase control (safety knee)
L5714	Addition, exoskeletal knee-shin system, single axis, variable friction swing phase control
~~Lower Limb Prosthetics~~	
L5716	Addition, exoskeletal knee-shin system, polycentric, mechanical stance phase lock
L5718	Addition, exoskeletal knee-shin system, polycentric, friction swing and stance phase control
L5722	Addition, exoskeletal knee-shin system, single axis, pneumatic swing, friction stance phase control
L5724	Addition, exoskeletal knee-shin system, single axis, fluid swing phase control
L5726	Addition, exoskeletal knee-shin system, single axis, external joints~~,~~ fluid swing phase control
L5728	Addition, exoskeletal knee-shin system, single axis, fluid swing and stance phase control
L5780	Addition, exoskeletal knee-shin system, single axis, pneumatic/hydra pneumatic swing phase control
***L5781**	**Addition to lower limb prosthesis, vacuum pump, residual limb volume management and moisture evacuation system**
***L5782**	**Addition to lower limb prosthesis, vacuum pump, residual limb volume management and moisture evacuation system, heavy duty**
L5785	Addition, exoskeletal system, below knee, ultra-light material (titanium, carbon fiber or equal)
L5790	Addition, exoskeletal system, above knee, ultra-light material (titanium, carbon fiber or equal)
L5795	Addition, exoskeletal system, hip disarticulation, ultra-light material (titanium, carbon fiber or equal)
L5810	Addition, endoskeletal knee-shin system, single axis, manual lock
L5811	Addition, endoskeletal knee-shin system, single axis, manual lock, ultra-light material

CPT~~CDT/HCPCS~~ Code	Description
L5812	Addition, endoskeletal knee-shin system, single axis, friction swing and stance phase control (safety knee)
L5814	Addition, endoskeletal knee-shin system, polycentric, hydraulic swing phase control, mechanical stance phase lock
L5816	Addition, endoskeletal knee-shin system, polycentric, mechanical stance phase lock
L5818	Addition, endoskeletal knee-shin system, polycentric, friction swing, and stance phase control
L5822	Addition, endoskeletal knee-shin system, single axis, pneumatic swing, friction stance phase control
L5824	Addition, endoskeletal knee-shin system, single axis, fluid swing phase control
L5826	Addition, endoskeletal knee-shin system, single axis, hydraulic swing phase control, with miniature high activity frame
L5828	Addition, endoskeletal knee-shin system, single axis, fluid swing and stance phase control
L5830	Addition, endoskeletal knee-shin system, single axis, pneumatic/ swing phase control
L5840	Addition, endoskeletal knee/-shin system, 4-bar linkage or multiaxial, pneumatic swing phase control
L5845	Addition, endoskeletal, knee-shin system, stance flexion feature, adjustable
***L5848**	**Addition to endoskeletal knee-shin system, fluid stance extension, dampening feature, with or without adjustability**
L5850	Addition, endoskeletal system, above knee or hip disarticulation, knee extension assist
L5855	Addition, endoskeletal system, hip disarticulation, mechanical hip extension assist
***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**
L5859	Addition to lower extremity prosthesis, endoskeletal knee-shin system, powered and programmable flexion/extension assist control, includes any type motor(s)
L5910	Addition, endoskeletal system, below knee, alignable system
L5920	Addition, endoskeletal system, above knee or hip disarticulation, alignable system

CPT~~CDT/HCPCS~~ Code	Description
L5925	Addition, endoskeletal system, above knee, knee disarticulation or hip disarticulation, manual lock
L5930	Addition, endoskeletal system, high activity knee control frame
~~**Lower Limb Prosthetics**~~	
L5940	Addition, endoskeletal system, below knee, ultra-light material (titanium, carbon fiber or equal)
L5950	Addition, endoskeletal system, above knee, ultra-light material (titanium, carbon fiber or equal)
L5960	Addition, endoskeletal system, hip disarticulation, ultra-light material (titanium, carbon fiber or equal)
***L5961**	**Addition, endoskeletal system, polycentric hip joint, pneumatic or hydraulic control, rotation control, with or without flexion and/or extension control**
L5962	Addition, endoskeletal system, below knee, flexible protective outer surface covering system
L5964	Addition, endoskeletal system, above knee, flexible protective outer surface covering system
L5966	Addition, endoskeletal system, hip disarticulation, flexible protective outer surface covering system
***L5968**	**Addition to lower limb prosthesis, multiaxial ankle with swing phase active dorsiflexion feature**
L5969	Addition, endoskeletal ankle-foot or ankle system, power assist, includes any type motor(s)
L5970	All lower extremity prostheses, foot, external keel, **sach** ~~SACH~~ foot
***L5971**	**All lower extremity prosthesis, solid ankle cushion heel (sach ~~SACH~~) foot, replacement only**
L5972	All lower extremity prostheses, foot, flexible keel
L5973	Endoskeletal ankle foot system, microprocessor controlled feature, dorsiflexion and/or plantar flexion control, includes power source
L5974	All lower extremity prostheses, foot, single axis ankle/foot
L5975	All lower extremity **prosthesis** ~~prostheses~~, combination single axis ankle and flexible keel foot
L5976	All lower extremity prostheses, energy storing foot (**seattle carbon copy ii** ~~Seattle Carbon Copy II~~ or equal)
L5978	All lower extremity prostheses, foot, multiaxial ankle/foot
L5979	All lower extremity **prosthesis, multi-axial** ~~prostheses, multiaxial~~ ankle, dynamic response foot, one piece system
L5980	All lower extremity prostheses, flex_~~-~~foot system
L5981	All lower extremity prostheses, flex-walk system or equal
L5982	All exoskeletal lower extremity prostheses, axial rotation unit
L5984	All endoskeletal lower extremity **prosthesis** ~~prostheses~~, axial rotation unit, with or without adjustability

CPT~~CDT/HCPCS~~ Code	Description
L5985	All endoskeletal lower extremity prostheses, dynamic prosthetic pylon
L5986	All lower extremity prostheses, **multi-axial** ~~multiaxial~~ rotation unit (**'mcp'** ~~MCP~~ or equal)
L5987	All lower extremity **prosthesis** ~~prostheses~~, shank foot system with vertical loading pylon
L5988	Addition to lower limb **prosthesis** ~~prostheses~~, vertical shock reducing pylon feature
L5990	Addition to lower extremity prosthesis, user adjustable heel height
L5999	Lower extremity prosthesis, not otherwise specified
L7367 ~~Miscellaneous~~	**Lithium ion battery, rechargeable, replacement**
~~L7700~~	~~Gasket or seal, for use with prosthetic socket insert, any type, each (**Note:** L7700 is for either a lower limb, or an upper limb socket)~~
~~L8510~~	~~Voice amplifier~~
~~**Nose Prosthesis**~~	
~~D5913~~	~~Nasal prosthesis~~
~~D5922~~	~~Nasal septal prosthesis~~
L7368 ~~D5926~~	**Lithium ion battery charger** ~~Nasal prosthesis~~, replacement **only**
~~L8040~~	~~Nasal prosthesis, provided by a nonphysician~~
~~L8047~~	~~Nasal septal prosthesis, provided by a nonphysician~~
~~**Prosthetic Socks**~~	
***L7600	Prosthetic donning sleeve, any material, each
***L7700**	**Gasket or seal, for use with prosthetic socket insert, any type, each**
L8400	Prosthetic sheath, below knee, each
L8410	Prosthetic sheath, above knee, each
~~L8415~~	~~Prosthetic sheath, upper limb, each~~
L8417	Prosthetic sheath/sock, including a gel cushion layer, below knee or above knee, each
L8420	Prosthetic sock, multiple ply, below knee, each
L8430	Prosthetic sock, multiple ply, above knee, each
~~L8435~~	~~Prosthetic sock, multiple ply, upper limb, each~~
L8440	Prosthetic shrinker, below knee, each
L8460	Prosthetic shrinker, above knee, each
~~L8465~~	~~Prosthetic shrinker, upper limb, each~~
L8470	Prosthetic sock, single ply, fitting, below knee, each
L8480	Prosthetic sock, single ply, fitting, above knee, each

Codes labeled with an asterisk (*) are not on the Louisiana Medicaid Fee Schedule and therefore may not be covered by the state of Louisiana Medicaid Program.

~~L8485~~	~~Prosthetic sock, single ply, fitting, upper limb, each~~
~~L8499~~	~~Unlisted procedure for miscellaneous prosthetic services~~
~~L9900~~	~~Orthotic and prosthetic supply, accessory, and/or service component of another HCPCS L code~~
~~**Repair and Replacement**~~	
~~L7510~~	~~Repair of prosthetic device, repair or replace minor parts~~
~~L7520~~	~~Repair prosthetic device, labor component, per 15 minutes~~
~~**Upper Limb Prosthetics**~~	
~~L6000~~	~~Partial hand, thumb remaining~~
~~L6010~~	~~Partial hand, little and/or ring finger remaining~~
~~L6020~~	~~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)~~
~~L6050~~	~~Wrist disarticulation, molded socket, flexible elbow hinges, triceps pad~~
~~L6055~~	~~Wrist disarticulation, molded socket with expandable interface, flexible elbow hinges, triceps pad~~
~~L6100~~	~~Below elbow, molded socket, flexible elbow hinge, triceps pad~~
~~L6110~~	~~Below elbow, molded socket (Muenster or Northwestern suspension types)~~
~~L6120~~	~~Below elbow, molded double wall split socket, step-up hinges, half cuff~~
~~L6130~~	~~Below elbow, molded double wall split socket, stump activated locking hinge, half cuff~~
~~L6200~~	~~Elbow disarticulation, molded socket, outside locking hinge, forearm~~
~~L6205~~	~~Elbow disarticulation, molded socket with expandable interface, outside locking hinges, forearm~~
~~L6250~~	~~Above elbow, molded double wall socket, internal locking elbow, forearm~~
~~L6300~~	~~Shoulder disarticulation, molded socket, shoulder bulkhead, humeral section, internal locking elbow, forearm~~
~~L6310~~	~~Shoulder disarticulation, passive restoration (complete prosthesis)~~
~~L6320~~	~~Shoulder disarticulation, passive restoration (shoulder cap only)~~
~~L6350~~	~~Interscapular thoracic, molded socket, shoulder bulkhead, humeral section, internal locking elbow, forearm~~
~~**Upper Limb Prosthetics**~~	
~~L6360~~	~~Interscapular thoracic, passive restoration (complete prosthesis)~~
~~L6370~~	~~Interscapular thoracic, passive restoration (shoulder cap only)~~
~~L6380~~	~~Immediate postsurgical or early fitting, application of initial rigid dressing, including fitting alignment and suspension of components, and one cast change, wrist disarticulation or below elbow~~
~~L6382~~	~~Immediate postsurgical or early fitting, application of initial rigid dressing including fitting alignment and suspension of components, and one cast change, elbow disarticulation or above elbow~~

~~L6384~~	~~Immediate postsurgical or early fitting, application of initial rigid dressing including fitting alignment and suspension of components, and one cast change, shoulder disarticulation or interscapular thoracic~~
~~L6386~~	~~Immediate postsurgical or early fitting, each additional cast change and realignment~~
~~L6388~~	~~Immediate postsurgical or early fitting, application of rigid dressing only~~
~~L6400~~	~~Below elbow, molded socket, endoskeletal system, including soft prosthetic tissue shaping~~
~~L6450~~	~~Elbow disarticulation, molded socket, endoskeletal system, including soft prosthetic tissue shaping~~
~~L6500~~	~~Above elbow, molded socket, endoskeletal system, including soft prosthetic tissue shaping~~
~~L6550~~	~~Shoulder disarticulation, molded socket, endoskeletal system, including soft prosthetic tissue shaping~~
~~L6570~~	~~Interscapular thoracic, molded socket, endoskeletal system, including soft prosthetic tissue shaping~~
~~L6580~~	~~Preparatory, wrist disarticulation or below elbow, single wall plastic socket, friction wrist, flexible elbow hinges, figure of eight harness, humeral cuff, Bowden cable control, USMC or equal pylon, no cover, molded to patient model~~
~~L6582~~	~~Preparatory, wrist disarticulation or below elbow, single wall socket, friction wrist, flexible elbow hinges, figure of eight harness, humeral cuff, Bowden cable control, USMC or equal pylon, no cover, direct formed~~
~~L6584~~	~~Preparatory, elbow disarticulation or above elbow, single wall plastic socket, friction wrist, locking elbow, figure of eight harness, fair lead cable control, USMC or equal pylon, no cover, molded to patient model~~
~~L6586~~	~~Preparatory, elbow disarticulation or above elbow, single wall socket, friction wrist, locking elbow, figure of eight harness, fair lead cable control, USMC or equal pylon, no cover, direct formed~~
~~L6588~~	~~Preparatory, shoulder disarticulation or interscapular thoracic, single wall plastic socket, shoulder joint, locking elbow, friction wrist, chest strap, fair lead cable control, USMC or equal pylon, no cover, molded to patient model~~
~~L6590~~	~~Preparatory, shoulder disarticulation or interscapular thoracic, single wall socket, shoulder joint, locking elbow, friction wrist, chest strap, fair lead cable control, USMC or equal pylon, no cover, direct formed~~
~~L6600~~	~~Upper extremity additions, polycentric hinge, pair~~
~~L6605~~	~~Upper extremity additions, single pivot hinge, pair~~
~~L6610~~	~~Upper extremity additions, flexible metal hinge, pair~~
~~L6611~~	~~Addition to upper extremity prosthesis, external powered, additional switch, any type~~
~~L6615~~	~~Upper extremity addition, disconnect locking wrist unit~~
~~L6616~~	~~Upper extremity addition, additional disconnect insert for locking wrist unit, each~~

~~L6620~~	~~Upper extremity addition, flexion/extension wrist unit, with or without friction~~
~~L6621~~	~~Upper extremity prosthesis addition, flexion/extension wrist with or without friction, for use with external powered terminal device~~
~~L6623~~	~~Upper extremity addition, spring assisted rotational wrist unit with latch release~~
~~L6624~~	~~Upper extremity addition, flexion/extension and rotation wrist unit~~
~~L6625~~	~~Upper extremity addition, rotation wrist unit with cable lock~~
~~L6628~~	~~Upper extremity addition, quick disconnect hook adapter, Otto Bock or equal~~
~~**Upper Limb Prosthetics**~~	
~~L6629~~	~~Upper extremity addition, quick disconnect lamination collar with coupling piece, Otto Bock or equal~~
~~L6630~~	~~Upper extremity addition, stainless steel, any wrist~~
~~L6632~~	~~Upper extremity addition, latex suspension sleeve, each~~
~~L6635~~	~~Upper extremity addition, lift assist for elbow~~
~~L6637~~	~~Upper extremity addition, nudge control elbow lock~~
~~L6638~~	~~Upper extremity addition to prosthesis, electric locking feature, only for use with manually powered elbow~~
~~L6640~~	~~Upper extremity additions, shoulder abduction joint, pair~~
~~L6641~~	~~Upper extremity addition, excursion amplifier, pulley type~~
~~L6642~~	~~Upper extremity addition, excursion amplifier, lever type~~
~~L6645~~	~~Upper extremity addition, shoulder flexion-abduction joint, each~~
~~L6646~~	~~Upper extremity addition, shoulder joint, multipositional locking, flexion, adjustable abduction friction control, for use with body powered or external powered system~~
~~L6647~~	~~Upper extremity addition, shoulder lock mechanism, body powered actuator~~
~~L6648~~	~~Upper extremity addition, shoulder lock mechanism, external powered actuator~~
~~L6650~~	~~Upper extremity addition, shoulder universal joint, each~~
~~L6655~~	~~Upper extremity addition, standard control cable, extra~~
~~L6660~~	~~Upper extremity addition, heavy-duty control cable~~
~~L6665~~	~~Upper extremity addition, Teflon, or equal, cable lining~~
~~L6670~~	~~Upper extremity addition, hook to hand, cable adapter~~
~~L6672~~	~~Upper extremity addition, harness, chest or shoulder, saddle type~~
~~L6675~~	~~Upper extremity addition, harness, (e.g., figure of eight type), single cable design~~
~~L6676~~	~~Upper extremity addition, harness, (e.g., figure of eight type), dual cable design~~
~~L6677~~	~~Upper extremity addition, harness, triple control, simultaneous operation of terminal device and elbow~~

~~L6680~~	~~Upper extremity addition, test socket, wrist disarticulation or below elbow~~
~~L6682~~	~~Upper extremity addition, test socket, elbow disarticulation or above elbow~~
~~L6684~~	~~Upper extremity addition, test socket, shoulder disarticulation or interscapular thoracic~~
~~L6686~~	~~Upper extremity addition, suction socket~~
~~L6687~~	~~Upper extremity addition, frame type socket, below elbow or wrist disarticulation~~
~~L6688~~	~~Upper extremity addition, frame type socket, above elbow or elbow disarticulation~~
~~L6689~~	~~Upper extremity addition, frame type socket, shoulder disarticulation~~
~~L6690~~	~~Upper extremity addition, frame type socket, interscapular-thoracic~~
~~L6691~~	~~Upper extremity addition, removable insert, each~~
~~L6692~~	~~Upper extremity addition, silicone gel insert or equal, each~~
~~L6693~~	~~Upper extremity addition, locking elbow, forearm counterbalance~~
~~L6694~~	~~Addition to upper extremity prosthesis, below elbow/above elbow, custom fabricated from existing mold or prefabricated, socket insert, silicone gel, elastomeric or equal, for use with locking mechanism~~
~~L6695~~	~~Addition to upper extremity prosthesis, below elbow/above elbow, custom fabricated from existing mold or prefabricated, socket insert, silicone gel, elastomeric or equal, not for use with locking mechanism~~
~~L6696~~	~~Addition to upper extremity prosthesis, below elbow/above elbow, custom fabricated socket insert for congenital or atypical traumatic amputee, silicone gel, elastomeric or equal, for use with or without locking mechanism, initial only (for other than initial, use code L6694 or L6695)~~
~~**Upper Limb Prosthetics**~~	
~~L6697~~	~~Addition to upper extremity prosthesis, below elbow/above elbow, custom fabricated socket insert for other than congenital or atypical traumatic amputee, silicone gel, elastomeric or equal, for use with or without locking mechanism, initial only (for other than initial, use code L6694 or L6695)~~
~~L6698~~	~~Addition to upper extremity prosthesis, below elbow/above elbow, lock mechanism, excludes socket insert~~
~~L6703~~	~~Terminal device, passive hand/mitt, any material, any size~~
~~L6704~~	~~Terminal device, sport/recreational/work attachment, any material, any size~~
~~L6706~~	~~Terminal device, hook, mechanical, voluntary opening, any material, any size, lined or unlined~~
~~L6707~~	~~Terminal device, hook, mechanical, voluntary closing, any material, any size, lined or unlined~~
~~L6708~~	~~Terminal device, hand, mechanical, voluntary opening, any material, any size~~
~~L6709~~	~~Terminal device, hand, mechanical, voluntary closing, any material, any size~~

~~L6711~~	~~Terminal device, hook, mechanical, voluntary opening, any material, any size, lined or unlined, pediatric~~
~~L6712~~	~~Terminal device, hook, mechanical, voluntary closing, any material, any size, lined or unlined, pediatric~~
~~L6713~~	~~Terminal device, hand, mechanical, voluntary opening, any material, any size, pediatric~~
~~L6714~~	~~Terminal device, hand, mechanical, voluntary closing, any material, any size, pediatric~~
~~L6715~~	~~Terminal device, multiple articulating digit, includes motor(s), initial issue or replacement~~
~~L6721~~	~~Terminal device, hook or hand, heavy-duty, mechanical, voluntary opening, any material, any size, lined or unlined~~
~~L6722~~	~~Terminal device, hook or hand, heavy-duty, mechanical, voluntary closing, any material, any size, lined or unlined~~
~~L6805~~	~~Addition to terminal device, modifier wrist unit~~
~~L6810~~	~~Addition to terminal device, precision pinch device~~
~~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~~
~~L6883~~	~~Replacement socket, below elbow/wrist disarticulation, molded to patient model, for use with or without external power~~
~~L6884~~	~~Replacement socket, above elbow/elbow disarticulation, molded to patient model, for use with or without external power~~
~~L6885~~	~~Replacement socket, shoulder disarticulation/interscapular thoracic, molded to patient model, for use with or without external power~~
~~L6890~~	~~Addition to upper extremity prosthesis, glove for terminal device, any material, prefabricated, includes fitting and adjustment~~
~~L6895~~	~~Addition to upper extremity prosthesis, glove for terminal device, any material, custom fabricated~~
~~L6900~~	~~Hand restoration (casts, shading and measurements included), partial hand, with glove, thumb or one finger remaining~~
~~L6905~~	~~Hand restoration (casts, shading and measurements included), partial hand, with glove, multiple fingers remaining~~
~~L6910~~	~~Hand restoration (casts, shading and measurements included), partial hand, with glove, no fingers remaining~~
~~L6915~~	~~Hand restoration (shading and measurements included), replacement glove for above~~

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Description of Services

A prosthesis is an artificial device used to replace all or part a missing body part and is intended to restore normal function. Meier and Melton (2014) identify the most common levels of amputations for the lower limb are the transtibial (TT) (below knee, BK) and the transfemoral (TF) (above knee, AK).The prosthesis is a tool that helps the single-limb amputee gain functional independence. Ideally, lower limb amputees should be able to accomplish things such as ambulation with prosthesis on level and uneven surfaces, stairs, ramps, and curbs, independent with dressing and return to work with or without modifications.

Clinical Evidence

In a 2022 ECRI clinical assessment, the evidence is inconclusive for the OPRA (Osseointegrated Prostheses for the Rehabilitation of Amputees) Implant System. The OPRA is a bone anchored percutaneous limb prosthesis intended for skeletally mature patients with transfemoral amputations due to trauma or cancer. Evidence from two systematic reviews, two before and after studies and two case series is limited and of low quality. The studies report that while OPRA restores mobility and improves the patient's quality of life (QOL), serious complications, such as infection and implant loosening, have been frequently reported and thus the risk-benefit balance remains unclear.

Microprocessor Controlled Knee Prostheses

Although there is ample clinical literature to support the efficacy of microprocessor knees with community ambulators (Medicare functional classification level [MFCL] K3), there is insufficient evidence to support suitability of microprocessor knees for patients with lower functional classification levels.

Jayaraman et al. (2021) conducted a 13-month longitudinal crossover randomized clinical trial that included 10 individuals with unilateral transfemoral amputation due to vascular conditions designated as Medicare functional classification level (MFCL) K2 to evaluate gait performance and safety with a microprocessor-controlled knee (MPK). Participants were randomized to one of two groups, either an intervention with a MPK with a standardized 1M10 foot or with then non-microprocessor-controlled knee (NMPK) with a standardized 1M10 foot. Inclusion criteria were dysvascular or diabetic unilateral transfemoral amputation; at least 6 months or more post-prosthetic fitting; currently using an NMPK appropriate foot; and household or limited ambulator post-amputation (MFCL K1 or K2 level). Exclusion criteria were individuals with amputation secondary to trauma, cancer, or congenital causes; skin ulcers or lesions on the residual limb that may prevent fitting the prosthesis or from physical activity; and visual impairments or cognitive deficits that may impair ability to give informed consent or follow simple instructions during the study. Clinical outcomes and self-reported outcomes were collected at the end of 6-month interventions. Some limitations of this study include small sample size, the mean age of study participants is 63±9 years (which is relatively young when compared to the typical age range (70–75 years) of transfemoral amputation due to vascular complications in the United States), consideration of comorbidities, and the use of assistance devices in the home. The authors concluded that individuals with transfemoral amputation from dysvascular conditions at a MFCL K2 designation benefited from using an MPK with appropriate foot in gait speed, balance, self-reported mobility and fall safety.

A systematic review and meta-analysis were conducted by Hahn et al. (2021) to update a previous 2014 analysis of benefits in safety, performance-based, and patient-reported outcomes the use of microprocess-controlled prosthetic knees (MPKs) in limited community ambulators. The investigators searched Medline, Cochrane Library, CINAHL Complete, EMBASE, and Google Scholar and found 13 research projects (n = 704 participants classified as limited community ambulators). Two reviewers independently rated relevant publications for their methodological quality. According to the investigators, limitations of this analysis include the challenge of effective blinding to meet the formal criteria of high-quality research, some studies suffered high attrition that limit generalizability but may also reflect the challenge of natural progression of underlying conditions (e.g., vascular disease, diabetes) over longer observation periods, all studies reported some outcomes did not improve as expected, and the vast variety of parameters characterizing clinical outcomes. The investigators of this review are also noted as employed by a manufacture of MPKs. The authors concluded that the review suggests that limited community ambulators may experience reduced fall, fear of falling, and risk of falling, and improve mobility but indicate further research to study specific needs and characteristics of this population should be considered.

Deems-Dluhy et al. (2021) evaluated the potential of the microprocessor swing and stance-controlled knee-ankle-foot orthosis (MPO) on improving balance, functional mobility, and quality of life (QOL) in 18 individuals with lower-extremity impairments as compared to a stance-control-orthosis (SCO) and conventional knee-ankle-foot orthosis (KAFO) over 30 days of use. Assessments were done at baseline with the participants own device and again after training and use of each of the study devices. Performance-based outcome measures included walking endurance, gait speed, balance, functional sit to stand and outdoor ambulation; patient reported outcome measures included the Modified Falls Efficacy Scale (mFES) and the Orthotic and Prosthetic User's Survey (OPUS). Clinic visits included reports of any falls and adverse events. The results identified several performance-based measures improved significantly from baseline scores to posttesting scores with the participants that wore the C-Brace but not with the SCO. In addition, the ability to descend hills measured by hill assessment index showed the MPO group performed better and were able to walk significantly farther. The authors found improvements in both static and dynamic balance, gait speed, walking endurance, stair descent, and self-reported falls while using the MPO but not the SCO. Limitations included small sample size, inability to blind participants due to device type and short time frame of study.

Mileusnic et al. (2021) conducted a systematic review to evaluate the effect of the Genium knee on ambulation, mobility, activities of daily living (ADLs) and quality of life compared to standard MPKs. A search was conducted using PubMed, Cinahl and Cochrane Database of Systematic Reviews and returned 12 publications. Six publications contained randomized control cross-over design, five publications before-and-after design and one study used a cross-sectional design. Participant sample sizes ranged from 10 to 25 patients and follow up was anywhere from two days to three months. The overall quality of evidence was moderate to high except for one article. Data was gathered on how the Genium was assessed for walking, ramps and stairs. The authors found that while mobility and functional levels were both significantly improved and there were positive effects on the performance and safety of ADLs, it is unclear if the results can be generalized beyond community ambulators with a transfemoral amputation. Limitations included absence of blinding in all studies, short acclimation period for the patient with the prosthetic and small sample sizes.

Stevens and Wurdeman (2019) published clinical recommendations on prosthetic knee selection for unilateral amputees at the knee and transfemoral level. The following are the proposed recommendations:

1. **Fluid knee benefits and indications: knees with hydraulic or pneumatic swing resistance are indicated for active walkers, permitting increased walking comfort, speed, and symmetry.**
2. **Microprocessor knee benefits when compared with non-microprocessor knees:**
    a. **With respect to self-report indices and measures, microprocessor knees are indicated to reduce stumbles, falls, and associated frustrations as well as the cognitive demands of ambulation.**
    b. **With respect to self-report indices and measures, microprocessor knees are indicated to increase confidence while walking, self-reported mobility, satisfaction, well-being, and quality of life.**
    c. **With respect to physical performance indices and measures, microprocessor knees are indicated to increase self-selected walking speed, walking speed on uneven terrain, and metabolic efficiency during gait.**
3. **Microprocessor knee equivalence: given the comparable values observed with the use of microprocessor and non-microprocessor knees with regard to daily step counts, temporal and spatial gait symmetry, self-reported general health, and total costs of prosthetic rehabilitation, these parameters may not be primary indications in prosthetic knee joint selection.**
4. **Microprocessor knees for limited community ambulators: among limited community ambulators, microprocessor knees are indicated to enable increases in level ground walking speed and walking speed on uneven terrain while substantially reducing uncontrolled falls and increasing both measured and perceived balance**

Kaufman et al. (2018, included in the Hahn et al. (2021) systematic review above) conducted a prospective non-randomized cross-over clinical trial with repetition to evaluate if limited community ambulators would benefit from a microprocessor-controlled knee (MPK). The aim of the study was to compare functional efficacy, patient satisfaction, and safety of MPK vs NMPK. The study included 50 unilateral transfemoral amputees (TFA) with a mean age of 69 (range 55-93) and a MFCL of K2 (n=48) or K3 (n=2) that were tested with current non-microprocessor knee (NMPK), then tested with a MPK after 10 weeks of acclimation. Participants were then retested with their original mechanical NMPK after 4 weeks of re-acclimation. Participants were excluded if on dialysis, contained a history of acute or chronic residual limb skin breakdown or had a prosthetic socket adjustment within the previous 90 days. Participants self-assessed on nine validated scales for ambulation, appearance, frustration, perceived response, residual limb health, social burden, sounds, utility and well-being. Limitations of the study include safety data is directly linked to the ability to accurately monitor falls, increased burden on participants, use of recall that is limited by the extent of memory decay over time or under or over estimation, and intervention bias. A number of subjects (n=21) did not complete the final data capture. The authors concluded that this trial confirmed that MPK use to patients with a TFA and MFCL K2 results in improved function in the free-living environment, a reduction in fall and improved patient satisfaction.

The Agency for Healthcare Research and Quality (AHRQ) conducted an effectiveness review (2018) on Lower Limb Prostheses (LLP) (Balk et al., 2018). A literature search was conducted in PubMed®, both the Cochrane Central Trials Registry and Cochrane Database of Systematic Reviews, Embase®, and CINAHL®/PsycINFO® databases and identified 77 articles for review; 52 articles addressed key questions (KQ) 1-3, fifteen articles addressed KQ

4, one article addressed KQ 6, nine articles addressed KQ 7 and no articles were found for KQ 5.

1. **What assessment techniques used to measure functional ability of adults with major lower limb amputation have been evaluated in the published literature?**
2. **What prediction tools used to predict functional outcomes in adults with major lower limb amputation have been evaluated in the published literature?**
3. **What functional outcome measurement tools used to assess adults who use an LLP have been evaluated in the published literature?**
4. **In adults who use a lower limb prosthesis, how do ambulatory, functional, and patient-centered outcomes with different prosthesis components vary based on study participant characteristics?**
5. **How do study participants' pre prescription expectations of ambulation align with their functional outcomes?**
6. **What is the level of patient satisfaction with the process of accessing an LLP?**
7. **At 6 months, 1 year, and 5 years after receipt of an LLP, (accounting for intervening mortality, subsequent surgeries, or injuries) what percentage of individuals maintain ambulation, continue to use their prosthesis as intended, have abandoned their prosthesis or have encountered major problems?**

The following key findings were found:

- **Since many specific measures can be used for at all stages of evaluation of function for amputees, it is difficult to effectively make the distinction between assessment techniques, prediction tools, and outcome measures.**
- **Among the 50 instruments found to assess the psychometric properties, 41 had evidence of test validity, 35 had evidence of reliability, and 28 had evidence of both test validity and reliability.**
- **14 studies were found that compared LLP components along with provided data to compare differences in effect among different subgroups, however, most studies were small, underpowered, nonrandomized, reported only participant-level data, and did not evaluate heterogeneity of treatment effect. In addition, most of these studies evaluated knee components and most included younger men at K2 or K3 level, with unilateral transfemoral amputations with traumatic etiologies; only one study addressed a mean age greater than 65 years.**
- **No evidence was found that addressed how study participants' pre prescription expectations of ambulation aligned with their functional outcomes.**
- **As far as long-term followup, eight studies with at least 100 participants were found that addressed follow-up of at least 6 months after prescribed LLP, but only one of these studies was conducted in the United States and most (including the U.S. study) were published more than 10 years ago. There is insufficient or low evidence:**
  - **regarding failure to maintain bipedal ambulation**
  - **regarding use of prostheses only for transfers**
  - **regarding reasons why LLP amputees have poor outcomes in terms of their prostheses use**
  - **regarding rationale of amputees and why they have abandoned use of their prostheses at 1 year**

Limitations of this review included that most studies were observational, evaluated only a limited set of patient characteristics lacking heterogeneity, and most long-term studies were conducted outside the U.S. which addressed a different healthcare system. Future research should include robust studies including amputation level and etiology,

baseline K level or equivalent, living situation, and other participant functional status.

Kannenberg et al. (2014, included in Hahn et. al. (2021) systematic review above) conducted a systematic review on behalf of the manufacturer to evaluate if there is support that limited community ambulators (Medicare Functional Classification Level [MFCL]-2) may benefit from using a microprocessor-controlled prosthetic knee (MPK) in safety, performance-based function and mobility, and perceived function and satisfaction. The investigators searched the Medline, EMBASE, PsychInfo, Cochrane Library, CINAHL, DARE, Cirrie, OTseeker, PEDro, and RECAL Legacy for terms related to MPKs and individuals with a unilateral transfemoral amputation (TFA) and MFCL-2 mobility grade. Two reviewers independently screened studies, extracted data, and assessed for relevance. Of 986 articles articles screened, 3 studies were eligible for final inclusion for safety outcomes (n=27 with MFCL-2 mobility grade); 6 studies for performance-based function and mobility outcomes (n=57 with MFCL-2 mobility grade); 5 articles on perceived function and satisfaction (n=57 with MFCL-2 mobility grade). The authors concluded that the results of this systematic review of clinical trials of individuals with a unilateral TFA on interventions with MPKs suggest MPK use may significantly reduce uncontrolled falls by up to 80% and significating improved fall risk. Performance-based outcome measures suggest individuals with MFCL-2 mobility grade may be able to walk about 14% - 25% faster on level ground, be around 20% quicker on uneven surfaces and descend a slop almost 30% faster when using an MPK. Trial fitting may be used to determine whether or not individuals with TFA and MFCL-2 mobility grade benefit from MPK use is also suggested by this systematic review. According to the authors, limitations of this systematic review was that the results of the studies were derived with low to moderate methodological quality in a limited number of patients, trial fittings with different types of MPKs and that the criteria for appraising success or failure of the trial fitting have been suggested. The authors indicate that the current general and ambiguous definitions of the MFCLs are a challenge and that an evidence-based and unambiguous quantifiable functional classification would help better define patient groups for clinical research.

Theeven et al. (2011) conducted a randomized cross-over trial on 41 participants to assess the effects of using a microprocessor-controlled prosthetic knee joint on the functional performance of ADLs in persons with a unilateral above-knee or knee disarticulation limb loss above knee leg amputation, classified as Medicare Functional Classification Level-2 (MFCL-2). The patients were tested in 3 different prosthetic knee joint conditions: 1) with their current mechanically controlled knee joint or manual locking knee, 2) with a knee joint featuring a microprocessor-controlled stance and swing phase (MPK-A), and 3) with a knee joint featuring a microprocessor-controlled stance phase (MPK-B). Baseline data was collected for the mechanically controlled knee joint condition and then performance using both MPK devices was compared to the use of the patient's mechanically controlled knee. After 13 participants dropped out, MPKs were randomly assigned to the remaining 28 participants by a blinded assessor. The test circuit utilized consisted of 11 circuit stations, where the participants were tested on 17 simulated daily activities. For each activity the performance time was recorded, and with the visual analogue scale (VAS), participants rated the perceived level of difficulty for each circuit station; 0 was deemed very easy to 100 which was considered very difficult. At the end of the study the participants were asked which type of knee joint they preferred in daily life. The authors found some participants preferred and benefited from the MPK-A, some participants preferred and benefited from the MPK-B and one patient preferred their own mechanically controlled prosthesis. These results illustrate a singular prosthesis may not be the best choice for an entire group of

amputees; utilization of tests such as the ADAPT help to personalize the choice for the patient since each individual responds differently to a specific prosthesis.

Powered Microprocessor Prosthetic Ankles

There is insufficient evidence in the clinical literature demonstrating support for the use of powered microprocessor prosthetic ankles (MPAs) for transtibial amputations.

An evolving evidence review from Hayes (2022) focused specifically on the evidence to support the use of powered MPAs for transtibial amputations. There were no systematic reviews identified and a few poor-quality studies with variable outcomes. There were no professional guidelines identified.

Thomas-Pohla et al. (2021) investigated the relevance of microprocessor prosthetic ankles (MPAs) on six participants with transtibial amputation that currently wear an energy storing and returning (ESR) foot; the ability to stand on both level and inclined surfaces was evaluated. The study evaluated three MPAs: ElanVR Endolite (MPA1), MeridiumVR Ottobock (MPA2), ProprioFootVR Ossur (MPA3). All participants completed the simplified Activities-Specific Balance Confidence scale (ABC) questionnaire and underwent balance and mobility tests (the Berg Balance (BBS) scale and the 2-min walk test (2MWT)). Instrumental analysis was completed by furnishing the subjects in reflective markers and performance of several walking tasks; lower limb angular position and moment, Centre of Pressure (CoP) position, Ground Reaction Forces (GRF) and functional scores were collected stationary, on level ground and at 12% inclined slope. The authors concluded that increased ankle mobility is associated with better posture and slope balance and that the benefits of wearing MPAs had a direct relation to their design. Limitations included small sample size and lack of comparison group.

Kim et al. (2021) Twelve individuals with unilateral transtibial amputations (TTA) participated in a randomized clinical trial comparing unpowered prosthesis against the BiOM powered prosthesis. 7 people were randomly assigned to the powered prosthesis group and the other 5 were part of the unpowered prosthesis group; 10 participants completed the full study. Inclusion criteria for the participants consisted of patients aged 21years or older and had a unilateral TTA with prosthetic use for at least six months. The authors collected data on metabolic costs, walking speeds in-lab and in daily life, step count, step count away from home, perceived mobility, and preference between powered and unpowered prostheses. Participants completed the Prosthesis Evaluation Questionnaire (PEQ) which captured their mobility experience and quality of life. The authors concluded there was no significance between the two groups; wearing the powered prosthesis did not significantly decrease metabolic costs, increase physical activity or walking speed, or increase the individual's perceived mobility. Yet participants with the powered prosthesis reported they felt they could walk faster and with more ease but did complain about the battery life and weight of the prosthesis. Limitations included small sample size, lab environment assessments which contributed to the absence of real-world situations, and inaccurate data for the power operated device due to dead battery. Future studies with larger cohorts are warranted.

Kaluf et al. (2020) examined the differences in patient reported balance, mobility, socket comfort, and preference between a fixed-ankle energy-storing-and-returning (ESAR) foot and an MPA. 23 participants at a K3 level with unilateral transtibial amputation (UTA) were randomly assigned into two groups. Group AB received the MPA to use during the first 4-week period and Group BA received the ESAR foot; both groups then switched. A

certified prosthetist performed all the fitting and alignment of each participant's prosthetic. At each visit, participants filled out patient reported outcome measures (PROM) which included the Activities Specific Balance Confidence Scale (ABC), Prosthesis Evaluation Questionnaire-Mobility Subscale (PEQ-MS), and Prosthetic Limb User Survey of Mobility (PLUS-M), Socket Comfort Score (SCS). At the end of study, each subject was interviewed by the research prosthetist and asked what they liked and disliked about both devices and which would be their choice for their daily prosthetic. The authors found the MPA showed significantly better patient reported outcomes when it came to walking and standing on sloped surfaces. Limitations included small sample size, male gender participants only and participants with K3 level functioning or higher. Future studies should examine type of ankle-foot system and type of socket suspension, physical therapy training, comparison groups along with including patients with lower classification levels.

Struchkov and Buckley (2016) studied nine unilateral trans-tibial amputees to determine whether use of a microprocessor-controlled passive-articulating (MPC) hydraulic ankle-foot device improved the gait biomechanics when compared to conventional ankle-foot mechanisms. Out of the nine participants, which were all classified as K3 users, 4 of them used an Elan, 4 an Echelon VT and one a Re-flex Rotate; all were familiarized with using an articulating ankle-foot device. The ramp used was custom made with a 5-degree incline and 2.8 m long/1 m wide walking surface. The participants completed trials at two speeds walking down the ramp with both active and inactive MPC and the comparable elastic foot device. Residual limb kinematics, joint moments/powers and prosthetic foot power absorption/return were compared across all ankle types using analysis of variance (ANOVA). The authors found that use of a MPC hydraulic foot reduced the biomechanical compensations used to walk down slopes. Limitations included small sample size, lack of comparison group, and limited education and use for the non-hydraulic foot may have skewed certain values/results.

Clinical Practice Guidelines

Department of Veterans Affairs(VA)/Department of Defense (DoD)

In a 2017 Clinical Practice Guideline for Rehabilitation of Individuals with Lower Limb Amputation, the following is recommended:

- Assessment of behavioral health and psychosocial functioning at every phase of amputation management and rehabilitation. (Weak recommendation)
- Institute rehabilitation training interventions, using both open and closed chain exercises and progressive resistance to improve gait, mobility, strength, cardiovascular fitness and activities of daily living performance in order to maximize function. (Strong recommendation)
- Microprocessor knee units over non-microprocessor knee units for ambulation to reduce risk of falls and maximize patient satisfaction. There is insufficient evidence to recommend for or against any particular socket design, prosthetic foot categories, and suspensions and interfaces. (Weak recommendation)
- Use of valid, reliable, and responsive functional outcome measures, including, but not limited to, the Comprehensive High-level Activity Mobility Predictor, Amputee Mobility Predictor, 10-meter walk test, and 6-minute walk test. (Strong recommendation)

U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

Prosthetic devices and components are classified by the FDA as Class I medical devices. Class I devices have the least amount of regulatory control; manufacturers of these devices are exempt from the premarket notification procedures and are not required to provide safety and effectiveness data prior to marketing. Examples of these devices include "ankle, foot, hip, knee, and socket components; mechanical or powered hand, hook, wrist unit, elbow joint, and shoulder joint components; and cable and prosthesis suction valves." Additional information is available at: https://www.fda.gov/medical-devices (Accessed October 31, 2022).

The OPRA TM Implant System is an Osseoanchored Prostheses for the Rehabilitation of Amputees (OPRA) device and composed of parts that allow a prosthesis to attach directly to the femur (thigh bone). The device was granted FDA premarket approval on December 18, 2020. Additional information is available at: https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpma/pma.cfm?id=P190009 (Accessed October 31, 2022).

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Policy History/Revision Information

Date	Summary of Changes
TBD	**Title Change/Template Update** • Relocated and reformatted content previously included in the Coverage Determination Guideline titled *Prosthetic Devices, Wigs, Specialized, Microprocessor or Myoelectric Limbs (for Louisiana Only)*

- Changed policy type classification from "Coverage Determination Guideline" to "Medical Policy"

Coverage Rationale

- Revised language to indicate:
- A lower extremity prosthetic for amputations is proven and medically necessary in certain circumstances; for medical necessity clinical coverage criteria, refer to the InterQual® CP: Durable Medical Equipment Prosthetics, Lower Extremity
- An endoskeletal knee-shin system with microprocessor control feature (swing/stance phase) is unproven and not medically necessary due to insufficient evidence of efficacy for the following:
- Amputee with functional classification status of K1 or K2, and
- Transfemoral (above knee) amputation (includes knee disarticulation), or
- Hip disarticulation or hemipelvectomy
- A combined microprocessor-controlled ankle foot system with power assist is unproven and not medically necessary due to insufficient evidence of efficacy for the following:
- Transfemoral (above knee) amputation (includes knee disarticulation)
- Transtibial (below knee) amputation
- Hip disarticulation or hemipelvectomy

Definitions

- Added definition of:
- Activities of Daily Living (ADLs)
- Instrumental Activities of Daily Living (IADLs)
- CMS Modifiers/Medicare Functional Classification Level (MFCL)
- Modifier
- Prosthesis
- Removed definition of:
- Lower Limb Rehabilitation Classification Levels
- Prosthetic Device
- Updated definition of:
- Medically Necessary
- Myoelectric Prosthetic
- Prosthetist

Applicable Codes

- Added HCPCS codes K1014, L5781, L5782, L7367, and L7368
- Removed HCPCS codes K1022, L7510, L7520, L8499, and L9900
- **Added notation to indicate HCPCS codes K1014, L5341, L5400, L5410, L5420, L5430, L5450, L5460, L5677, L5703, L5781, L5782, L5848, L5856, L5857, L5858, L5961, L5968, L5971, L7600 and L7700 are not on the State of Louisiana Fee Schedule and therefore may not be covered by the State of Louisiana Medicaid Program**

Supporting Information

- Added Description of Services, Clinical Evidence, and FDA sections
- Updated *References* section to reflect the most current information

	• Archived previous policy version CS104LA.L

Instructions for Use

This **Medical Policy** ~~Coverage Determination Guideline~~ provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the federal, state or contractual requirements for benefit plan coverage must be referenced as the terms of the federal, state or contractual requirements for benefit plan coverage may differ from the standard benefit plan. In the event of a conflict, the federal, state or contractual requirements for benefit plan coverage govern. Before using this **policy** ~~guideline~~, please check the federal, state or contractual requirements for benefit plan coverage. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Medical Policy~~Coverage Determination Guideline~~ is provided for informational purposes. It does not constitute medical advice.

UnitedHealthcare may also use tools developed by third parties, such as the InterQual® criteria, to assist us in administering health benefits. The UnitedHealthcare Medical Policies~~Coverage Determination 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.