

Upper Extremity Prostheses

DME.MU.207.A

v2.0.2026

Health Equity Consideration

Health equity is the highest level of health for all individuals; health inequity is the avoidable difference in health status or distribution of health resources due to the social conditions in which individuals are born, grow, live, work, and age. Social determinants of health are the conditions in the environment that affect a wide range of health, functioning, and quality of life outcomes and risks. Examples include the following: safe housing, transportation, and neighborhoods; racism, discrimination, and violence; education, job opportunities, and income; access to nutritious foods and physical activity opportunities; access to clean air and water; and language and literacy skills.

Introduction

This guideline addresses upper extremity prostheses.

Criteria

An upper extremity prosthesis is considered medically necessary for individuals with traumatic or congenital absence of the upper limb when **both** of the following criteria have been met:

- The upper extremity prosthesis will assist the individual in regaining or maintaining function to perform daily tasks.
- The individual has the cognitive function to utilize an upper extremity prosthesis.

Myoelectric Prosthetic Device

An upper limb myoelectric prosthetic device is considered medically necessary for an individual with an amputation or congenital absence affecting part of the upper extremity (such as the hand, forearm, or elbow) when **all** of the following criteria have been met:

- The above criteria for an upper extremity prosthesis have been met.
- The individual is able to produce sufficient microvolts with muscle activation to operate the device.
- Standard body-powered prosthetic devices are documented by the treating provider as insufficient to meet the needs of the individual in performing activities of daily living.

Not Medically Necessary

Prosthetic additions, components, or associated devices are considered not medically necessary when the associated primary prosthesis is considered not medically necessary.

- The following prosthetic devices are considered not medically necessary, as they are not medical in nature and/or are considered convenience items:
 - Additions/components that are not required for the effective use of the device
 - Prosthetic devices or additions/components used for participation in recreational activities (e.g., sporting activities, such as skiing or swimming)
 - Back-up/duplicate prosthetic devices
 - Repair or replacement of a prosthesis for appearance, comfort, convenience, or individual misuse or neglect
 - Water prosthesis (designed to be used for showering, swimming, etc.)

An externally powered myoelectronic control module with additional emg inputs and pattern-recognition decoding intent movement is considered experimental, investigational, or unproven (EIU).

Replacement and Repair

Replacement of an upper limb prosthesis, accessories, and/or parts is considered medically necessary for **any** of the following:

- A change in the medical condition of the individual resulting in poor fit or function of the device or components of the device
- Irreparable wear of the device or a part of the device
- Loss of the device or components of the device

Repairs to a prosthesis are considered medically necessary when anatomical change or irreparable wear of the device renders the device or component non-functional and the repairs are necessary to make the prosthesis functional.

Evidence Discussion

A systematic review by Segura et al. (2024) analyzed 49 sources, including patents and commercial devices, to evaluate upper limb prostheses across different amputation levels (transradial, transhumeral, transcarpal, and transmetacarpal). The review highlighted significant variability in design features such as degrees of freedom, grip patterns, and input control mechanisms, which are closely tied to the level of amputation. Advances in materials and reductions in prosthesis weight have improved usability, while technology readiness levels indicate that many innovations remain in early development stages. Key challenges include achieving intuitive control, optimizing

durability, and standardizing performance metrics. The review concludes that while technological progress is evident, clinical adoption requires further evidence on functional outcomes and long-term user satisfaction.

A 2023 study by Patel et. al compared advanced multi-grip myoelectric hands to simpler prosthetic devices, focusing on functional performance and user experience. Results showed that while multi-grip hands provide more grip options, their superiority in real-world tasks was not consistently demonstrated across standardized assessments. Users reported mixed perceptions; some appreciated the versatility, while others found the devices more complex and prone to maintenance issues. The authors emphasized the need for goal-oriented outcome measures and long-term studies to determine whether these advanced devices deliver meaningful benefits beyond laboratory settings.

In a 2024 cross-sectional study, Resnik et al. analyzed survey data from 402 individuals with upper limb amputation, with a mean age of 61.7 years and a predominance of veterans at 77.1%. The authors examined the relationship between prosthesis usability and extent of device adoption using structural equation modeling. The results demonstrated a statistically significant positive association between Prosthesis Usability Experience and Extent of Prosthesis Adoption, indicating that individuals who reported higher usability were more likely to incorporate their prosthesis into daily activities. Additional findings showed that adoption varied by clinical characteristics, with lower adoption observed among individuals with transhumeral or shoulder-level amputation and higher adoption among those with bilateral limb loss, compared to unilateral transradial amputation. The analysis also found that use of myoelectric multi degree of freedom prostheses was associated with lower adoption compared to body powered devices, and that prosthesis type modified the relationship between usability and adoption. The authors concluded that improving usability was a key modifiable factor for increasing real world prosthesis use and that targeted interventions could enhance adoption. Study limitations included reliance on self-reported survey data, which may have introduced response bias, the cross-sectional design that precluded determination of causality, and a sample that was heavily weighted toward older male veterans, which may have limited generalizability to broader populations.

An integrated clinical and technological review by Fajardo et al. (2021) evaluated the performance of existing upper limb prostheses using standardized assessments and real-world task analysis. Despite improvements in design, rejection rates remain high due to limited functionality, complex control systems, and user discomfort. Findings indicate that body-powered devices often provide greater reliability and ease of use in daily activities, while rigid commercial hands excel in dexterous grasping tasks under controlled conditions. Critical determinants of success include wrist articulation and intuitive control strategies. The authors conclude that future development should prioritize multi-degree-of-freedom control, adaptive solutions, and sensory feedback integration to enhance usability and reduce abandonment.

Codes Addressed in This Guideline

The inclusion of any code in this table does not imply that the code is under management or requires prior authorization. Refer to the applicable health plan for management details. Prior authorization of a code listed in this table is not a guarantee of payment. The Certificate of Coverage or Evidence of Coverage policy outlines the terms and conditions of the member's health insurance policy.Paragraph

HCPSC Code	Description
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)
L6028	Partial hand, finger, and thumb prosthesis without prosthetic digit(s)/ thumb, amputation at metacarpal level, including flexible or non-flexible interface, molded to patient model, including palm, for use without external power and/or passive prosthetic digit/thumb, not including inserts described by L6692
L6029	Upper extremity addition, test socket/interface, partial hand including fingers
L6030	Upper extremity addition, external frame, partial hand including fingers
L6031	Replacement socket/interface, partial hand including fingers, molded to patient model, for use with or without external power
L6032	Addition to upper extremity prosthesis, partial hand including fingers, ultralight material (titanium, carbon fiber or equal)
L6033	Addition to upper extremity prosthesis, partial hand including fingers, acrylic material

HCP Code	Description
L6034	Partial hand, finger, and thumb prosthesis without prosthetic digit(s)/thumb, amputation at distal to metacarpal joint, including flexible or non-flexible interface, molded to patient model, for use without external power and/or passive prosthetic digit/thumb, not including inserts described by L6692
L6035	Single prosthetic digit, mechanical, can include metacarpophalangeal (mcp), proximal interphalangeal (pip), and/or distal interphalangeal (dip) joint(s), with or without locking mechanism, can include flexion or extension assist, any material, attachment, initial issue or replacement
L6036	Prosthetic thumb, mechanical, can include metacarpophalangeal (mcp), interphalangeal (ip) joint(s), with or without locking mechanism, can include flexion or extension assist, any material, attachment, initial issue or replacement
L6037	Immediate post-surgical or early fitting, application of initial rigid dressing, including fitting alignment and suspension of components, and one cast change, partial hand including fingers
L6038	Addition to single prosthetic digit or thumb, mechanical, attachment, multi-axial and/or internal/external rotation/abduction/adduction mechanism, with or without locking feature, any material
L6039	Passive prosthetic digit or thumb prosthesis not including hand restoration partial hand, full or partial, custom made, any material, initial or replacement, per single passive prosthetic digit or thumb
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

HCP Code	Description
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
L6360	Interscapular thoracic, passive restoration (complete prosthesis)
L6370	Interscapular thoracic, passive restoration (shoulder cap only)
L6380	Immediate post surgical 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 post surgical 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 post surgical 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 post surgical or early fitting, each additional cast change and realignment
L6388	Immediate post surgical 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

HCPSC Code	Description
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

HCP Code	Description
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
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

HCPSC Code	Description
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, with or without locking mechanism, 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

HCPSC Code	Description
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)
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, lock mechanism, excludes socket insert
L6700	Upper extremity addition, external powered feature, myoelectronic control module, additional emg inputs, pattern-recognition decoding intent movement
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

HCP Code	Description
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

HCPSC Code	Description
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
L6920	Wrist disarticulation, external power, self-suspended inner socket, removable forearm shell, otto bock or equal, switch, cables, two batteries and one charger, switch control of terminal device
L6925	Wrist disarticulation, external power, self-suspended inner socket, removable forearm shell, otto bock or equal electrodes, cables, two batteries and one charger, myoelectronic control of terminal device
L6930	Below elbow, external power, self-suspended inner socket, removable forearm shell, otto bock or equal switch, cables, two batteries and one charger, switch control of terminal device
L6935	Below elbow, external power, self-suspended inner socket, removable forearm shell, otto bock or equal electrodes, cables, two batteries and one charger, myoelectronic control of terminal device
L6940	Elbow disarticulation, external power, molded inner socket, removable humeral shell, outside locking hinges, forearm, otto bock or equal switch, cables, two batteries and one charger, switch control of terminal device
L6945	Elbow disarticulation, external power, molded inner socket, removable humeral shell, outside locking hinges, forearm, otto bock or equal electrodes, cables, two batteries and one charger, myoelectronic control of terminal device
L6950	Above elbow, external power, molded inner socket, removable humeral shell, internal locking elbow, forearm, otto bock or equal switch, cables, two batteries and one charger, switch control of terminal device
L6955	Above elbow, external power, molded inner socket, removable humeral shell, internal locking elbow, forearm, otto bock or equal electrodes, cables, two batteries and one charger, myoelectronic control of terminal device

HCPSC Code	Description
L6960	Shoulder disarticulation, external power, molded inner socket, removable shoulder shell, shoulder bulkhead, humeral section, mechanical elbow, forearm, otto bock or equal switch, cables, two batteries and one charger, switch control of terminal device
L6965	Shoulder disarticulation, external power, molded inner socket, removable shoulder shell, shoulder bulkhead, humeral section, mechanical elbow, forearm, otto bock or equal electrodes, cables, two batteries and one charger, myoelectronic control of terminal device
L6970	Interscapular-thoracic, external power, molded inner socket, removable shoulder shell, shoulder bulkhead, humeral section, mechanical elbow, forearm, otto bock or equal switch, cables, two batteries and one charger, switch control of terminal device
L6975	Interscapular-thoracic, external power, molded inner socket, removable shoulder shell, shoulder bulkhead, humeral section, mechanical elbow, forearm, otto bock or equal electrodes, cables, two batteries and one charger, myoelectronic control of terminal device
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
L7406	Addition to upper extremity prosthesis, user adjustable, mechanical, residual limb volume management system (with or without lamination kit)
L7499	Upper extremity prosthesis, not otherwise specified

HCP Code	Description
L7510	Repair of prosthetic device, repair or replace minor parts
L7520	Repair prosthetic device, labor component, per 15 minutes
L7600	Prosthetic donning sleeve, any material, each

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