Medical Policy

Subject:	Partial-Hand Myoelectric Prosthesis		
Document #:	OR-PR.00004	**Publish Date:**	04/07/2021
Status:	Reviewed	**Last Review Date:**	02/11/2021

Description/Scope

This document addresses the use of myoelectric partial-hand prosthetic devices. This type of prosthesis is differentiated from standard (passive and body-powered) upper extremity prostheses not just by the fact that it is a myoelectric device, but by the fact that it is designed to replace one or more fingers of the hand in people with partial-hand (transmetacarpal level or higher) amputations.

Note: For further information on prosthetic limb devices, please see:

- CG-OR-PR-05 Myoelectric Upper Extremity Prosthetic Devices
- OR-PR.00003 Microprocessor Controlled Lower Limb Prosthesis

Position Statement

Investigational and Not Medically Necessary:

The use of a partial-hand myoelectric prosthesis is considered **investigational and not medically necessary** under all circumstances.

Rationale

Although the partial-hand myoelectric prosthesis has been widely reported in the lay press since its market entry in 2009, at this time no peer-reviewed publications were found which evaluated the utility (improved function and health-related quality of life) of individual digit control using this device. In addition, authoritative organizations have yet to release any official documents addressing this device. At present, there is insufficient evidence in the published medical literature to evaluate the utility, durability, comfort, wearing habits and safety of the partial-hand myoelectric prosthesis.

Background/Overview

According to one source, approximately 25,000 people a year lose a hand due to trauma and disease in the U.S., and an additional 61,000 lose one or more fingers, either in their entirety or in part (Komura, 2010).

Myoelectric prostheses of the upper extremity are sophisticated alternatives to standard body-powered devices used for the replacement of total or partial upper extremities absent due to trauma, disease or congenital causes. This type of prosthesis uses an external battery pack to supply power to electric motors and microprocessors that enable movement of the prosthetic device.

Myoelectric prosthetic devices operate through the use of surface electrodes embedded in the socket of the prosthesis. When these electrodes come into contact with the skin they are able to detect and amplify the electrical activity (electromyography signals) of muscle groups in the residual limb. These potentials are translated though microprocessor units into limb movement (for example, terminal device operation, wrist rotation, elbow flexion) via battery-powered motors. Sensation cannot be attained with a myoelectric prosthesis.

Partial-hand myoelectric prostheses, for example, i-Digits™ Quantum (Össur, Reykjavik, Iceland), are designed to replace the function of digits in individuals missing one or more of their fingers as a result of a partial-hand amputation. This type of prosthetic device requires a very specific range of amputation such as amputation level through, or just proximal to, the metacarpal phalangeal level of one or more digits.

Prostheses are class I devices exempt from U.S. Food and Drug Administration (FDA) review. Upon market entry, the manufacturer is required to register the device with the Restorative Devices Branch of the FDA and maintain a record of complaints.

Coding

The following codes for treatments and procedures applicable to this document are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

When services are Investigational and Not Medically Necessary:
When the code describes a procedure indicated in the Position Statement section as investigational and not medically necessary.

HCPCS

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)
L6715	Terminal device, multiple articulating digit, includes motor(s), initial issue or replacement

ICD-10 Diagnosis

All diagnoses

References

Government Agency, Medical Society, and Other Authoritative Publications:

1. Komura M, Eberli D, Yoo JJ, Atala A. Chapter 34: Phalanges and small joints. In: Foundations of regenerative medicine: Clinical and therapeutic applications. Atala A, Lanza R, Thomson JA, eds. Academic Press. Burlington, MA. 2010.

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Finger
Partial hand amputation

Partial hand loss
i-Digits Quantum

The use of specific product names is illustrative only. It is not intended to be a recommendation of one product over another, and is not intended to represent a complete listing of all products available.

Document History

Status	Date	Action
Reviewed	02/11/2021	Medical Policy & Technology Assessment Committee (MPTAC) review. Updated Background/Overview and Index sections.
Reviewed	02/20/2020	MPTAC review.
Reviewed	03/21/2019	MPTAC review.
Reviewed	05/03/2018	MPTAC review. The document header wording updated from "Current Effective Date" to "Publish Date." Updated Background/Overview section.
Reviewed	05/04/2017	MPTAC review.
Reviewed	05/05/2016	MPTAC review. Removed ICD-9 codes from Coding section.
Reviewed	05/07/2015	MPTAC review.
	01/01/2015	Updated Coding section with 01/01/2015 HCPCS changes; removed code L6025 deleted 12/31/2014.
Reviewed	05/15/2014	MPTAC review.
Reviewed	05/09/2013	MPTAC review.
New	05/10/2012	MPTAC initial document development.