

**EFFECTIVE DATE:** 08|06|2020

**POLICY LAST UPDATED:** 04|07|2021

## OVERVIEW

Myoelectric prostheses are powered by electric motors with an external power source. The joint movement of an upper-limb prosthesis or orthosis (e.g., hand, wrist, and/or elbow) is driven by microchip-processed electrical activity in the muscles of the remaining limb or limb stump.

This policy is applicable to the upper limb orthoses only.

## MEDICAL CRITERIA

Not applicable

## PRIOR AUTHORIZATION

Not applicable

## POLICY STATEMENT

### Medicare Advantage Plans

Myoelectric controlled upper-limb orthoses are considered not covered as the evidence is insufficient to determine that the technology results in an improvement in the net health outcome the effects of the technology on health outcomes.

### Commercial

Myoelectric controlled upper-limb orthoses are not medically necessary as the evidence is insufficient to determine that the technology results in an improvement in the net health outcome the effects of the technology on health outcomes.

## COVERAGE

Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage or Subscriber Agreement for applicable not medically necessary/not covered benefits/coverage.

## BACKGROUND

### Myoelectric Orthoses

A powered upper extremity range of motion assist device is intended to restore function to arms and hands of patients who have sustained an injury, or who suffer from cerebral palsy, neuromuscular disease, or stroke. It is a custom fabricated upper arm orthosis that has noninvasive sensors on the surface of the skin. The sensors read the nerve signals and activate small motors in the orthosis, allowing the patient to move their arm or hand. It consists of the custom fabricated orthosis; noninvasive sensors, motors, and electronics that amplify and process the nerve signals; and batteries.

### MyoPro (Myomo).

This orthotic device weighs about 1.8 kilograms (4 pounds), has manual wrist articulation, and myoelectric initiated bi-directional elbow movement. The MyoPro detects weak muscle activity from the affected muscle groups. A therapist or prosthetist/orthoptist can adjust the gain (amount of assistance), signal boost, thresholds, and range of motion. Potential users include patients with traumatic brain injury, spinal cord injury, brachial plexus injury, amyotrophic lateral sclerosis, and multiple sclerosis. Use of robotic devices for therapy has been reported. The MyoPro is the first myoelectric orthotic available for home use.

For individuals with upper-extremity weakness or paresis who receive a myoelectric powered upper-limb orthosis, the evidence includes a small within-subject study. Relevant outcomes are functional outcomes and quality of life. The largest study (N=18) identified tested participants with and without the orthosis but did not provide any training with the device. Performance on the tests was inconsistent. Studies are needed that show consistent improvements in relevant outcome measures. Results should also be replicated in a larger number of patients. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome the effects of the technology on health outcomes.

## CODING

### Medicare Advantage Plans and Commercial

The following HCPCS codes are not covered/not medically necessary:

**L8701** Powered upper extremity range of motion assist device, elbow, wrist, hand with single or double upright(s), includes microprocessor, sensors, all components and accessories, custom fabricated

**L8702** Powered upper extremity range of motion assist device, elbow, wrist, hand, finger, single or double upright(s), includes microprocessor, sensors, all components and accessories, custom fabricated

## RELATED POLICIES

Not applicable

## PUBLISHED

Provider Update, June 2021

Provider Update, October 2020

## REFERENCES:

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