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Myo Plus pattern recognition
Private Payer Billing Tips

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[1]Miscellaneous Code Description

Long Description

*L7499 Addition to upper extremity external powered myoelectric prostheses; Ottobock 13E520 Myo Plus TR pattern recognition system; Multi-factor, layered processing of the user´s amplified natural EMG signal patterns captured by a multiple electrode array to produce patient-specific rule set algorithms, allowing Myo Plus to recognize individual patient muscle signal patterns which are translated to intuitively control several prosthetic hand functions/grip types and/or several prosthetic devices (e.g. prosthetic hand, wrist rotator, wrist flexion/extension) instantaneously. The microprocessor integrates system calibration, signal quality evaluation, filtering, conditioning, processing, recognition of multiple muscle activation patterns, and transmission of complex functional controls.

Short Description (for claim)

*L7499 Add to UE ext power Myo prosth Ottobock 13E520 Myo Plus pattern recog MSRP ____

***Note:** It is not recommended to bill L7499 to Medicare for the Myo Plus at this time.

[2]Narrative Section on the HCFA 5010 Claim

Because L7499* is an unlisted (NOC) code, the claim must have additional information to describe the item, so that the payer can tell what you are billing them for. Most payers require a narrative be added to the claim (e.g. device name, manufacturer, model/serial number, and MSRP).

Where to Put the Narrative

Electronic Claim For each miscellaneous code a narrative description must be inserted into the loop 2400 (line note) segment. The narrative should include the following:

Addition to UL Ottobock 13E520 Myo Plus Pattern Recognition System MSRP $____ .

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Paper Claim Insert narrative for the miscellaneous code on **Line 19** when submitting a hand-written paper claim (CMS-1500) and write on **Line 19:**

"For claim line # ____, L7499 Addition to upper extremity external powered myoelectric prostheses; Ottobock 13E520 Myo Plus TR pattern recognition system. MSRP $_____

What if I Do Not Include a Narrative Description?

If a narrative is not included, the required information is expected to be attached to the claim. If there is no narrative or attachment your claim 1) will be rejected on the front end, or 2) will receive a denial that does not include appeal rights. Both types of denials require the claim be resubmitted with the requested information. Generally, standardized narratives enable carriers to recognize similar claims and assign pricing, thereby improving the process.

[3] Manufacturer Suggested Retail Price (MSRP) for the L7499 Miscellaneous Code

- 2020 MSRP for the Myo Plus pattern recognition system is $42,500

How Much Will I Get Paid for the Miscellaneous Code?

The reimbursement methodology for NOC/miscellaneous codes is generally stated in your contract with the payer. The most common payment methodologies are:

- MSRP minus ___%
- Cost plus ___%
- Usual and Customary (average amount that you bill for similar devices)
- Average Regional Amount billed for similar devices
- Lesser of the above

It is highly recommended to carefully review your contract with the payer when providing a miscellaneous coded product. If the information is not in your contract, provider relations may be able to help.

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Medical Review

Sometimes codes requiring narratives are sent to Medical Review regardless of proper claim submission. If this happens, you will need to submit all documentation (including proof of medical necessity) as the claim will likely undergo medical necessity review.

Ottobock's Reimbursement Team is available to help with your Myo Plus claims.
Phone: 800 328 4058 (ask for reimbursement)
E-mail your question to: reimbursement911@ottobock.com

References

[1] The product/device "Supplier" (defined as an O&P practitioner, O&P patient care facility, or DME supplier) assumes full responsibility for accurate billing of Ottobock products. It is the Supplier's responsibility to determine medical necessity; ensure coverage criteria is met; and submit appropriate HCPCS codes, modifiers, and charges for services/products delivered. It is also recommended that Supplier's contact insurance payer(s) for coding and coverage guidance prior to submitting claims. Ottobock Coding Suggestions and Reimbursement Guides are based on reasonable judgment and are not recommended to replace the Supplier's judgment. These recommendations may be subject to revision based on additional information or alpha-numeric system changes.

[2] Joint DME MAC. Local Coverage Article: Standard Documentation Requirements for All Claims Submitted to DME MACs (A55426). Not Otherwise Classified (NOC) BILLING INFORMATION. Updated January 1, 2019.

[3] The manufacturer's suggested retail pricing (MSRP) is a suggested retail price only. Ottobock has provided the suggested MSRP in the event that third-party and/or federal healthcare payer's request it for reimbursement purposes. The practitioner and/or patient care facility is neither obligated nor required to charge the MSRP when submitting billing claims for third-party reimbursement for the product (s).

Contact Information
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Myo Plus TR pattern recognition
Private Payer Reimbursement Guide

Myo Plus pattern recognition
Product Information

Myo Plus is currently available for transradial (TR) applications and is compatible with Ottobock's bebionic hand, SensorHand Speed, MyoHand VariPlus Speed, and the System Electric Greifer DMC VariPlus.

Myo Plus Primary Components

13E520 Myo Plus TR
757B35=5 Myo Energy Integral
13E400 /401 Remote Electrodes
13Z161 /162 /163 Electrode Domes
560X18 Myo Plus App (android/IOS)

Who can provide the Myo Plus?

Myo Plus must be prescribed by a physician and may only be provided by a qualified Prosthetist who has received specific product training. Ottobock employs a team of orthotists and prosthetists to educate practitioners on fabricating and fitting our products. This includes in-person and online training, webinars, and technical bulletins. We also provide Cooperative Care Services for the more challenging fittings, which includes on-site assistance with the fitting in conjunction with product qualification training for the practitioner.

Warranty

Otto Bock HealthCare (Otto Bock) warrants all of its products, to the original purchaser, to be free from defects in materials and workmanship. Myo Plus comes with a Limited 12-month Warranty.

Health Canada Compliance

This device meets the requirements of the Medical Devic Regulations (SOR/98-282). It has been classified as a class I medical device according to the classification criteria outlined in schedule 1 of the Medical Device Regulations.

FDA Classification

510(k) Number	K191179
Device Class	2
Regulation No.	21 CFR 882.1320
Classification Product Code	GXY (Electrode, Cutaneous)
Subsequent Code	IQZ (Hand, External Limb Component, Powered)
Medical Specialty	Neurology
Review Panel	Neurology

Myo Plus pattern recognition
Billing Information (U.S. only)

[1,2]HCPCS Coding

Currently, there is not a Healthcare Common Procedure Coding System (HCPCS) code to adequately describe Myo Plus pattern recognition. Therefore the following miscellaneous code must be used to describe it.

Short Description:

[2]L7499 Addition to UL prosthesis, Ottobock 13E520 Myo Plus Pattern Recognition System

Long Description:

[2]L7499 Addition to upper extremity external powered myoelectric prostheses; Ottobock 13E520 Myo Plus TR pattern recognition system; Multi-factor, layered processing of the user´s amplified natural EMG signal patterns captured by a multiple electrode array to produce patient-specific rule set algorithms, allowing Myo Plus to recognize individual patient muscle signal patterns which are translated to intuitively control several prosthetic hand functions/grip types and/or several prosthetic devices (e.g. prosthetic hand, wrist rotator, wrist flexion/extension) instantaneously. The microprocessor integrates system calibration, signal quality evaluation, filtering, conditioning, processing, recognition of multiple muscle activation patterns, and transmission of complex functional controls.

[3]Manufacturer Suggested Retail Price (MSRP) - U.S. only

2020 MSRP for Myo Plus Pattern Recognition System $42,500

References

[1] The product/device “Supplier” (defined as an O&P practitioner, O&P patient care facility, or DME supplier) assumes full responsibility for accurate billing of Ottobock products. It is the Supplier’s responsibility to determine medical necessity; ensure coverage criteria is met; and submit appropriate HCPCS codes, modifiers, and charges for services/products delivered. It is also recommended that Supplier’s contact insurance payer(s) for coding and coverage guidance prior to submitting claims. Ottobock Coding Suggestions and Reimbursement Guides are based on reasonable judgment and are not recommended to replace the Supplier’s judgment. These recommendations may be subject to revision based on additional information or alpha-numeric system changes.

[2] It is not recommended to bill L7499 to Medicare for the Myo Plus at this time.

[3] The manufacturer’s suggested retail pricing (MSRP) is a suggested retail price only. Ottobock has provided the suggested MSRP in the event that third-party and/or federal healthcare payers request it for reimbursement purposes. The practitioner and/or patient care facility is neither obligated nor required to charge the MSRP when submitting billing claims for third-party reimbursement for the product(s).

Myo Plus pattern recognition
Features and Benefits

Intuitive and Individualized Control

Myo Plus pattern recognition provides intuitive and individualized control by mapping a user's unique muscle patterns and translating them directly into various movements of the prosthesis. For example, if the user thinks of opening his/her hand and activates the physiologic muscles used for that task, the system immediately translates these signals to open the prosthetic hand or terminal device. This innovative control is considerably easier to master, which may increase adoption rate, may reduce duration of training and accelerate a return to typical daily activities.

Elimination of Switching Events

Mode switching with traditional myo-electric control such as a hand and a powered wrist requires the user to either activate a physical switch (button, prosthesis digit manipulation), co-contract muscles to change grip patterns in the hand, or allow multiple components to be activated. Mode switching can be difficult and requires both training time and concentration. In some cases, the user cannot co-contract their muscles at all which inhibits prosthesis functionality and may lead to rejection or abandonment of the device. With Myo Plus pattern recognition, the user has direct mode selection and access to prosthetic movements without requiring cumbersome switching events or "mode switching". It provides *direct and fast control* and decreases the cognitive and physical burden. This may increase utilization of certain movements such as wrist rotation. For example, the user may tie their shoelaces or button a shirt more easily and with less frustration. Increasing the ease and utility of the prosthesis may help increase overall acceptance rate and user satisfaction.

Improved Functionality and Ease of Use

Traditional myo-electric control is limited by the number of isolated, strong EMG signals and associated electrode sites (only 1 or 2). Some users have weak signals that fatigue quickly, neuropathy, or scarring that make electrode placement challenging. This inhibits prosthetic candidacy, acceptance rates and functionality. Alternatively, Myo Plus pattern recognition uses up to 8 myosite pairs which provide significantly more information as to the nature of the contraction rather than just amplitude to control the prosthesis. Any signal, even those considered "weak" by conventional myoelectric systems, can be as equally useful if they are present during specific activities. Pattern recognition has the potential to not only improve function for existing myo users, but also allow those previously unable to use myo electrics to do so.

Reduced Complexity

Clinicians no longer have to identify and place electrodes on specific anatomical targets to isolate strong signals. Weak signals are equally important because with pattern recognition, multiple myo-sites are working together. This enables the system to recognize and utilize the contraction of multiple muscles that are then recognized as patterns. Plus, the system can be recalibrated any time desired. This creates additional layers of data to further support accuracy of pattern recognition and system efficiency.

Additionally, if the relationship between limb and electrodes happens to change within the socket, the system can still function once it is recalibrated because the interpretation of the signals is not fixed to a specific location. The system adapts to the patient rather than the patient having to adapt to the system. This flexibility saves time and reduces overall complexity for both the Clinician and the user.

Myo Plus pattern recognition
Features and Benefits

Improved Speed and Proportional Control

Like traditional control, pattern recognition allows users to temper their muscle contractions to modulate the speed of the prosthesis. With traditional control, EMG signals are isolated and have to meet strict measurements to initiate a movement in the prosthesis. Weaker signals and other extraneous “noise” are intentionally filtered out. Myo Plus pattern recognition maps and utilizes multiple sets of data that are also used to enhance and provide proportional control. For example, the user can generate a “weak” signal and the hand will close more slowly around a glass. Multiple sets of data improve the efficiency of proportional control and provide greater utility of the device in everyday activities.

Reduced Cognitive Burden

Pattern recognition reduces the cognitive burden associated with traditional Myo electric control. Standard Myo users are required to concentrate deeply on difficult and unnatural myo signal patterns to fit the strict control method of 1 or 2 site control. They must adapt to the device. For example, many users struggle with the cumbersome nature of signal isolation to switch into rotation or different grip patterns. This results in a delay and interruption of movement, leading to low motivation while training and insufficient use. Due to this lack of practice, the user may lack confidence with the device control during everyday life and often abandon the prosthesis. Since Myo Plus pattern recognition only requires the user to think of and utilize innate and natural movements to operate their prosthesis, users are able to more easily and quickly control their device. Myo Plus unlocks the full potential of the user and their prosthesis because the device now adapts to the user instead of the other way around.

Real-time App Feedback and Adjustment

With traditional myo electric control, the prosthesis can be like a black box. There is no interface, visibility or feedback on the status of the system or the quality of control signals. With the *Myo Plus app* and patented Spider Plot EMG signal graphical interface, both users and clinicians are provided with real time feedback and the ability to make immediate adjustments. Once the muscles are mapped, the user can adjust the speed or sensitivity of the prosthesis or even activate or deactivate certain movements to suit a specific situation. Additionally, the user can now remotely troubleshoot their own control map. If there is interference suppression, such as electrode failure, the malfunction is displayed via the app. This allows the user and Clinician to quickly identify potential solutions. The Myo Plus app also includes some important safety features. To secure certain settings, the Myo Plus app has a Clinician Mode which requires a pin-code. Any adjustments of the Basic control set can only be adjusted by the Clinician.

Less Compensatory Movements

Users who use a body-powered or traditional myo electric prosthesis tend to over utilize their contralateral arm musculature to compensate for lack of flexibility and function with their device. For example, they may elevate their shoulder awkwardly when pouring water into a glass to avoid the strain and delay of using a wrist rotation device. Consistent and long term compensatory movements can lead to long term health complications. With the intuitive control of the Myo Plus pattern recognition system, users can increase the functionality, efficiency and speed of their prosthesis and potentially avoid the strain of unnatural compensatory movements. This in turn can promote increased use of their prosthesis in daily activities such as work and social activities.

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Pattern Recognition
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Pattern Recognition
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