



**New Hampshire Insurance Department
Mandated Benefit Review
SB 177 Expanded Access for
Children's Prosthetics and Orthotics
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Mandated Benefits Review

SB 177 Coverage for Prostheses and Orthotic Devices

I. Executive Summary

SB 177 creates several new requirements for New Hampshire Large and Individual and Small Group carriers regarding coverage for and cost-sharing of prostheses and orthotic devices.

The bill's primary intent, according to legislative testimony, is to increase children's access to activity-specific prostheses. These are artificial limbs that replace a missing limb and are suitable for running, jumping, swimming, and other sports. The benefits of physical activity are well documented for all children; activity-specific prostheses may decrease stigma and remove barriers to participation.

Pursuant to RSA 400-A:39-b, this report reviews and evaluates the social and financial impacts and the medical efficacy of mandating the benefit and cost-sharing parity, as applicable to the market. This study considers the impact of the potential new mandate on New Hampshire's Large Group plans. SB 177 specifically states that the new mandate "shall not constitute an additional to the state's essential health benefits that requires defrayal of costs by the state," which would make the new mandate inapplicable to the Small Group and Individual markets.

The purpose of a conventional prosthesis is to replace a missing body part and enable the person to complete activities of daily living, such as walking or self-care. Conventional prostheses may be too rigid or uncomfortable during sports or children's active play. In contrast, activity-specific prostheses are engineered to allow flexible or rapid motion. Examples of movement-related, activity-specific prostheses include knees, feet, and legs for running, swimming, and rock climbing. Specialized arm attachments are available for gripping handlebars, swimming, weightlifting, archery, baseball, fishing, and golf. Some prostheses require extensive customization while others can be used "off the shelf."

In Calendar Year 2022, very few children enrolled in Large Group plans received any service associated with a limb prosthesis. The estimates in this analysis recognize uncertainty about the number of children who might want one or more activity-specific prostheses, the type of device, and the amount of training or physical therapy needed to use the device as intended.

Recognizing SB 177's intent to cover prostheses for large motor physical activity such as running and unstructured play, this cost analysis is based on a prosthetic leg intended for active sports and the associated services such as fitting and using the device, approximately \$25,000 per user per year. Other prostheses may be much less expensive. With variation in the number of individuals that might seek an activity-specific prosthesis, the additional medical services cost ranges from \$0.07 Per Member Per Month (PMPM) to \$0.21 PMPM in Calendar Year 2022 dollars.

SB 177 also seeks to create cost-sharing parity for plans in the Large Group and Individual and Small Group markets such that patient share should not exceed 20% of the allowed amount. Current patient share amounts are less than 20% of the allowed amounts for all types of prostheses and associated services.

SB 177's framing creates other cost implications that are not related to expanding coverage for activity-specific prostheses. Neither SB 177 nor state law provide definitions of prostheses and orthotics or activity-specific prostheses. SB 177 would also allow the service provider to determine medical necessity for any device or service in lieu of the health plan, creating an opportunity for greatly expanded utilization without medical management for any prosthetic or orthotic device and associated service.

To clarify the intent to provide activity-specific prostheses and avoid unintended expansion in other services, the bill language should be revised to exclude orthotics (other than any that may be needed for proper fitting and use of the activity-specific prosthesis) from the medical necessity and cost-sharing provisions of SB 177 and retain health plans' medical management oversight authority.

II. Definitions

The following definitions are used in this report:

"Activity-specific prosthesis" refers to a specialized device that enables specific types of motions or mobility that cannot be achieved with a conventional prosthesis.

"Orthotics" or "Orthotic devices" describe the group of devices and appliances that are designed to support, align, prevent, or correct deformities^{1 2} or improve the function of moveable parts of the body, according to health plan covered services payment policy documentation^{3,4}. Examples include joint braces, splints, cranial helmets, foot orthoses (shoe inserts), and spinal supports such as a cervical collar.

"Cost Sharing Parity" means that the enrollee's share of the cost of a benefit (such as deductibles, copayments, coinsurance, and out-of-pocket limitations) must be comparable to the out-of-pocket limitations applied to Medicare beneficiaries. Medicare provides an 80/20 reimbursement rate after a deductible has been met, with no annual limit.⁵

"Prostheses" or "Prosthetic Devices" in this report are external devices designed to perform or replace all or part of the function of a permanently inoperative or malfunctioning body part. They may be custom-made artificial limbs or other assistive devices for people who have lost limbs as a result of injury, congenital disorder, cancer, or other disease⁶ as well as cochlear implants, wigs, iris implants, breast prostheses, and mastectomy bras.

"Associated services" means the procedures and visits related to the fitting adjustment or training for the prosthesis or orthotic device. Examples include imaging, office visits, and surgery, as well as physical and occupational therapy services.

III. SB177 Provisions and Applicability

A. Legislative language

The bill contains cost-sharing parity requirements and benefit coverage requirements. Prostheses, orthotic devices, and activity-specific devices are not otherwise defined. SB 177 attempts to create a new pediatric coverage mandate applicable to individual market, group market, health services plans, and HMOs. However, the bill also provides that "The requirements of this act shall not constitute an addition to the state's essential health benefits that requires defrayal of costs by the state pursuant to 42 U.S.C. Section 18031(d)(3)(B)." The new mandate would add to the state's essential health benefits if it

was applied to the Individual and Small Group markets and would require defrayal by the state. For the purposes of this report, the mandate would apply to New Hampshire individuals under the age of 19 enrolled in Large Group plans.

The bill would allow the treating provider to determine medical necessity and select the most appropriate prosthesis or orthotic device that meets the medical needs of the enrollee. Furthermore, the bill establishes that the enrollee's provider may determine the most appropriate type of device for performing physical activities such as running, biking, and swimming to maximize the enrollee's upper or lower limb function. Covered services would include the device, related materials and components, instructions on use, and any repair or replacement services as determined by the treating provider.

SB 177 requires cost sharing parity similar to Medicare cost sharing. For this analysis, we assume that the bill would impose a cost-sharing provision that is not more than 20% coinsurance. These cost-sharing requirements are only applicable to the pediatric population. Cost-sharing mandates are not considered a change to covered benefits and therefore this new requirement would not add to the state's EHB or be subject to defrayal for the Individual and Small Group markets.

B. Scope of the Analysis of Impact on Plans in the Large Group Market

Current law requires coverage for the following:

- RSA 415:18-n Coverage for Certain Prosthetic Devices, which requires coverage for an artificial limb device to replace, in whole or in part, an arm or leg.
- RSA 415:18-d Coverage for Scalp Hair Protheses, which requires coverage for scalp hair prostheses worn for hair loss suffered as a result of alopecia areata, alopecia totalis, alopecia medicamentosa resulting from the treatment from any form of cancer or leukemia, or permanent loss of scalp hair due to injury. Note that coverage for alopecia medicamentosa shall not exceed \$350 per year.

This analysis will review the following factors for both the expanded benefit and cost-sharing parity:

- Social impact.
- Financial impact, including the extent to which devices are already covered and the potential impact of medical management limitations.
- Medical efficacy.
- Effects of balancing the social, economic, and medical efficacy considerations.

C. Scope of the Analysis of Impact on Plans in the Individual and Small Group Markets

With respect to the Individual and Small Group markets, coverage of medically necessary prostheses is already included as an essential health benefit (EHB). The state's Benchmark Plan (BMP) provides coverage for prostheses and orthotics under the Durable Medical Equipment and Medical Devices benefit. To the extent that the mandate would be expanded to include activity-specific devices that are not medically necessary, the prohibition on adding to the state's EHB in section 5 of the bill would prevent the expansion of the benefit to the Individual and Small Group markets.

With respect to Cost Sharing Parity, the analysis for the Individual and Small Group markets will focus on:

- The social impact of cost-sharing parity for the pediatric population.
- The financial impact of cost-sharing parity for the pediatric population.
- The medical efficacy of cost-sharing parity, if any, for the pediatric population.
- The effects of balancing the social, economic, and medical efficacy considerations.

IV. Discussion of Prostheses and Orthotics

A. Prostheses and Orthotic Devices

Prostheses are devices designed to perform or replace all or part of the function of a permanently inoperative or malfunctioning body part. RSA 415:18-n mandates coverage for artificial limbs or other assistive devices. This is generally for people who have lost limbs as a result of injury, congenital disorder, cancer, or other disease.⁷ The coverage also includes cochlear implants, wigs, iris implants, breast prostheses, and mastectomy bras. In the NH Large Group claims data for children, some prosthesis claims were associated with the placement of myringotomy tubes, which are used to treat persistent otitis media (ear infections). Often, people with prostheses require additional, associated services to ensure proper fit and to learn how to use the device (e.g., learning how to balance on a prosthetic leg or how to operate a pincer grip hand). These services may include device adjustments, physical therapy, and repairs.

A conventional prosthesis replaces a missing body part and enables activities of daily living, such as walking or self-care. Conventional prostheses may be insufficiently flexible, too rigid, or unable to support movement during sports or children's active play. In contrast, activity-specific prostheses are specifically engineered to meet the requirements of an activity. Examples of movement-related, activity-specific prostheses include knees, feet and legs for short and long-distance running, swimming, and rock climbing. Specialized arm attachments are available for gripping handlebars, swimming, weightlifting, archery, baseball, fishing, and golf. Some prostheses require extensive customization while others can be used "off the shelf" with a connection to a socket that is attached to the end of an existing limb.

Many prostheses are "body powered" and rely on "mechanical transmission of muscular effort generated elsewhere in the body, remote from the amputation site."⁸ Myoelectric prostheses (so-called "bionic limbs") have motors controlled by input from electric signals generated by muscles in the residual limb. These are more expensive than body-powered prostheses and users incur a higher cost for fitting, training, and maintenance.⁹ To date, adolescents and adults, rather than younger children, are considered better candidates for myoelectric devices.¹⁰ One literature review noted a lack of evidence for determining whether upper limb body-powered prostheses were superior to myoelectric devices and recommended decision-making processes that consider patients' individual needs.¹¹

Orthotic devices support, align, prevent, or correct deformities¹² or improve the function of moveable parts of the body. Orthotic devices include shoe inserts, nighttime mouth guards, joint braces, splints, cranial helmets, cervical collars as well as walking braces for individuals with cerebral palsy, for example. The devices may be required temporarily after an injury or on a longer-term basis to provide ongoing support.

B. Limb Loss in Children

The Centers for Disease Control estimates that approximately 2 million United States (US) residents are living with limb loss, with children under 18 accounting for 1.6% of the total or about 30,000.^{13,14} Researchers estimate that about 1 in every 1,900 babies is born with a limb reduction defect in the US¹⁵. Some of these babies will have both upper and lower limb reduction defects. Other sources report that approximately 25,000 children in the US use lower extremity prostheses.¹⁶

Children’s prostheses need to be replaced or adjusted every 1-5 years due to growth or breakage. Without insurance, these costs can be prohibitive, and as a result, individuals with limb loss are often forced to remain sedentary or risk injury by exercising with inadequate or ill-fitting devices.¹⁷

C. Efforts in Other States

Legislative action in other states is relatively recent and no data is available on uptake or claims experience.

- Maine is the first state to cover prosthesis and orthosis care necessary for physical activity in this age group; coverage will be effective in 2024.
- Arkansas Act 805 of 2023¹⁸ defines recreational prostheses and requires carriers to provide recreational prostheses at established durations, requires alignment with Medicare functional level status, and “exhibits an ability to perform above and beyond normal ambulation.” These devices are also subject to carrier coverage at not less than 80% of the Medicare allowable amount, which may be less than the health plan’s negotiated rate.
- Colorado enacted HB23-1136¹⁹ which established coverage for recreational prostheses for covered individuals under the age of 26.
- New Mexico’s Chapter 196 of 2023²⁰ requires coverage of expenses associated with prostheses and orthotics to at least the same extent as Medicare and with cost parity to the plan’s medical and surgical benefits including recreational devices in this coverage.

V. Benefit Mandate in Large Group Plans

A. Social Impact of the Mandate

Parents of children with limb loss report limitations due to mobility restrictions, including typical activities such as roller skating, bicycling, and using playground equipment such as climbing structures.²¹ The American Academy of Pediatrics called for an elimination of barriers to physical activity for children with disabilities, which promotes inclusion, minimizes deconditioning, optimizes physical functioning, improves mental health as well as academic achievement, and enhances overall well-being.²²

Research suggests that children with limb loss will benefit from fully participating in recreational activities that support better physical and mental health as well as social engagement and academic achievement. Conventional prostheses may create barriers to participation that could be overcome with activity-specific devices.

B. Medical Efficacy of the Mandate

1. Prostheses

Two aspects of SB 177 may affect how services are delivered: (1) the effect of the mandate for activity-specific devices on the affected population and (2) the effect of provider-led determinations of medical necessity on services.

Effect of the Mandate: The importance of movement for children is well documented. Bone strength, muscle mass, and circulatory systems all benefit from regular, vigorous activity.^{23,24,25} When mobility is limited, children with limb loss may face barriers and limitations in fully engaging in recreational play and organized sports. Recreational activities also contribute to developmental and neurological progress as well as providing social engagement and participation in a community of peers. “The opportunity for social connection is an important motivator for physical activity participation for young people and adults.”²⁶

Effect of Provider-Led Determination of Medical Necessity: SB 177 calls for “medical necessity as determined by the enrollee’s provider” but offers no definition of the type of provider that should make the determination. The child’s physician plays a key role in the evaluation and recommendation of services. Absent some clarification on the definition of provider, any prosthetist could make the determination. According to the American Orthotic and Prosthetic Association, prosthetists are not required to have a specific certification or expertise in fitting children’s activity-specific prostheses²⁷. Clinical guidelines or best practices have not yet been developed. Most pediatric prosthetists practice at children’s medical centers such as Boston’s Children’s Hospital and local access to experienced practitioners may be limited. While best practices are still being formalized, the definition of “provider” should be carefully considered in the law.

Health plan payment documentation lists exclusions such as “specialized devices or equipment for sports or occupational purposes: and sports braces²⁸” and “devices or additions/components not required for participation in normal activities of daily living, including that are chiefly for.... participation in recreational activities.”²⁹

2. Orthotic Devices

The bill would also create provider-led authorization for orthotics, which are quite different from prostheses.

Effect of the Mandate: Few studies have explored the benefits and costs of orthotics that enable children to participate in activity-specific activities.³⁰ Two studies note that foot orthoses benefit children with juvenile arthritis.³¹ Orthotics may be part of an overall treatment plan to restore or improve mobility for children with limb deficiencies or amputations.³² A recent systematic review reported that patient compliance is notably spurious among individuals prescribed lower-extremity orthoses, citing sub-optimal functionality, poor aesthetics, and stigmatization.³³

Effect of Provider-Led Determination of Medical Necessity: Under SB 177, many more children would potentially have access to orthotics, but there is limited research on the medical benefits of orthotics

generally for children.³⁴ When an orthotic is needed as part of a treatment plan for an activity-specific prosthesis, the provider-led determination of necessity would be justified.

C. Financial Impact of Adding Coverage for Activity-Specific Devices

Analysis of the financial impact of the mandate is based on the estimated number of service users and the estimated cost of the service.

1. Number of Service Users

In Calendar Year 2022, Large Group plans enrolled approximately 81,000 children under the age of 19. Of this group, claims for 52 distinct beneficiaries included CPT codes for any kind of prosthesis. Most claims in this category were for non-limb prostheses such as cochlear implants. Fewer than 11 children received a service associated with a CPT code for a limb prosthesis; information about this subgroup will be suppressed due to small cell sizes.

The following range was used to conservatively estimate the number of people who might come forward if activity-specific prostheses became available.

Low:	10 service users per year
Medium:	20 service users per year
High :	30 service users per year

2. Cost of Activity-Specific Prostheses and Associated Services

Claims experience data for limb-related prostheses is not sufficient and has been suppressed. To estimate the cost of services for those who might seek an activity-specific prosthesis, this analysis uses information from US suppliers and literature. In 2020, the Washington Post reported that “prosthetic limbs can cost anywhere from \$5,000 to over \$50,000, and many insurance carriers restrict financial coverage, placing limits on how much they will pay.” In 2017, the cost of myoelectric prostheses ranged from \$75,000 to \$98,000. The National Institute of Health (NIH) notes that new developments in prosthesis design continue to emerge, including robotics, 3D printing, artificial intelligence, virtual reality, and motion-sensing devices.³⁵

Although the cost of a hand or foot prosthesis may be relatively low, an activity-specific prosthesis is likely to require a separate and specially designed socket that is optimized for activity or waterproof. Unknown variation in patient needs and uncertainty around treatment plans and types of prostheses needed point to the need for a conservative cost estimate. According to Amputee Blade Runner (ABR), a nonprofit organization that assists in providing running blades which are a type of activity-specific prosthesis, the prosthesis and associated services cost between \$10,000 and \$20,000. Joshua Southard, ABR Executive Director, noted that most children seek access to activity-specific prostheses at some point in their development. These devices are typically replaced every 9 to 18 months, depending on the child’s growth rate and how often the child uses them. ABR estimates that the full cost of a running blade is \$20,000, including fittings and training in its use. The cost may be higher if the prosthesis needs to include a knee joint. Other types of activity-specific prostheses, such as a swimming arm or bicycle foot, may be less expensive; public price lists are not available. A 2020 study notes that the cost of a

waterproof prosthesis was nearly \$20,000 in 2005 and estimated that modifications would add an additional \$1,500 to \$3,000.³⁶ Researchers hope to use 3D printing to reduce costs in the future³⁷.

This analysis uses the estimated cost of a running blade at \$20,000 for the device, fittings, and initial instruction. Running blades are suitable for a variety of organized sports and recreational play that SB 177 intends to support. While the treatment needs will vary by patient, a weight-bearing limb requires molding a socket to the remaining limb. The socket is designed to comfortably distribute pressure, enhance comfort, and maximize control.³⁸ For a child with an arm reduction, several different prostheses may be needed to participate in different types of activities. Due to the small number of children, projections on the type of prosthesis needed or multiple devices were not made. The use of a high unit cost in this estimate is intended to account for this uncertainty.

Once a device and associated services become a covered benefit, the unit cost typically increases anywhere from 30% - 50%. This analysis increases the base cost by 30%, to \$26,000 to adjust for anticipated provider rate increases. We add \$1,000 to the estimated cost for repairs, for a total annual estimate of \$27,000.

As shown in Table 1, the PMPM for the expanded benefit ranges from a low of \$0.07 PMPM to a high of \$0.21 PMPM.

Table 1: Range of Estimated Costs for Activity-Specific Devices and Associated Services in Large Group Plans

Year 1	Low	Medium	High
Estimated Number of Service Users	10	20	30
Estimated Annual Cost of Device, Services & Repairs	\$27,000	\$27,000	\$27,000
Estimated Additional Medical Costs	\$270,000	\$540,000	\$810,000
Member Months	3,851,614	3,851,614	3,851,614
Per Member Per Month	\$0.07	\$0.14	\$0.21

D. Financial Impact of Provider-Led Authority for Medical Necessity: Induced Demand

SB 177 creates provider-led determination for any prosthesis and orthotics. Section I of the bill directs coverage of benefits for devices “determined by the enrollee’s provider to the most appropriate model that adequately meets the medical needs of the enrollees.” This language creates broad authority for prosthetists and orthotists to supply devices and associated services without health plan review.

An estimate of the medical expense increase resulting from provider-led authority is based on induced demand factors used in the Affordable Care Act (ACA) metal-level plans. This analysis assumes that Large Group plans offer similar benefit structures as ACA Silver Plans. The effect of provider-led determination of medical necessity is estimated to increase utilization to a level equivalent to a Platinum Plan. ACA induced demand factors are 1.03 for Silver Plans and 1.15 for Platinum Plans, or a 10.43% increase in expenditures. The ACA factors assume that plans have full medical management and oversight capacity to determine medical necessity.

Total spending for all prostheses and related services was \$0.09 PMPM in Calendar Year 2022. With induced demand factor applied, the PMPM would increase by \$0.01. In contrast, expenditures for

orthotics devices and associated services comprise 94% of total medical expenses for children’s prostheses and orthotics devices and associated services. See [Appendix B](#) for codes in claims data. Induced demand here increases the PMPM by \$0.05 PMPM.

Table 2 summarizes the effect of induced demand using Calendar Year 2022 claims. Total increased medical cost is estimated at \$0.05 PMPM.

Table 2: Estimated Additional Medical Expense Resulting from Provider Led Medical Necessity Determination – Large Group Plans, Calendar Year 2022, All Prostheses and Orthotic Devices and Associated Services

	Prostheses	Orthotic Devices	Total
Calendar Year 2022 PMPM All Devices & Services	\$0.09	\$0.41	\$0.50
Induced Demand Factor	10.43%	10.43%	
PMPM Adjusted for Induced Demand	\$0.10	\$0.46	\$0.56
Estimated PMPM Increase -- Induced Demand	\$0.01	\$0.04	\$0.05

Note: Reflecting the uncertainty of these estimates, this table shows rounded numbers that may not sum, divide or multiply to totals shown.

E. Combined Effects of Social Impact, Medical Efficacy, and Financial Impact

Activity-specific prostheses offer an opportunity for children with limb loss to participate in developmentally appropriate recreational activities with peers. These activities can contribute to physical and mental health and a sense of social connection. The number of children who accessed any limb prosthesis and enrolled in Large Group plans in Calendar 2022 was too small to report. Service use and cost estimates are therefore based on a hypothetical number of people who might desire an activity-specific prosthesis.

SB 177’s provider-led determination of medical necessity could expedite access to activity-specific prostheses. Access to qualified providers may be limited to those who can travel to a major facility with expertise in children’s prostheses, and especially activity-specific devices. The potential for expanded access is unclear, as pediatric prostheses and activity-specific prostheses service providers are not subject to certification.

Table 3 summarizes the financial impact of adding coverage for activity-specific prostheses and induced demand resulting from provider-led medical necessity determination. The estimated additional cost for activity-specific devices ranges from \$0.07 PMPM to \$0.21 PMPM, depending on the number of children who might obtain an activity-specific device. Provider-led determination of medical necessity could add \$0.05 PMPM for all types of prostheses and orthotic devices and associated services. The total estimated cost of adding this benefit ranges from \$0.12 PMPM to \$0.26 PMPM, depending on the number of service users.

Table 3: Summary Estimated PMPM for Expanded Benefit in Large Group Plans, Calendar Year 2022 Medical Expense

	Low	Medium	High
Estimated New Activity-Specific Devices PMPM	\$0.07	\$0.14	\$0.21
Estimated Induced Demand PMPM	\$0.05	\$0.05	\$0.05
Estimated PMPM Increase	\$0.12	\$0.19	\$0.26

Note: Reflecting the uncertainty of these estimates, this table shows rounded numbers that may not sum, divide or multiply to totals shown.

VI. Cost Sharing Parity – Both Markets

A. Social Impacts of Access to Activity-Specific Prostheses

Social impacts of access to activity-specific prostheses due to cost-sharing parity are similar to those noted in expanding the mandate for Large Group Plans. Families' ability to pay a significant portion of the cost of an activity-specific prosthesis may be limited. Assistance from non-profit organizations is also limited, especially when the organization requires the family to travel out of state for fittings.

B. Medical Efficacy of Cost Sharing Parity

Recent literature on cost-sharing parity considers actions to align cost-sharing for Mental Health and Substance Use Disorder (MHSUD) with provisions for medical services. Studies suggest that “Requiring patients to pay a portion of their medical bill out of pocket, also known as cost-sharing, sharply reduces their use of health care resources.³⁹”

For amputees, “Earlier receipt of a prosthesis is associated with reduced spending in the 12 months postamputation of approximately \$25,000 compared with not receiving a prosthesis. The results of this study suggest that not providing or delaying the provision of a prosthesis increases costs by about 25%.⁴⁰” Numerous studies^{41,42,43} detail the benefits of exercise for children and the benefits for long-term health status. For adult amputees, a small study found that receipt of a prosthesis within 12 months postamputation reduces total direct healthcare costs.⁴⁴ Pediatric prosthesis services are based on developmental needs, as discussed [above](#).

C. Financial Impact of Cost Sharing

1. Calendar Year 2022 Cost Sharing Experience for Prosthetic and Orthotics Devices and Associated Services

This analysis reviewed claims data for Calendar Year 2022 for children under age 19 enrolled in Large Group and the Individual and Small Group plans. The analysis reviewed total allowed amounts (the health plan’s contracted fee schedule for services) and the patient cost share reported by the health plan. This review did not consider variations in benefit plans or timing of claims that might affect whether copayments and deductibles were fully the patient’s responsibility. Aggregated patient cost share amounts were compared to total allowed amounts, with the following results:

- In the Large Group market, the patient paid cost share for all prostheses and associated services was 9.96% of the total allowed amount. For orthotics and associated services, the patient paid

cost share was 22.70% of the total allowed amount. Across all prostheses and orthotic devices and associated services, the patient paid cost share was 20.44% of allowed amounts.

- In the Individual and Small Group market, the patient paid cost share for all prostheses and associated services was 12.27% of the total allowed amount. For orthotics and associated services, the patient paid cost share was 44.34% of the total allowed amount. Across all prostheses and orthotic devices and associated services, the patient paid cost share was 35.06% of allowed amounts.

If SB177 scope is limited to prostheses and associated services, based on Calendar 2022 claims data, there would be no financial impact on either Large Group or Individual and Small Group plans. Reported patient cost share for Large Group Plans and Individual and Small Group plans were both less than the proposed 20% ceiling. Therefore, no cost parity mandate appears to be needed for prostheses and associated services.

Table 4: Patient Percentage Cost Share for Children’s Prosthesis and Orthotics Services, Calendar Year 2022 Medical Expenses

	Large Group Plans			Individual and Small Group Plans		
	Total Allowed Amount	Total Patient Paid	% Patient Paid	Total Allowed Amount	Total Patient Paid	% Patient Paid
All Prostheses & Services	\$344,092	\$34,276	9.96%	\$163,229	\$20,022	12.27%
All Orthotics Devices & Services	\$1,595,324	\$362,088	22.70%	\$400,696	\$177,673	44.34%
Total	\$1,939,416	\$396,364	20.44%	\$563,925	\$197,695	35.06%

Note: Reflecting the uncertainty of these estimates, this table shows rounded numbers that may not sum, divide or multiply to totals shown.

2. Potential Impact of Induced Demand on Cost Sharing for Orthotics Devices and Associated Services

Noting that only orthotics devices and associated services would be affected by a cost sharing ceiling, the cost sharing parity estimates are adjusted to reflect induced demand as discussed above in Section V.D Financial Impact of Provider-Led Authority for Medical Necessity. The adjustment has minimal impact on the Large Group PMPM and increases the Individual and Small Group PMPM by \$0.01.

Table 5: Estimated Effect of Patient Share Cost Ceiling with Induced Demand. Calendar Year 2022

	Large Group Plans	Individual and Small Group Plans
PMPM Patient Share Shifted to Plans	\$0.01	\$0.06
Induced Demand Due to Provider Led Medical Necessity	10%	10%
Adjusted PMPM	\$0.01	\$0.07

Note: Reflecting the uncertainty of these estimates, this table shows rounded numbers that may not sum, divide or multiply to totals shown.

3. Summary of Financial Impact of Cost Sharing on PMPM

Overall, the estimated impact of limiting cost sharing to no more than 20% of allowed amounts is \$0.01 PMPM in Large Group plans and seen only for orthotics devices and associated services. In Small Group and Individual plans, the estimated impact of limiting cost sharing to 20% of allowed amounts is \$0.07 PMPM, also seen only for orthotics devices and associated services.

Table 6: Estimated Effect of Cost-Sharing Parity on PMPM

	Large Group Plans	Individual and Small Group Plans
PMPM Cost Sharing Ceiling Shift to Plans	\$0.01	\$0.06
Induced Demand Due to Provider Led Medical Necessity	\$0.00	\$0.01
Estimated Total PMPM Impact of Cost Parity	\$0.01	\$0.07

Note: Reflecting the uncertainty of these estimates, this table shows rounded numbers that may not sum, divide or multiply to totals shown.

D. Combined Social, Medical, and Financial Effects of Cost Sharing Provisions

The benefit of expanded access to activity-specific devices is supported by research into children’s well-being, and their physical and social development.

The estimated total impact of cost parity for Large Group plans is \$0.01 PMPM and \$0.07 PMPM for Individual and Small Group Plans. A 20% cost share for a running blade could be upwards of \$4,000 at current market estimates. These out-of-pocket costs may be an obstacle for some families. The impact of cost share on access is therefore uncertain.

VII. Carrier Comments

Anthem Blue Cross Blue Shield commented:

- Leaving the decision regarding the appropriate model to the physician without using utilization management parameters could lead to much higher costs. Under current UM requirements for many devices, some guidelines achieve the needed function of the member at a lower cost than a device that exceeds the member’s needs. Costs could vary significantly from meeting a member’s needs to models that go far beyond what is needed, which cost significantly more.
- The bill language is quite broad and including recreational activity (including sports) adds complexity. There are many questions including when and how often a provider could prescribe a device for different sports, how to account for changing sports, and how to account for outgrowing devices. This could add significant cost.

Harvard Pilgrim Health Care, a Point32Health Company, commented:

- SB 177 would mandate fully insured commercial insurance coverage of orthotic and prosthetic devices for children and youth up to 18 years of age. In addition to a device that would meet the medical needs of the enrollee, insurers would be required to cover “a prosthetic or orthotic device determined by the enrollee’s provider to be the most appropriate model that meets the

medical needs of the enrollee performing physical activities, such as running, biking, and swimming.”

- Harvard Pilgrim currently covers medically necessary prosthetic devices that support functional mobility and activities of daily living, including being able to feed, cleanse, and dress oneself, and sit, stand, and walk. Harvard Pilgrim also covers medically necessary orthotic devices for the treatment of systemic circulatory diseases and to support or correct deformities. Current coverage includes maintenance, repair, or replacement of medically necessary devices.
- However, the bill language is much broader than our current coverage. Devices used specifically for recreational activities are not covered because they are not considered medically necessary. The bill, if passed, may also require insurers to cover devices based solely on a doctor’s order, which would impact our ability to manage care for our members. There is a wide range in cost for orthotic and prosthetic devices. An enrollee may want several different devices depending on the activity and this bill appears to give the provider the ability to order what is requested. Requiring coverage of costly devices that are not medically necessary would increase medical costs for individuals and employers in the state.

VIII. Summary

SB 177 seeks to provide coverage for activity-specific children’s prostheses for recreational purposes. The bill intends to limit a health carrier’s ability to apply medical management techniques regarding what may be considered medically necessary. The bill also seeks to ensure that the patient’s share of the cost does not exceed 20% of the allowed amount.

Activity-Specific Prostheses for Children: Overall, this mandate appears advantageous to children with limb deficiencies. Health plans offer coverage for conventional prostheses that replace a missing body part and allow a child to perform activities of daily living. For children, these devices may not be optimized for sports or unstructured recreational play. Examples of activity-specific upper limb prostheses include attachments for gripping handlebars, swimming, weightlifting, archery, baseball, fishing, and golf. Examples of lower limb prostheses include knees, feet and legs for short and long distance running, swimming and rock climbing. Participation in organized sports and free play enhances physical, emotional, and social development for any child. SB 177’s coverage mandate points at ensuring that children with limb deficiencies can join in these activities.

During Calendar Year 2022, very few children enrolled in Large Group plans sought a prosthesis or an associated service for a limb deficiency. Most of the claims in this category concerned devices and treatment for hearing conditions. Fewer than 11 children had any limb-related claim for a prosthesis or associated service for a limb, and all data for this group is therefore suppressed. In light of limited information on prevalence and claims experience, this analysis estimated costs based on a hypothetical number of service users and a unit cost representing the total estimated cost for a “running blade” prosthesis and associated fitting, physical therapy, and repairs. Activity-specific arm prostheses may be less costly; however, an active child may require multiple devices to participate in different sports or recreational activities. The use of a high unit cost in this estimate is intended to account for this uncertainty.

Families may need to travel to children’s medical centers to find prosthetists with experience in activity specific devices, fittings, adjustments, and other services. Most prosthetists treat older adults needing to resume activities of daily living, quite different from the needs of children and teens. National practice

standards or certifications for children’s activity-specific prosthesis providers have not yet been developed.

Actual claims experience may be less after a mandate when a health plan might negotiate a more favorable fee schedule than quoted to those paying entirely-out-of-pocket. The estimated additional Large Group plan wide PMPM ranges between \$0.07 and \$0.21 PMPM, depending on the number of children who seek such care and are able to use these devices.

Effect of Limiting Health Plans’ Ability to Apply Medical Management: SB 177’s mandate for provider-led medical necessity will limit health plans’ ability to apply medical management techniques. The prosthetist and orthopedist will be given all authority to determine the type and volume of services without constraint. Orthotic devices and associated services account for about 80% of total spending in both markets combined. In general, orthotic devices are not associated with increasing mobility for those needing a prosthesis. Eliminating plans’ ability to apply medical management criteria could easily lead to much higher orthotics utilization and spending.

Effect of Cost Sharing Parity: Claims experience for any prosthesis and associated service as recorded in Calendar Year 2022 for both Large Group and Individual and Small Group Market plans indicates that the patient cost share is well under 20%. This mandate does not appear to be needed for prostheses and associated services.

Table 7 summarizes the financial impacts of each component of SB 177.

Table 7: Estimated Total Financial Impact of SB 177, Calendar Year 2022 PMPM

	Large Group Plans	Individual and Small Group Plans
New Mandate for Activity-Specific Prostheses (midpoint of range)	\$0.14	NA
Induced Demand Due to Provider Led Medical Necessity	\$0.05	\$0.04
Impact of Cost Sharing Parity	\$0.01	\$0.06
Estimated Total PMPM Impact of SB 177	\$0.20	\$0.10

Note: Reflecting the uncertainty of these estimates, this table shows rounded numbers that may not sum, divide or multiply to totals shown.

SB 177’s mandate for expanded access to activity-specific prosthesis and associated services offer real benefit to children with limb deficiencies. However, without clear service definitions and health plans’ medical necessity oversight, the bill creates an opportunity for greater authorization for both types of devices and levels of service that could extend well beyond the bill’s intent. Framers may wish to narrow the focus of the mandate by defining the types of prostheses that contribute to participation in recreational activities.

Bibliography and End Notes

- Hall, M., Wustrack, R., Cummings, D., Welling Jr., R., Kaleta, M., Koenig Jr., K., Laine, J., & Morgan, S. (2021). Innovations in Pediatric Prosthetics: Current Concept Review. *Journal of the Pediatric Orthopaedic Society of North America*, 3(1). <https://doi.org/10.55275/JPOSNA-2021-221>
- Kerfeld, C., Jirikowic, T., Allyn, K. J., & Maitland, M. E. (2018). Participation in active play of children who use lower extremity prostheses: an exploratory questionnaire. *Prosthetics and Orthotics International*, 42(4), 437-445.
- McLarney, M., Pezzin, L. E., McGinley, E. L., Prosser, L., & Dillingham, T. R. (2021). The prevalence of lower limb loss in children and associated costs of prosthetic devices: A national study of commercial insurance claims. *Prosthetics and orthotics international*, 45(2), 115–122. <https://doi.org/10.1177/0309364620968645>
- McLaughlin, S. (2019). Recreation is a Right Not a Write-off. *University of New England*. <https://legislature.maine.gov/testimony/resources/>
- Pediatric Limb Loss and Limb Difference: An Introduction for Parents. (2020). *Amputee Coalition*. <https://www.amputee-coalition.org/resources/pediatric-limb-loss-and-limb-difference-an-introduction-for-parents/>
- Prosthetic Leg Cost. (n.d.). *Cost Helper Health*. <https://health.costhelper.com/prosthetic-legs.html>
- Smith, D. & Campbell, K. (2009). Prostheses for Children with Limb Differences. *Amputee Coalition*. <https://www.amputee-coalition.org/resources/prostheses-for-children/>
- So Kids Can Move Frequently Asked Questions. (2023). *American Orthotic & Prosthetic Association*. <https://www.aopanet.org/wp-content/uploads/2022/12/Frequently-Asked-Questions>
- So Kids Can Move. (2023). *American Orthotic & Prosthetic Association*. Retrieved 9 June 2023, from <https://www.aopanet.org/so-kids-can-move/>
- Top 5 Advantages of Using Prosthetics for Children. (2022). *Hope Abilitation Medical Center*. Retrieved 9 June 2023, from <https://www.hope-amc.com/what-are-the-benefits-of-prosthetics-for-children/>
- Washington State Department of Health, Information Summary and Recommendations Prosthetics and Orthotics Coverage Mandated Benefit Sunrise Review , December 2011
 “https://app.leg.wa.gov/ReportsToTheLegislature/Home/GetPDF?fileName=ProstheticsOrthoticsCovergeSunriseFinal_2ff1d9aa-ef04-483c-8cb9-084d3451f315.pdf”

Appendix A: SB 177 Bill Text

SB 177-FN - AS INTRODUCED

2023 SESSION

23-1041
05/04

SENATE BILL ***177-FN***

AN ACT to create orthotics and prosthetics parity and ensure coverage of orthotics and prosthetics for the performance of physical activities for children 18 years of age and younger.

SPONSORS: Sen. Prentiss, Dist 5; Sen. Perkins Kwoka, Dist 21; Sen. Watters, Dist 4; Sen. Soucy, Dist 18; Sen. Whitley, Dist 15; Sen. Fenton, Dist 10; Sen. Carson, Dist 14; Rep. Bolton, Graf. 8; Rep. Palmer, Sull. 2; Rep. Morse, Graf. 9

COMMITTEE: Health and Human Services

ANALYSIS

This bill creates orthotics and prosthetics parity and requires health insurance providers to cover prosthetic and orthotic devices for the performance of physical activities for children 18 years of age and younger.

.....

Explanation: Matter added to current law appears in ***bold italics***.
Matter removed from current law appears ~~(in brackets and struckthrough)~~
Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

SB 177-FN - AS INTRODUCED

23-1041
05/04

STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Twenty Three

AN ACT to create orthotics and prosthetics parity and ensure coverage of orthotics and prosthetics for the performance of physical activities for children 18 years of age and younger.

Be it Enacted by the Senate and House of Representatives in General Court convened:

2 1 New Section; Accident and Health Insurance; Coverage for Prosthetic and Orthotic Devices;
3 Individual Coverage. Amend RSA 415 by inserting after section 6-a1 the following new section:

4 415:6-bb Coverage for Prosthetic and Orthotic Devices for Children. Each insurer that issues or
5 renews any individual policy, plan or contract of accident or health insurance providing benefits for
6 medical or hospital expenses shall provide coverage for prosthetic and orthotic devices for children
7 and youth up to 18 years plus 365 days, who are residents of this state and covered by such
8 insurance. This coverage shall at least equal the coverage and payment for prosthetic and orthotic
9 devices provided under federal laws and regulations for the aged and disabled pursuant to 42 U.S.C.
10 Sections 1395k, 1395l and 1395m and 42 C.F.R. Sections 414.202, 414.210, 414.228 and 410.100 and
11 be no less favorable than the terms and conditions for the medical and surgical benefits in the policy.
12 Covered benefits shall be provided for:

13 I. A prosthetic or orthotic device determined by the enrollee's provider to be the most
14 appropriate model that adequately meets the medical needs of the enrollee;

15 II. In addition to coverage of a prosthetic device required by paragraph I, a prosthetic or
16 orthotic device determined by the enrollee's provider to be the most appropriate model that meets
17 the medical needs of the enrollee for purposes of performing physical activities, as applicable, such
18 as running, biking, and swimming, and to maximize the enrollee's upper limb function;

19 III. All materials and components necessary to use the device;

20 IV. Instruction to the enrollee on using the device; and

21 V. The repair or replacement of a prosthetic or orthotic device that is determined medically
22 necessary or is necessary for maximizing the enrollee's ability to ambulate, run, bike, and swim and
23 for maximizing upper limb function, as determined by the treating provider.

24 2 New Section; Accident and Health Insurance; Coverage for Prosthetic and Orthotic Devices;
25 Group. Amend RSA 415 by inserting after section 18-ee the following new section:

26 415:18-ff Coverage for Prosthetic and Orthotic Devices for Children. Each insurer that issues or
27 renews a policy of group or blanket accident or health insurance providing benefits for medical or
28 hospital expenses shall provide coverage for prosthetic and orthotic devices for children and youth up
29 to 18 years plus 365 days, who are residents of this state and covered by such insurance. This
30 coverage must at least equal the coverage and payment for prosthetic and orthotic devices provided

SB 177-FN - AS INTRODUCED
- Page 2 -

31 under federal laws and regulations for the aged and disabled pursuant to 42 United States Code,
32 Sections 1395k, 1395l and 1395m and 42 C.F.R. Sections 414.202, 414.210, 414.228 and 410.100 and
33 be no less favorable than the terms and conditions for the medical and surgical benefits in the policy.

34 Covered benefits shall be provided for:

35 I. A prosthetic or orthotic device determined by the enrollee's provider to be the most
36 appropriate model that adequately meets the medical needs of the enrollee;

37 II. In addition to coverage of a prosthetic device required by paragraph I, a prosthetic or
38 orthotic device determined by the enrollee's provider to be the most appropriate model that meets
39 the medical needs of the enrollee for purposes of performing physical activities, as applicable, such
40 as running, biking, and swimming, and to maximize the enrollee's upper limb function;

41 III. All materials and components necessary to use the device;

42 IV. Instruction to the enrollee on using the device; and

43 V. The repair or replacement of a prosthetic or orthotic device that is determined medically
44 necessary or is necessary for maximizing the enrollee's ability to ambulate, run, bike, and swim and
45 for maximizing upper limb function, as determined by the treating provider.

46 3 Health Services Corporations; Applicable Statutes. Amend RSA 420-A:2 to read as follows:

47 420-A:2 Applicable Statutes. Every health service corporation shall be governed by this chapter
48 and the relevant provisions of RSA 161-H, and shall be exempt from this title except for the
49 provisions of RSA 400-A:39, RSA 401-B, RSA 402-C, RSA 404-F, RSA 415-A, RSA 415-F, RSA 415:6,
50 II(4), RSA 415:6-g, RSA 415:6-k, RSA 415:6-m, RSA 415:6-o, RSA 415:6-r, RSA 415:6-t, RSA 415:6-u,
51 RSA 415:6-v, RSA 415:6-w, RSA 415:6-x, RSA 415:6-y, RSA 415:6-z, RSA 415:6-a1, **RSA 415:6-bb**,
52 RSA 415:18, V, RSA 415:18, XVI and XVII, RSA 415:18, VII-a, RSA 415:18-a, RSA 415:18-i, RSA
53 415:18-j, RSA 415:18-o, RSA 415:18-r, RSA 415:18-t, RSA 415:18-u, RSA 415:18-v, RSA 415:18-w,
54 RSA 415:18-y, RSA 415:18-z, RSA 415:18-aa, RSA 415:18-bb, RSA 415:18-cc, RSA 415:18-dd, RSA
55 415:18-ee, **RSA 415:18-ff**, RSA 415:22, RSA 417, RSA 417-E, RSA 420-J, and all applicable
56 provisions of title XXXVII wherein such corporations are specifically included. Every health service
57 corporation and its agents shall be subject to the fees prescribed for health service corporations
58 under RSA 400-A:29, VII.

59 4 Health Maintenance Organizations; Statutory Construction. Amend RSA 420-B:20, III to read
60 as follows:

61 III. The requirements of RSA 400-A:39, RSA 401-B, RSA 402-C, RSA 404-F, RSA 415:6-g,
62 RSA 415:6-m, RSA 415:6-o, RSA 415:6-r, RSA 415:6-t, RSA 415:6-u, RSA 415:6-v, RSA 415:6-w, RSA
63 415:6-x, RSA 415:6-y, RSA 415:6-z, RSA 415:6-a1, **RSA 415:6-bb**, RSA 415:18, VII-a, RSA 415:18,
64 XVI and XVII, RSA 415:18-i, RSA 415:18-j, RSA 415:18-r, RSA 415:18-t, RSA 415:18-u, RSA 415:18-
65 v, RSA 415:18-w, RSA 415:18-y, RSA 415:18-z, RSA 415:18-aa, RSA 415:18-bb, RSA 415:18-cc, RSA
66 415:18-dd, RSA 415:18-ee, **RSA 415:18-ff**, RSA 415-A, RSA 415-F, RSA 420-G, and RSA 420-J shall
67 apply to health maintenance organizations.

SB 177-FN - AS INTRODUCED

- Page 3 -

68 5 No Addition to State's Essential Health Benefits. The requirements of this act shall not
69 constitute an addition to the state's essential health benefits that requires defrayal of costs by the
70 state pursuant to 42 U.S.C. Section 18031(d)(3)(B).

71 6 Application. The requirements of this act shall apply to all policies, contracts, and certificates
72 executed, delivered, issued for delivery, continued or renewed in this state on or after the effective
73 date of this section. For the purposes of this act, all contracts are deemed to be renewed no later
74 than the next yearly anniversary of the contract date.

75 I. The provisions of this act are not intended to conflict with existing provisions of New
76 Hampshire law.

77 II. To the extent that this act conflicts with other state laws, those laws in conflict are
78 declared null and void.

79 7 Effective Date. This act shall take effect 60 days after its passage.

Appendix B: L Series CPT Codes for Prostheses & Orthotics Devices

Code	Short CPT Description
L0120	Cerv flexible non-adjustable
L0140	Cervical semi-rigid adjustab
L0150	Cerv semi-rig adj molded chn
L0174	Cerv col foam 2 piece w thor
L0180	Cer post col occ/man sup adj
L0454	TLSO flex prefab sacrococ-T9
L0456	TLSO flex prefab
L0486	TLSO rigidlined cust fab two
L0625	LO flexibl L1-below L5 pre
L0626	LO sag stays/panels pre-fab
L0627	LO sagitt rigid panel prefab
L0631	LSO sag-coro rigid frame pre
L0637	LSO sag-coronal panel prefab
L0638	LSO sag-coronal panel custom
L0639	LSO s/c shell/panel prefab
L0640	LSO s/c shell/panel custom
L0642	Lo sag ri an/pos pnl pre ots
L0648	Lso sag r an/pos pnl pre ots
L0650	Lso sc r ant/pos pnl pre ots
L0984	Protective body sock each
L0999	Add to spinal orthosis NOS
L1020	Kyphosis pad
L1040	Lumbar or lumbar rib pad
L1060	Thoracic pad
L1200	Furnsh initial orthosis only
L1210	Lateral thoracic extension
L1220	Anterior thoracic extension
L1240	Lumbar derotation pad
L1250	Anterior asis pad
L1260	Anterior thoracic derotation
L1270	Abdominal pad
L1280	Rib gusset (elastic) each
L1290	Lateral trochanteric pad
L1300	Body jacket mold to patient
L1499	Spinal orthosis NOS
L1620	Abduct hip flex pavlik harne
L1650	HO abduction hip adjustable
L1660	HO abduction static plastic
L1686	HO post-op hip abduction
L1810	Ko elastic with joints
L1812	Ko elastic w/joints pre ots

Code	Short CPT Description
L1820	Ko elas w/ condyle pads & jo
L1830	Ko immobilizer canvas longit
L1831	Knee orth pos locking joint
L1832	KO adj jnt pos rigid support
L1833	Ko adj jnt pos r sup pre ots
L1844	Ko w/adj jt rot cntrl molded
L1845	Ko w/ adj flex/ext rotat cus
L1846	Ko w adj flex/ext rotat mold
L1851	Ko single upright prefab ots
L1852	Ko double upright prefab ots
L1902	Afo ankle gauntlet
L1906	Afo multiligamentus ankle su
L1907	AFO supramalleolar custom
L1930	Afo plastic
L1940	Afo molded to patient plasti
L1945	Afo molded plas rig ant tib
L1960	Afo pos solid ank plastic mo
L1970	Afo plastic molded w/ankle j
L1971	AFO w/ankle joint, prefab
L2036	Kafo plas doub free knee mol
L2200	Limited ankle motion ea jnt
L2210	Dorsiflexion assist each joi
L2220	Dorsi & plantar flex ass/res
L2270	Varus/valgus strap padded/li
L2275	Plastic mod low ext pad/line
L2280	Molded inner boot
L2330	Lacer molded to patient mode
L2340	Pre-tibial shell molded to p
L2395	Offset knee joint heavy duty
L2397	Suspension sleeve lower ext
L2415	Knee joint cam lock each joi
L2425	Knee disc/dial lock/adj flex
L2430	Knee jnt ratchet lock ea jnt
L2627	Plastic mold recipro hip & c
L2755	Carbon graphite lamination
L2768	Ortho sidebar disconnect
L2780	Non-corrosive finish
L2795	Knee control full kneecap
L2810	Knee control condylar pad
L2820	Soft interface below knee se
L2830	Soft interface above knee se
L2840	Tibial length sock fx or equ
L2999	Lower extremity orthosis NOS
L3000	Ft insert ucb berkeley shell
L3010	Foot longitudinal arch suppo

Code	Short CPT Description
L3020	Foot longitud/metatarsal sup
L3030	Foot arch support remov prem
L3031	Foot lamin/prepreg composite
L3040	Ft arch suprt premold longit
L3050	Foot arch supp premold metat
L3060	Foot arch supp longitud/meta
L3150	Abduct rotation bar w/o shoe
L3170	Foot plastic heel stabilizer
L3202	Oxford w/ supinat/pronator c
L3216	Orthoped ladies shoes dpth i
L3260	Ambulatory surgical boot eac
L3265	Plastazote sandal each
L3300	Sho lift taper to metatarsal
L3310	Shoe lift elev heel/sole neo
L3400	Shoe metatarsal bar wedge ro
L3649	Orthopedic shoe modifica NOS
L3650	Shlder fig 8 abduct restrain
L3660	Abduct restrainer canvas&web
L3670	Acromio/clavicular canvas&we
L3675	Canvas vest SO
L3702	EO w/o joints CF
L3760	EO withjoint, Prefabricated
L3761	Eo, adj lock joint prefab ot
L3762	Rigid EO wo joints
L3764	EWHO w/joint(s) CF
L3806	WHFO w/joint(s) custom fab
L3807	WHFO,no joint, prefabricated
L3808	WHFO, rigid w/o joints
L3809	Whfo w/o joints pre ots
L3905	WHO w/nontorsion jnt(s) CF
L3906	WHO w/o joints CF
L3908	Wrist cock-up non-molded
L3913	HFO w/o joints CF
L3917	Prefab metacarpl fx orthosis
L3919	HO w/o joints CF
L3923	HFO w/o joints PF
L3924	Oppenheimer
L3925	FO pip/dip with joint/spring
L3927	FO pip/dip w/o joint/spring
L3931	WHFO nontorsion joint prefab
L3933	FO w/o joints CF
L3960	Sewho airplan desig abdu pos
L3980	Upp ext fx orthosis humeral
L3982	Upper ext fx orthosis rad/ul
L3984	Upper ext fx orthosis wrist

Code	Short CPT Description
L4002	Replace strap, any orthosis
L4205	Ortho dvc repair per 15 min
L4350	Ankle control orthosi prefab
L4360	Pneumati walking boot prefab
L4361	Pneuma/vac walk boot pre ots
L4370	Pneumatic full leg splint
L4386	Non-pneum walk boot prefab
L4387	Non-pneum walk boot pre ots
L4396	Static AFO
L4397	Static or dynami afo pre ots
L5020	Tibial tubercle hgt w/ toe f
L5618	Test socket symes
L5634	Symes type poster opening so
L5637	Below knee total contact
L5661	Multi-durometer symes
L5685	Below knee sus/seal sleeve
L5972	Flexible keel foot
L6110	Elbow mold sock suspension t
L6680	Test sock wrist disart/bel e
L6687	Frame typ socket bel elbow/w
L7510	Prosthetic device repair rep
L7520	Repair prosthesis per 15 min
L8420	Prosthetic sock multi ply BK
L8435	Pros sock multi ply upper lm
L8501	Tracheostomy speaking valve
L8613	Ossicular implant
L8615	Coch implant headset replace
L8616	Coch implant microphone repl
L8617	Coch implant trans coil repl
L8619	Coch imp ext proc/contr rplc
L8624	Lith ion batt CID, ear level
L8692	Non-osseointegrated snd proc
L8699	Prosthetic implant NOS
L9900	O&P supply/accessory/service

End Notes

- 1 Harvard Pilgrim Payment Policies, “Orthotic and Prosthetic Devices,” accessed 9/13/2023, <https://www.harvardpilgrim.org/provider/wp-content/uploads/sites/7/2020/07/H-4-Orthotic-Prosthetic-PM.pdf>
- 2 Centene Ambetter Clinical Policy: Durable Medical Equipment and Orthotics and Prosthetics Guidelines, <https://ambetter.homestatehealth.com/content/dam/centene/home-state-health/policies/clinical-policies/CP.MP.107%20DME.pdf>
- 3 Cigna Medical Coverage Policy for Orthotic Devices and Shoes, https://static.cigna.com/assets/chcp/pdf/coveragePolicies/medical/mm_0543_coveragepositioncriteria_orthotic_devices_shoes.pdf
- 4 See Harvard Pilgrim Payment Policies, Centene Ambetter and Cigna coverage policies.
- 5 “Your Costs in Original Medicare,” <https://www.medicare.gov/coverage/prosthetic-devices>
- 6 See Harvard Pilgrim Payment Policies, Centene Ambetter and Cigna coverage policies.
- 7 See Harvard Pilgrim Payment Policies, Centene Ambetter and Cigna coverage policies.
- 8 Bowker HK, Michael JW (eds): Atlas of Limb Prosthetics: Surgical, Prosthetic, and Rehabilitation Principles. Rosemont, IL, American Academy of Orthopedic Surgeons, edition 2, 1992, reprinted 2002. <https://www.oandplibrary.org/alp/chap06-01.asp#:~:text=Body%2Dpowered%20components%20have%20been,remote%20from%20the%20amputation%20site.>
- 9 Carey SL, Lura DJ, Highsmith MJ. Differences in myoelectric and body-powered upper-limb prostheses: Systematic literature review. *J Rehabil Res Dev.* 2015;52(3):247–62. <http://dx.doi.org/10.1682/JRRD.2014.08.0192>
- 10 Egermann M, Kasten P, Thomsen M. Myoelectric hand prostheses in very young children. *Int Orthop.* 2009 Aug;33(4):1101-5. doi: 10.1007/s00264-008-0615-y. Epub 2008 Jul 18. PMID: 18636257; PMCID: PMC2898999.
- 11 Carey SL, Lura DJ, Highsmith MJ; CP; FAAOP. Differences in myoelectric and body-powered upper-limb prostheses: Systematic literature review. *J Rehabil Res Dev.* 2015;52(3):247-62. doi: 10.1682/JRRD.2014.08.0192. PMID: 26230500.
- 12 See Harvard Pilgrim Payment Policies, Centene Ambetter and Cigna coverage policies.
- 13 Hall, M., Wustrack, R., Cummings, D., Welling Jr., R., Kaleta, M., Koenig Jr., K., Laine, J., & Morgan, S. (2021). Innovations in Pediatric Prosthetics: Current Concept Review. *Journal of the Pediatric Orthopaedic Society of North America*, 3(1). <https://doi.org/10.55275/JPOSNA-2021-221>
- 14 McLaughlin, S. (2019). Recreation is a Right Not a Write-off, University of New England, <https://legislature.maine.gov/testimony/resources/HCIF520210408Simpson132621235796898045.pdf>
- 15 Mai CT, Isenburg JL, Canfield MA, Meyer RE, Correa A, Alverson CJ, Lupo PJ, Riehle-Colarusso T, Cho SJ, Aggarwal D, Kirby RS. National population-based estimates for major birth defects, 2010–2014. *Birth Defects Research.* 2019; 111(18): 1420-1435.
- 16 See Hall, M et al .citing Ziegler-Graham K, MacKenzie EJ, Ephraim PL, Trivison TG, Brookmeyer R. Estimating the prevalence of limb loss in the United States: 2005 to 2050. *Arch Phys Med Rehabil.* 2008;89(3):422-9.
- 17 American Orthotic & Prosthetic Association, above and Smith, D. & Campbell, K. (2009). Prostheses for Children with Limb Differences. Amputee Coalition. <https://www.amputee-coalition.org/resources/prostheses-for-children/>
- 18 Arkansas Act 805 of 2023, <https://www.arkleg.state.ar.us/Bills/Detail?id=hb1252&ddBienniumSession=2023%2F2023R>
- 19 Colorado Legislation 2023 <https://leg.colorado.gov/bills/hb23-1136>
- 20 New Mexico <https://www.nmlegis.gov/Sessions/23%20Regular/final/HB0131.pdf>
- 21 Kerfeld C, Jirikowic T, Allyn KJ, Maitland ME. Participation in active play of children who use lower extremity prostheses: An exploratory questionnaire. *Prosthet Orthot Int.* 2018 Aug;42(4):437-445. doi: 10.1177/0309364618767139. Epub 2018 Apr 6. PMID: 29623809.

- 22 Paul S. Carbone, Peter J. Smith, Charron Lewis, Claire LeBlanc; COUNCIL ON CHILDREN WITH DISABILITIES, COUNCIL ON SPORTS MEDICINE AND FITNESS, Promoting the Participation of Children and Adolescents With Disabilities in Sports, Recreation, and Physical Activity. *Pediatrics* December 2021; 148 (6): e2021054664. 10.1542/peds.2021-054664
- 23 Sothorn, M., Loftin, M., Suskind, R. et al. The health benefits of physical activity in children and adolescents: implications for chronic disease prevention. *Eur J Pediatr* 158, 271–274 (1999). <https://doi.org/10.1007/s004310051070>
- 24 Janssen, I., LeBlanc, A.G. Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *Int J Behav Nutr Phys Act* 7, 40 (2010). <https://doi.org/10.1186/1479-5868-7-40>
- 25 Pate RR, Hillman CH, Janz KF, Katzmarzyk PT, Powell KE, Torres A, Whitt-Glover MC; 2018 PHYSICAL ACTIVITY GUIDELINES ADVISORY COMMITTEE*. Physical Activity and Health in Children Younger than 6 Years: A Systematic Review. *Med Sci Sports Exerc.* 2019 Jun;51(6):1282-1291. doi: 10.1249/MSS.0000000000001940. PMID: 31095085; PMCID: PMC6527328
- 26 Mckenzie G, Willis C, Shields N. Barriers and facilitators of physical activity participation for young people and adults with childhood-onset physical disability: a mixed methods systematic review. *Dev Med Child Neurol.* 2021 Aug;63(8):914-924. doi: 10.1111/dmcn.14830. Epub 2021 Feb 9. PMID: 33559889.
- 27 Email communication with American Orthotic and Prosthetic Association, 8/10/2023
- 28 <https://www.harvardpilgrim.org/provider/wp-content/uploads/sites/7/2020/07/H-4-Orthotic-Prosthetic-PM.pdf>
- 29 https://static.cigna.com/assets/chcp/pdf/coveragePolicies/medical/mm_0536_coveragepositioncriteria_prosthetic_devices.pdf
- 30 Hill, M., Healy, A. & Chockalingam, N. Effectiveness of therapeutic footwear for children: A systematic review. *J Foot Ankle Res* 13, 23 (2020). <https://doi.org/10.1186/s13047-020-00390-3>
- 31 Powell M, Seid M, Szer IS. Efficacy of custom foot orthotics in improving pain and functional status in children with juvenile idiopathic arthritis: a randomized trial. *J Rheumatol.* 2005 May;32(5):943-50. PMID: 15868634.
- 32 Wenz W, Schweinfurth M, Wenz D. Rehabilitation and orthotic management of congenital and acquired meromelia in the lower limbs of children. *Pediatr Rehabil.* 1998 Jul-Sep;2(3):123-8. doi: 10.3109/17518429809057423. PMID: 9864745.
- 33 Orlando JM, Li B, Bodt B, Lobo MA. Users' Perceptions About Lower Extremity Orthotic Devices: A Systematic Review. *Arch Phys Med Rehabil.* 2023 Apr;104(4):645-655. doi: 10.1016/j.apmr.2022.10.010. Epub 2022 Nov 15. PMID: 36395874.
- 34 See Hill, M., Healy, A. & Chockalingam, N.
- 35 <https://www.nih.gov/news-events/news-releases/nih-funded-research-lays-groundwork-next-generation-prosthetics>
- 36 Goldstein T, Oreste A, Hutnick G, Chory A, Chehata V, Seldin J, Gallo MD, Bloom O. A Pilot Study Testing a Novel 3D Printed Amphibious Lower Limb Prosthesis in a Recreational Pool Setting. *PM R.* 2020 Aug;12(8):783-793. doi: 10.1002/pmrj.12293. Epub 2020 Jan 18. PMID: 31749329; PMCID: PMC7496828.
- 37 <https://mae.ucf.edu/limbitless-solutions-how-charity-is-helping-kids-get-trendy-bionic-3d-printed-prosthetics-for-free/>
- 38 Hall, Michelle, et. All, Essentials of Pediatric Prosthetics, Journal of the Pediatric Orthopaedic Society of North America, file:///C:/Users/lgreen/Downloads/ldushane,+JPOSNA+ARTICLE+168+--+FINAL%20(2).pdf
- 39 Wong MD, Andersen R, Sherbourne CD, Hays RD, Shapiro MF. Effects of cost sharing on care seeking and health status: results from the Medical Outcomes Study. *Am J Public Health.* 2001 Nov;91(11):1889-94. doi: 10.2105/ajph.91.11.1889. PMID: 11684621; PMCID: PMC1446896.
- 40 Miller TA, Paul R, Forthofer M, Wurdeman SR. Impact of Time to Receipt of Prosthesis on Total Healthcare Costs 12 Months Postamputation. *Am J Phys Med Rehabil.* 2020 Nov;99(11):1026-1031. doi: 10.1097/PHM.0000000000001473. PMID: 33060371; PMCID: PMC7547875.
- 41 Sothorn, M., Loftin, M., Suskind, R. et al. The health benefits of physical activity in children and adolescents: implications for chronic disease prevention. *Eur J Pediatr* 158, 271–274 (1999). <https://doi.org/10.1007/s004310051070>
- 42 Janssen, I., LeBlanc, A.G. Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *Int J Behav Nutr Phys Act* 7, 40 (2010). <https://doi.org/10.1186/1479-5868-7-40>

43 Pate RR, Hillman CH, Janz KF, Katzmarzyk PT, Powell KE, Torres A, Whitt-Glover MC; 2018 PHYSICAL ACTIVITY GUIDELINES ADVISORY COMMITTEE*. Physical Activity and Health in Children Younger than 6 Years: A Systematic Review. *Med Sci Sports Exerc.* 2019 Jun;51(6):1282-1291. doi: 10.1249/MSS.0000000000001940. PMID: 31095085; PMCID: PMC6527328.

44 See Miller TA, Paul R, Forthofer M, Wurdeman SR.