

QALS Consumables and Supplies

Medical Aids Subsidy Scheme

14 August 2026

- Understand funding guidelines around consumables and supplies
- Be aware of a range of
 - Liner, sheath and sock options available
 - donning aids available
 - skin care products available
 - cleaning products available
 - other consumables or supplies (e.g., waterproof covers) available

Annual supply limits

Category	Quantity
Cosmetic gloves and foot shell covers	2
Stockings	18-24
Donning aid	1
Foam cover	1
Gel or silicon liners	2-3
Lotions/cream/spray	8
Sheaths or gaiters	6-10
Shower/wet covers	2
Socks; cotton or wool	10-24
Socks; gel	6-8
Stump shrinkers	2
Suspension sleeves	3

Donning aids



**Ossur kit
shoehorn**

**OPC Easyproth
Donning Sleeve**



Doff'n'donner



**Ottobock Donning
Sheath Easyfit Leg**

When a donning device helps (learnings from the compression literature)¹

- When there is difficult donning & doffing
- To reduce burden on carers
- Increase speed and ease of donning
- At times when it is more difficult (e.g., after showering)



*“But I’m a little annoyed.
That I suddenly hear,
thanks to you, that there
are people who
can help you. Who could
have the tip of the
century? And that all these
years, I’m 71, I’ve had
these shitty things in my
closet since I was 12,
nobody ever told me that.
That’s a shame.”*

Prosthesis Donning & Doffing Questionnaire¹

Contracture (Flex/Ext/Abd/Add)..... deg

Hand Dexterity¹:

☐ Cylindrical grasp ☐ Tip grasp ☐ Spherical grasp ☐ Hook grasp ☐ Lateral grasp

¹Please see Appendix (2) at the end of this questionnaire for reference.

Donning and doffing questions

1. Time needed for donning the prosthesis (socket and soft liner) seconds
2. Time needed for doffing the prosthesis (socket and soft liner) seconds
3. Can the amputee don/doff during night/in dark places? ☐ Yes ☐ No
4. Does the amputee use any special devices to facilitate donning the prosthesis? ☐ Yes ☐ No
5. How many times does the amputee need to don and doff the prosthesis per day? times
6. Amputee's satisfaction with donning process

|-----|

Extremely Dissatisfied Extremely Satisfied

7. Amputee's satisfaction with doffing process

|-----|

Extremely Dissatisfied Extremely Satisfied

8. Please share with us anything else about donning and doffing your prosthesis that you think would be helpful for us to know.

- Developed and tested with 50 TT amputees
- Good internal consistency ($\alpha = 0.7$)
- Good test-retest reliability ($\alpha > 0.733$)

Lotions, gels, creams and sprays

Brand	Product	Purpose	Active ingredients
Ossur	Clean & Simple Spray	Lubricant	Unknown
Ottobock	Derma Clean	Skin cleanser	Aqua, Sodium Myreth Sulfate, Decyl Glucoside, PEG-7 Glyceryl Cocoate, Isopropyl Alcohol, Cocamidopropyl Betaine, Chlorhexidine Digluconate, Citric Acid, Dehydroacetic Acid, Benzoic Acid, Phenoxethanol, Cetrimonium Bromide, Parfum, Ethylparaben, Methylparaben, Propylparaben, Butylparaben, Isobutylparaben, Limonene.
Ottobock	Derma Prevent	Anti-chafe, barrier	Cyclomethicone, Dimethicone, Cyclodextrin, C12-13 Alkyl Lactate, Farnesol, Parfum, Limonene, Linalool, Hexyl Cinnamic Aldehyde, Butylphenyl Methylpropional, Citronellol, Citral, Geraniol, Coumarin
Ottobock	Derma Repair	Moisturiser	Aqua, Glycerin, Panthenol, Cetearyl Alcohol, Decyl Oleate, Octyl Stearate, Orbigyna Oleifera, PEG-40 Hydrogenated Castor Oil, Triticum Vulgare, Hippophae Rhamnoides, Tocopherol, Lecithin, Tocopheryl Acetate, Allantoin, Glyceryl Stearate, Sodium Hyaluronate, Hydrogenated Palm Glycerides Citrate, Ascorbyl Palmitate, C13-14 Isoparaffin, Polycaprylamide, Chlorhexidine Digluconate, Laureth-7, Parfum, Cetrimonium Bromide, Phenoxethanol, Acrylates/C10-30 Alkyl Acrylate Crosspolymer, Butylparaben, Ethylparaben, Isobutylparaben, Methylparaben, Propylparaben, Sodium Hydroxide, Limonene, Linalool, Hexyl Cinnamic Aldehyde
Ottobock	Donning spray for SIL Liner & Axonskin	Lubricant	Isopropyl Alcohol, Water
Ottobock	Lubricant	Lubricant	Unknown
Ottobock	Procomfort gel	Lubricant	Unknown
Ottobock	Special cleaner for Prosthetic gloves	Prosthetic cleanser	1-Methoxy-2-propanol, Ethanol, 2-(2-Butoxyethoxy)ethanol, 1-Propoxypropan-2-ol, Benzenesulfonic acid, C10-13-alkyl derivs., compds. with triethanolamine, Butylglycolate, Dodecan-1-ol, ethoxylated (2-5 EO)
OPC Health	ALPS prosthetic anti-perspirant	Anti-perspirant	Aluminium chlorohydrate, water
OPC Health	ALPS prosthetic ointment	Anti-chafe, barrier	Vitamin A, Vitamin D, white petrolatum, yellow petrolatum
OPC Health	ALPS skin lotion	Anti-chafe, barrier	Cyclomethicone, Dimethicone
OPC Health	Vitalfit liquid to powder	Anti-chafe, barrier	Unknown
OPC Health	Vitalfit daily cleanser	Skin cleanser	Unknown
OPC Health	Vitalfit day moisturizer	Moisturiser	Unknown
OPC Health	Vitalfit night moisturizer	Moisturiser	Unknown

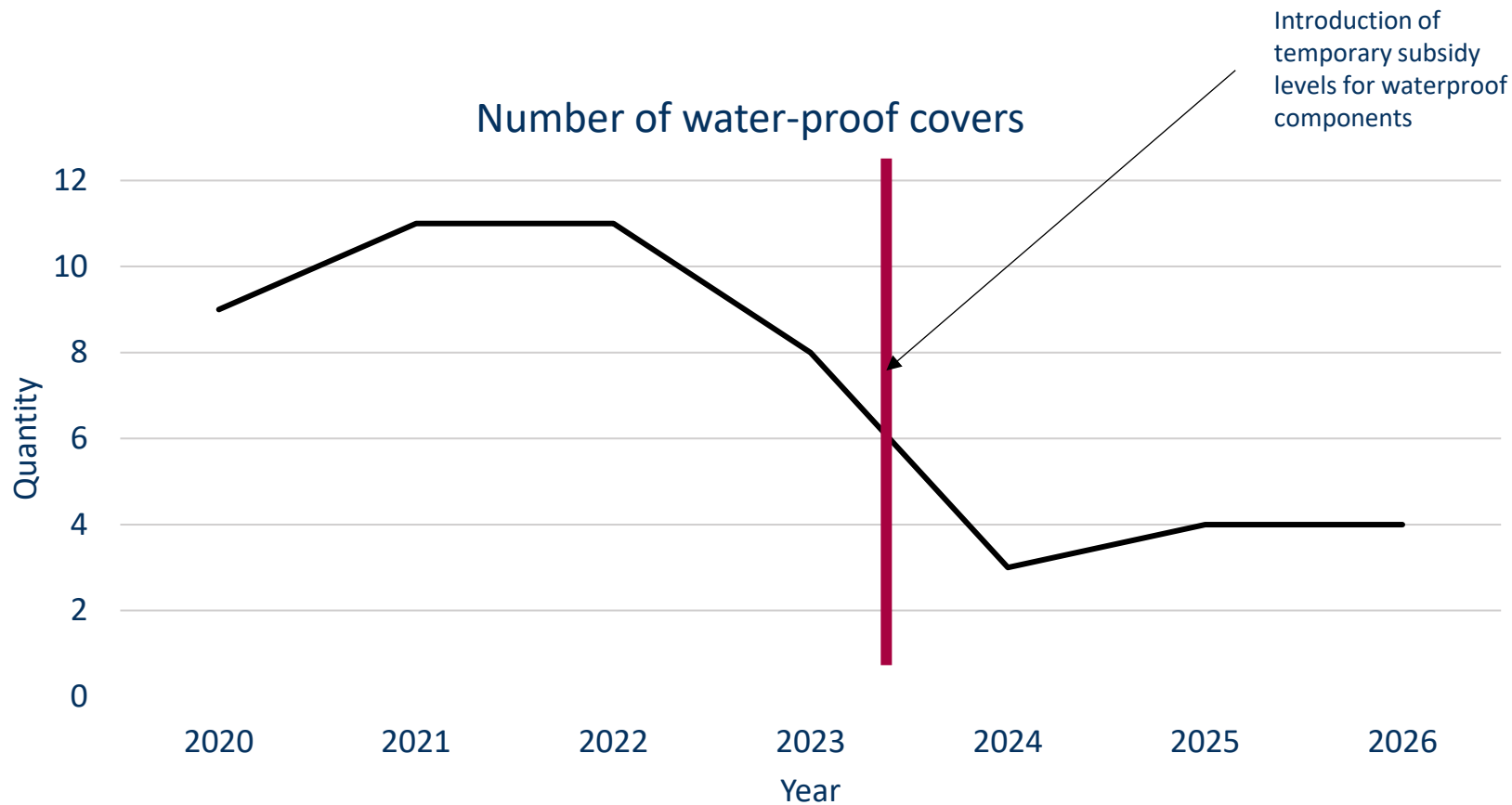
Literature review

- Review of all articles mentioning SOA lotions, gels, creams & spray
- Findings: Multiple (8) foreign language theses & articles
- Maximum level of evidence: opinion
- Take home message: There is insufficient evidence to recommend any product over another

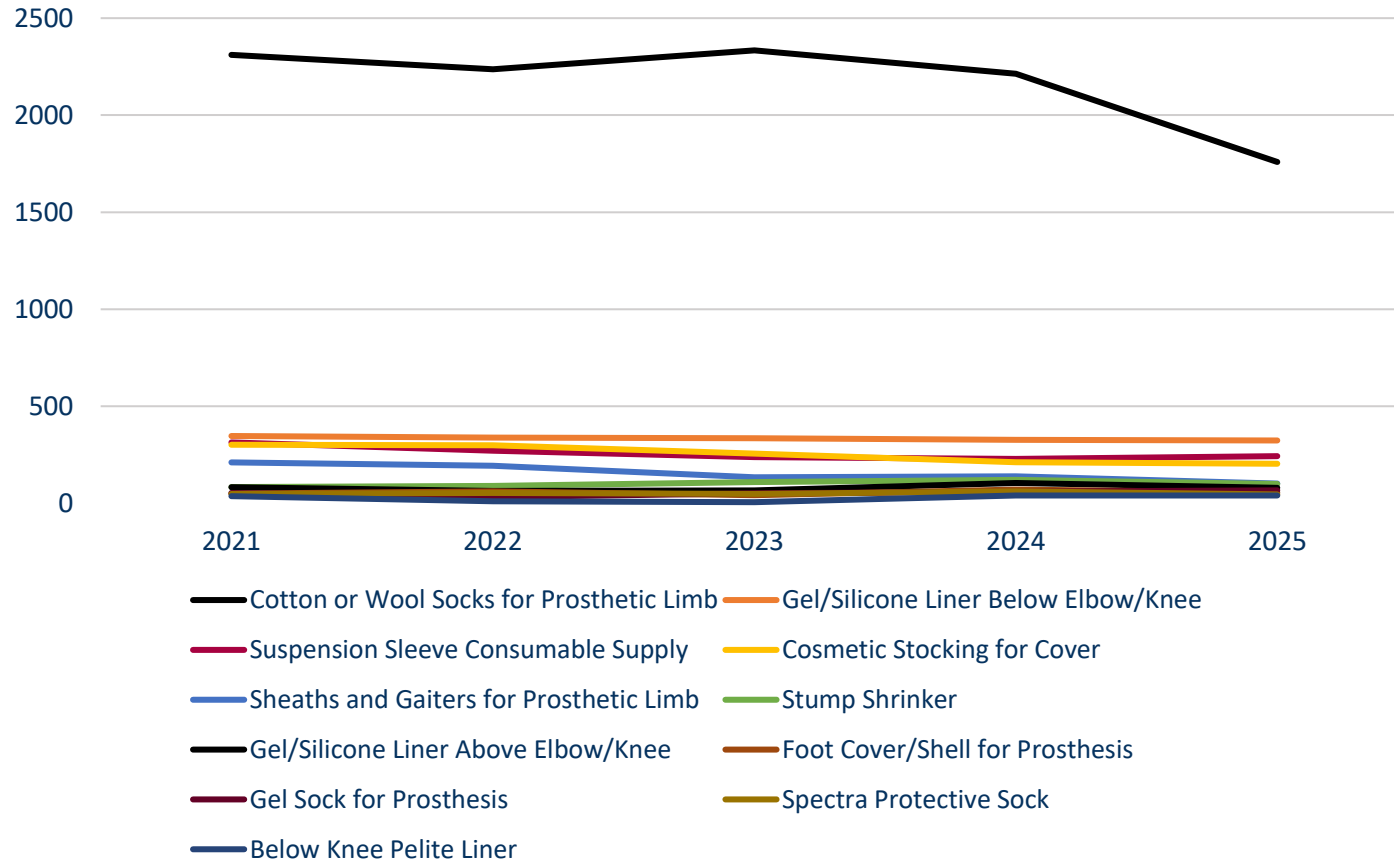
Waterproof covers

- Massons shower cover (XS, S, M, L, XL)





Liners, socks, sheaths, gaiters, shrinkers, stockings



Socks (Law Comfort)



Cotton



Pin-hole



Coolmax® EcoMade yarn with silver

- Thickness (0.7-3.3mm)
- Fabrics
 - Cotton (including mercerised & terry options)
 - Cotton / nylon
 - Coolmax® and Coolmax® EcoMade
 - With / without silver
- With / without vulcanised hole
- Australian-made

Socks (Massons)

- Thickness (1-3 ply)
- Fabrics
 - Wool
 - Cool-max® and Softwick™ Coolmax®
 - With / without silver
- With / without vulcanised hole
- Specific socks
 - Ultra-fit filler sock (cotton/Lycra, thin, highly conformable)
 - Volume control spacer sock (terry-lined sock)
 - Valor stump sock (hypoallergenic for solvent allergies)
 - Comfort Regal™ (acrylic/Lyca, conformable)
 - Comforge™ (cotton/nylon/gel)
 - Super shear™ gel liner (conformable)



Volume spacer sock

Socks (other suppliers)

- Ottobock
 - Cotton
 - Terry
 - Nylon
 - Gel
- Ossur
 - Branded socks (e.g., Iceross®, Truper, Soleus)
- OPC Health
 - Wool with silver
 - Gel

Fabric effects

1. Wang, T., Zuo, Z., Xie, J., et al. (2022). A novel instrument for testing the frictional properties of fabric surfaces. *Fibers & Polymers*, 23, 2340-2350.
2. Chen, R., Ye, J., Zhang, W., et al. (2021). Relationship between the real contact behaviour and tribological characteristics of cotton fabric. *Friction*, 9, 1050-1060.
3. Nguyen, T.A., Nguyen, T.H., Dinh, T.H.L., & Tran, B.N. (2024). Evaluating static and kinetic friction coefficients of fabric through experimental model. Paper presented at 9th International Conference on Applying New Technology in Green Buildings.
4. Chingova, R., Taneva, L., & Kapanyk, U. (2019). Experimental study on the friction characteristics of cotton fabrics with cloth twill 3/1 before and after finishing. *Proceedings on Engineering Sciences*, 1(1), 413-417.
5. Suaad, H., Mohamed, M.K., & Ali, W.Y. (2022). Reducing the electrostatic discharge generated from the contact and separation as well as sliding of polymeric textiles on cotton. *The Egyptian Society of Tribology*, 19(4), 54-62.
6. McQueen, R. H., & Vaezafshar, S. (2019) Odor in textiles: A review of evaluation methods, fabric characteristics, and odor control technologies. *Textile Research Journal*, 90(9-10), 1157-1173.
7. Derler, S., Schrader, U., & Gerhardt, L-C. (2007). Tribology of human skin and mechanical skin equivalents in contact with textiles. *Wear*, 263, 7-12, 1112-1116.
8. Kim, H.A., (2021). Water/moisture vapor permeabilities and thermal wear comfort of the Coolmax®/bamboo/Tencel included PET and PP composite yarns and their woven fabrics. *The Journal of the Textile Institute*, 112(12), 1940-1953.
9. Ryberg, K., Goossens, A., Isaksson, ., et al. (2009). Is contact allergy to disperse dyes and related substances associated with textile dermatitis? *British Journal of Dermatology*, 160(1), 107-115.

Cotton

- Friction coefficient highly variable (avg ~ 0.23)¹ with load, speed, pressure, treatment, and moisture^{2,3,4}
- Terry: increased absorbency, soft, increased friction
- Mercerised: decreased friction
- Hypoallergenic (allergies are more common with synthetic fibre additives)⁹

Cotton / nylon

- Lower friction coefficient with increasing nylon content⁵
- May become odorous over time (synthetic fibres more odorous than natural fibres)⁶

Coolmax®

- Lower friction coefficient
- Increased moisture wicking & drying rate (about 1 third faster compared with standard PET yarn⁸), but low thermal conductivity
- EcoMade (made from 100% recycled PET bottles)

Wool

- Higher friction coefficient⁷, lowest odour⁶, but may hold some bacteria longer

Silver

- Anti-microbial, anti-odour effect⁶

Spectra socks

- Used to protect prosthetic parts from rubbing wear-and-tear (stronger than Kevlar)
- Suppliers
 - Ottobock
 - Queensland Prosthetics
 - Massons



Liners

Materials

- Silicone
- Pelite
- Elastomers

Construction

- Off-the-shelf
- Customised

Suspension options

- Mechanical (e.g., locking pin)
- Pressure (e.g., pump, ribs)



Pelite liner (left) and EVA roll-on AERO liner (right)²

Purpose¹

- Reduce shear
- Protect tissues
- Suspension
- Thermoregulation
- Accommodate soft tissue changes



Seal-In X5 liner (left) and Iceross Dermo liner (right)³

1. Yang, X., Zhao, R., Solav, D., et al. (2023). Material, design, and fabrication of custom prosthetic liners for lower-extremity amputees: a review. *Medicine in Novel Technology and Devices*, 17, 100197.
2. Miyata, Y., Sasaki, K., Guerra, G., et al. (2024). The AERO prosthetic liner: socket pressure distribution, comfort and material composition. *Annals of Medicine*, 56(1), 2380798.
3. Ali, S., Osman, N.A.A., Arifin, N. et al. (2014). Comparative study between Dermo, Pelite, and Seal-In X5 liners: effect on patient's satisfaction and perceived problems. *The Scientific World Journal*, 769810.

Table 1

Subjective and objective methods for liner evaluation.

Author	Aspect	Method	Subject	#Participants	Results
Ali [150]	Interface Pressure Comfort	Pressure sensor arrays PEQ	Dermo liner vs Seal-in X5	9	Peak mean pressure with Seal-in X5 is higher Comfort with Dermo is higher
Cagle [48] Osman [63]	Interface Pressure Pistoning Comfort	FEA Digital photo PEQ	6 mm uniform liner Dermo liner vs Looped liner	– 10	Simulation results agree with literature's reports Pistoning of dermo liner is lower than looped liner Looped liner has less distal traction
Gholizadeh [23]	Pistoning	Digital photo	Dermo liner vs Seal-in X5	6	Pistoning decreased by 71% when using Seal-in X5
Williams [151]	Heat dissipation	Thermistors	Scaled down liner	–	Passive solutions are not enough, active methods should be explored
Lenz [152]	Deformation	Motion capture system (Vicon) and digital caliper	Marked gel liner with clear socket	–	Proposed method can capture the deformation of gel liner
Henrikson [153]	Radial displacement	Inductive sensing system	Ferrous elastomeric liner	4	Sensors provided insight into limb-socket positions and displacements

Note: Table 1 presents brief information on some typical liner evaluation tests. Abbreviation: PEQ- Prosthetic Evaluation Questionnaire, FEA-Finite Element Analysis.

Shrinkers

- Ossur Comfort SCS
- OPC 4-way Knit-rite
- OPC AK/BK
- OPC AK/BK Silicone



Ossur Comfort SCS



OPC 4-way Knit-rite

Sheaths/gaiters

- Ottobock gaitor sleeve (protect liner from socket brim)
- Ossur ICEx interface sleeve (silicon, maintains suction, protects from socket brim)
- OPC Brim sheath with glidewear (protects from socket brim)
- OPC ALPS skin reliever (protects from shear and friction)
- OPC Daw sheath (nylon, protects from friction)
- OPC Knit-rite sheath (protects from friction)
- OPC Silosheath
- OPC Uniprox sheath



Covers



Dream Skin
(with / without sandal toe)



Skinergy
(with / without sandal toe)



Foam

Embodiment of the
prosthesis user

Prosthesis as
an extension
of the user

Prosthesis as
a tool

Passing

Clothing

Pride

Normalcy

Not having to explain

Person first

Being unable to hide my gait

Skinergy colours



Dream Skin colours

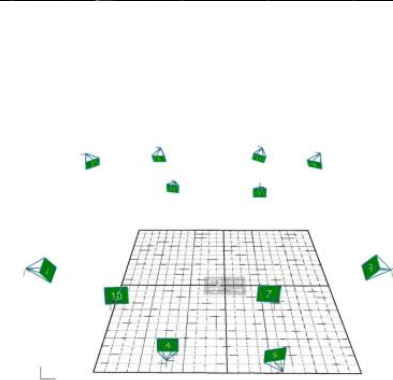
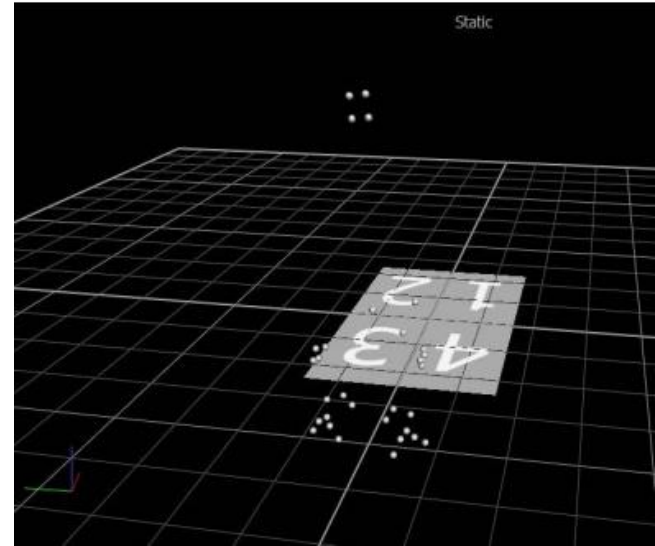
Article review: Cosmetic covers & gait

Design: Biomechanical gait analysis using motion capture and force plates with 6 TF amputees – with/without old/new foam covers with/without stockings.

Quality: Emerging

Key take home messages:

- Variability in effects between participants.
- Generally, knee flexion range was higher with bare prosthesis
- Generally, velocity, stride length and knee flexion was reduced with new covers



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MASS-Education@health.qld.gov.au