



Image courtesy of Ottobock

## Clinical Specialties in Orthotics and Prosthetics

# Cosmetic prostheses for people with limb loss

## What is a cosmetic prosthesis?

- A prosthesis (plural - prostheses) is a replacement body part.
- In medicine and health care, this can refer to external prostheses that replace limbs, hands and feet; facial or breast prostheses; or internal prostheses such as joint replacements.
- Cosmetic prostheses are external prostheses where the primary function is to provide a life-like representation of a lost body part, often without any functional role (such as walking). Sometimes this type of prosthesis is called a passive prosthesis.
- If the primary purpose of the prosthesis is to replicate some function, the prosthesis is instead called a functional prosthesis.

## Who might benefit from a cosmetic prosthesis?

People who have limb or facial amputations due to trauma, illness or from birth, often wear prostheses. There are many reasons why a person might benefit from a cosmetic prosthesis:

- A person might have a limb loss that causes minimal loss of function. For example, the loss of part of a finger or toe.
- A person might not be able to use a functional prosthesis. For example, an amputee who doesn't have sufficient strength, dexterity or endurance to walk with a prosthesis but who wishes to restore the appearance of body symmetry.
- A person may use a functional prosthesis for some occasions and cosmetic prosthesis for others. For example, using a myoelectric bionic hand/arm prosthesis at work and a high definition cosmetic passive arm for social situations.
- A person who has had an amputation of the maxillofacial region may use a cosmetic prosthesis to restore their pre-amputation appearance.

## What are the different types of cosmetic prostheses?

A common cosmetic prosthesis for a person with lower-limb loss is one constructed primarily of foam that is shaped to fit under clothes while a person sits in their wheel chair. The prosthesis will

have an internal structure to hold it in place but is not designed to be used for standing or walking.

A person with upper-limb loss might use a prosthetic hand that does not move or function (called a passive hand) with a cosmetic glove. These are available in a variety of types from those that are commercially manufactured and available in a range of sizes and skin tones, to more advanced products including custom-made covers of high definition silicone. To produce this custom product, a cast of the opposite limb is used as a model to match the person's anatomical size, shape and colour, including features such as freckles, veins, skin pigmentation and hair.

People missing part of their fingers, toes, hand or foot may benefit from a silicone prosthesis. These can be self-suspending, depending on the shape of the residual body parts or can be glued in place.

A person with a facial amputation may benefit from a high definition silicone prosthesis that can be suspended with glues, osseointegrated bar/magnets or suspended on glasses.

## Can a cosmetic prosthesis still be useful?

Sometimes cosmetic prostheses are called 'passive' prostheses, but this can be misleading as cosmetic prostheses can be very useful. For example, a cosmetic arm can help to stabilise a piece of paper for writing, can steady various kitchen utensils or tools, or can help to carry an item that needs two arms to steady it.

## Cosmetic covers for limb prostheses

There are a range of cosmetic options also available to people who use functional limb prostheses:

- Foam covers are shaped to match the shape of the remaining limb and are usually covered with stockings. This is the most common type of cosmetic cover for lower-limb prostheses.
- Pre-fabricated cosmetic covers made from silicone or vinyl can be fitted over the foam cover. These are available in different skin tones and include more realistic features.
- Custom-made silicone covers which come at a higher cost but provide a much more lifelike finish.



Image courtesy of OPC Health

## Orthotist/Prosthetists – Supporting the Australian community

- 3D printed prosthetic covers are available in a wide variety of custom colours and artwork. These covers are individually designed and are not intended to replicate the look of the missing limb.

The cost of different cosmetic covers varies widely. Usually the most basic types are covered by external funding schemes. Not all prosthetic covers are suitable for all people, the best choice depends on factors including residual limb shape, personal preference, the type of prosthesis and the activities that the prosthesis will be used for.

### Who provides cosmetic prostheses for people with limb loss?

Limb prostheses are provided by prosthetists. This includes prostheses for the hands, feet, fingers and toes. In Australia, prosthetists are the only specialist tertiary qualified allied health practitioners who prescribe prostheses for people with limb loss. Prosthetists are trained at either a Bachelor or Master's level and may work autonomously or within the multidisciplinary team.

If you need to access the services of a prosthetist, they will:

- Perform a thorough clinical assessment
- Discuss the most suitable prosthetic options to meet your goals and requirements and support you in decision making
- Complete the digitisation/measurement/casting process and oversee the manufacturing or procurement of the prosthesis
- Provide clinical services associated with fitting, education of use, regular reviews for functional effectiveness and adjustment for fit, as well as liaising with other relevant members of the healthcare team

Facial and breast prostheses can be provided by specially trained prosthetists, however they are most frequently provided by a facial prosthetist or anaplastologist (also known as a maxillofacial prosthetist or maxillofacial prosthodontist). A prosthetist can

achieve competency and certification in anaplastology through the International Anaplastology Association. Breast prostheses may also be provided by some lingerie stores, department stores or specialty stockists.

### How do I access prosthetic treatment?

If you require the services of a prosthetist you may be referred by your specialist clinic, physiotherapist, GP or other health professional to one of our members or you may contact them directly yourself.

The Australian Orthotic Prosthetic Association (AOPA) is the peak body regulating orthotists/prosthetists in Australia. Membership is conditional upon tertiary training at University level and meeting minimum professional competencies. Members are required to abide by professional standards including a code of ethics and continuing professional development.

Certified Orthotist/Prosthetists (c-OP AOPA) can be located using the 'Find a practitioner' search function on the AOPA website ([www.aopa.org.au](http://www.aopa.org.au)). Prosthetists working in both the public and private settings are listed.



*Disclaimer – This fact sheet does not replace clinical advice. If you require orthotic services AOPA recommends speaking to your practitioner. This fact sheet was developed based on interpretation of current evidence as of May 2018. References available on request.*