

# Orthoses

- **Orthotics are prescribed supportive devices fitted to your body to enable you to participate safely or efficiently in your chosen activities**
- **An orthosis has one or more purposes and is usually made of different materials**
- **Orthotists (in allied health) provide advice and manufacture your orthosis**

## What are Orthoses?

Orthoses are often called orthotics, splints, braces or calipers. They are supportive devices fitted to any part of the body.

Orthoses are designed, made and issued by orthotists. An orthotist will advise you on the type of orthosis you need based on a thorough initial assessment.

Orthoses can be made of many types of materials. They may be custom-made for an individual or pre-fabricated and adjusted for your needs. Some orthoses act passively, while others are dynamic and may use advanced technology.



A range of different orthoses

Orthoses can be designed to:

- Reduce skin pressures and pain
- Improve posture and balance
- Reduce the risk of tripping or falling
- Reduce the effort to do tasks
- Compensate for lost muscle volume or function
- Improve walking patterns and efficiency
- Support the movement and alignment of joints
- Immobilise an area to limit movement or promote healing
- Prevent joint strain, degeneration or injuries

## Terminology

Orthotic - an external support or brace for a body part

Orthosis - a singular orthotic device

Orthoses - multiple orthotic devices

Orthotist - a person who makes or fits orthoses

## Orthoses Materials

Orthoses are made from combinations of materials to meet your treatment goals. Depending on the required stiffness of the orthoses, they might be made from thermoplastic, carbon fibre, nylon or foam. Metal parts may be used to control joint movement or position and increase durability on larger orthoses. Velcro or leather straps help orthoses attach to a body part and to stay in place.

## Post-Polio Weakness and Damage to Joints

All people affected by polio have different profiles. Those with long-term impairment may be experiencing:

- Weak thigh and calf muscles causing an unstable knee
- Weakness in the foot and ankle muscles causing falling or walking difficulty
- Knee, hip or spine joint damage and pain due to an unstable knee
- Damage to joints from locking forces or too much rotation
- Trunk weakness, leading to excessive curvature of the spine (i.e. kyphosis and scoliosis)
- Weakness in the shoulder or arm causing pain or poor posture

Many of the impairments above are due to compensation. This means doing something to overcome a weakness or pain you experience. For example, because your left leg is weak, you rely on your right leg.

## Post-Polio: Context of Previous Orthoses Use

Those hospitalised with acute polio may have had rehabilitation decades ago. At that time, they might have used orthoses. Some people kept using their orthoses, while others gradually grew stronger and lost the need to use them.

Understand that it can be hard to face and deal with needing an orthosis again. However, to reduce a symptom or improve your function as your body changes, it may be helpful to have an orthosis prescribed later in life.

## Types of Orthoses

Orthoses are often known by the acronym of the area they are positioned in, and by the material or purpose they have. Some examples of orthoses that polio survivors might use are:

- Foot Orthosis (FO)
- Ankle Foot Orthosis (AFO) [passive]
- Ground Reaction Ankle Foot Orthosis (GRAFO)
- Knee Ankle Foot Orthosis (KAFO)
- Hip Knee Ankle Foot Orthosis (HKAFO)
- Wrist Hand Orthosis (WHO)
- Elbow or shoulder orthoses
- Spinal brace or trunk orthoses
- Active-Assist (computer-assisted movement)



Hip Knee Ankle Foot Orthosis (HKAFO)

## How Do I Get an Orthosis?

You can refer yourself to an orthotist or have your General Practitioner or another medical professional submit an orthotist referral on your behalf.

Orthotists are specialist allied health professionals, and are trained to provide different types of orthoses. They may work alone, in a group, or within a multidisciplinary team. Most work out of community clinics, but some work in hospitals

The Australian Orthotic Prosthetic Association has a website that assists in finding an orthotist in relation to where you live [www.aopa.org.au/findapractitioner](http://www.aopa.org.au/findapractitioner)

## Consultation with an Orthotist

Appointments with an orthotist may include:

- Questions about your everyday life, needs and responsibilities
- Sharing your concerns about falling or tripping, muscle weakness or pain
- Identifying and choosing your goals
- Discussing the orthotic options to meet your goals
- Assessments to evaluate your needs
- Tests and measures to determine your physical profile and abilities
- A complete digitisation/measurement/casting process
- Testing or getting feedback on the development on an orthosis
- An initial fitting of your orthosis
- Education on function, fit and hygiene of an orthosis
- Organising regular reviews of orthosis fit, use or maintenance

## Funding for Orthoses

Multiple funding bodies assist in funding orthoses. Please talk to your orthotists about which funding you may be eligible for.

## Travel to Orthotic Services

Please call ahead and discuss travel with your orthotist. There are options in most states to aid with reducing the strain of travel. Satellite clinics or telehealth appointments are also possible in some regions.

Because extensive travel to an orthotist may be necessary for those living in regional/remote Australia, State Travel Assistance Schemes may be able to reduce the burden of travel. Each state has its own scheme:

- ACT - Interstate Patient Travel Assistance Scheme (ACT IPTAS)
- Qld - The Patient Travel Subsidy Scheme (PTSS)
- NSW - Isolated Patient Travel and Accommodation Assistance Scheme (IPTAAS)
- NT - Patient Assistance Travel Scheme (PATS)
- SA - Patient Assistance Travel Scheme (PATS)
- Tas - Patient Travel Assistance Scheme (PTAS)
- Vic - Victorian Patient Transport Assistance Scheme (VPTAS)
- WA - Patient Assistance Travel Scheme (PATS)

## Individual Help

- Visit [Polio Australia's Health Professional Register](#) to find an orthotist who has experience with Late Effects of Polio
- Visit the [Australian Orthotic Prosthetic Association website to find a Orthotist near you](#)
- This fact sheet was created in collaboration with students from [La Trobe University's Prosthetics and Orthotics program](#) as well as the [Australian Orthotic Prosthetic Association](#)

*Disclaimer: The views expressed in this publication are not necessarily those of Polio Australia, and any products, services or treatments described are not necessarily endorsed or recommended by Polio Australia.*

The background of the page is an abstract composition of overlapping geometric shapes in various shades of red, pink, and magenta. The shapes are irregular polygons and triangles, creating a dynamic and layered visual effect. A solid dark red horizontal band spans the width of the page, serving as a background for the text.

Health