

Footwear advice for lower limb amputees attending Dorset Prosthetics Centre (DPC)

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This leaflet is aimed at helping you to make the right decisions when buying footwear.

Why is footwear so important for lower limb amputees?

Getting the right footwear will make a difference for almost all foot problems.

Comfort should be the main consideration when choosing shoes.

High-heeled shoes or shoes that pinch your feet can contribute to the development of deformities such as bunions or hammer toes. However a low wide heel is ideal for lower limb amputees who wear a prosthetic limb. An example of this can be seen in the picture below.



Your feet may change shape as you get older, especially if you have arthritis, so you may need to try a different size or width fitting. If the footwear protects your feet against injuries, supports them and keeps them warm, dry and comfortable, it's doing its job.

A good shoe fastening will improve fit generally and help if the feet swell. An adequate shoe fastening will prevent the foot from being removed while still done up and prevents the shoe from being used as a slip on.

Leather uppers are usually the most comfortable if you have foot problems, although many modern materials offer breathability, flexibility and comfort. Look for a cushioning sole unless you've been advised by a doctor or podiatrist that rigid soles are better for your particular foot problem.

If you have hammer toes or prominent joints, look for a smooth lining without seams.

If you need special insoles or orthoses, make sure there's enough room to fit them, especially in the toe area.

Once you have found shoes that fit well and support your feet, as well as accommodating your prosthetic foot, wear these inside and outside your home as the prosthetic limb will have been set up specifically for these shoes. Make sure your prosthetist is aware if you buy new shoes.

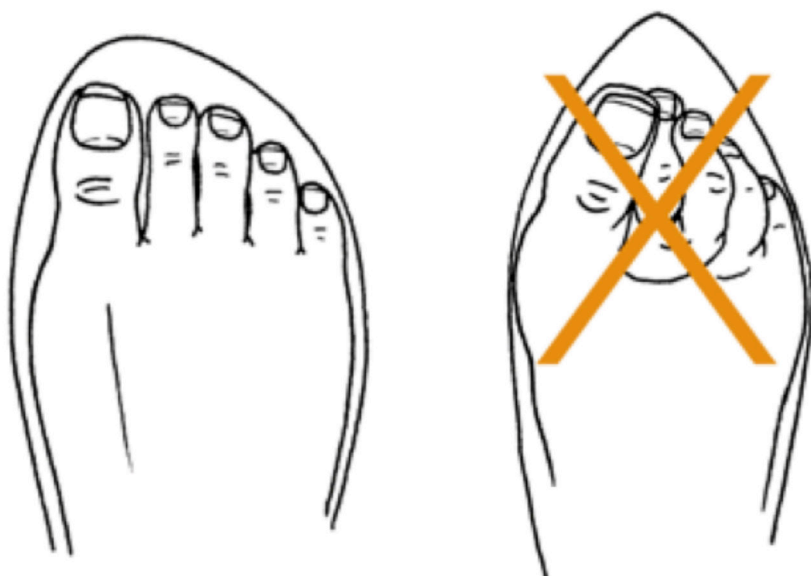
As a general rule for a prosthetic limb wearer you need to have a well cushioned sole with a height difference between the forefoot and heel of between 1cms and 2cms - see pictures below. Try to avoid flat shoes or those with a total heel height greater than 2.5 cms/1 inch. See picture below.



What do I need to consider when buying shoes?

Have your feet regularly measured. Your feet may change shape when you stand up, so have them measured while standing. Many shops have experienced fitters.

Always aim to have 1 cm of space between the longest toe and the inside end of the shoe upper. Ensure that the width of the toe area is enough to prevent tightness across the ball of the foot. This will allow the toes to spread and help prevent toe deformities - see pictures below that illustrate this. This is particularly important if you suffer from reduced blood supply or reduced sensation. If this is the case then discuss your shoe options with the podiatrist or orthotist at Dorset Prosthetics Centre (DPC).



Try shopping later in the afternoon. If your feet tend to swell they will be at their largest at that time. Remember also that your feet change shape for a number of reasons. Don't assume that your shoe size will remain the same.

Judge a shoe by how it feels on your foot and not just by the size marked on the shoe. Size varies between shoe brands and style. Draw around your foot while standing on cardboard. Cut it out and see if it fits the shoes you are thinking of buying or wearing.

Try shoes on with the type of socks or stockings you normally wear or with any insoles or orthoses you normally use. Some insoles may need extra depth, especially in the toe area.

Don't buy shoes to break in later. The right shoes for you will be comfortable when you first try them on. Even if the shoes feel comfortable when you try them on you will need to build up your tolerance to them gradually. Wear them initially for 2 hours at a time and increase the time each day.

If you are prone to fungal infections or sweaty feet buy shoes that have both leather uppers and inner linings. These are more breathable than inners made of synthetic materials and will help to reduce dampness.

If you suffer with dry skin then closed shoes will help protect the feet and prevent excess drying. Similarly wearing socks - preferably seam free - will further help prevent skin drying and reduce friction on vulnerable skin especially at the heels.

Look for dark colours and a suede finish if you're worried about the appearance of your feet.

What types of footwear are not suitable?

- Some replicated fur boots are unsupportive and are not recommended for use.
- Avoid 'mules' or footwear that doesn't secure the heel to the shoe.
- Avoid slip on shoes as they do not adequately hold the foot.
- Sandals or flip flops are not recommended for footwear adaptations or for general rehabilitation and may exacerbate or even be the cause of a foot related diagnosis.
- Slippers are not supportive and can be the cause of falls.
- Court shoes and high heeled shoes will be difficult to keep on, will alter the way you walk and may cause falls.
- Shoes with pointed toes may squeeze the toes together causing bunions or other toe deformities.
- Well worn shoes may not be suitable for repair. Only consider repairs if the uppers are in good condition. Seek advice from the DPC podiatrist or orthotist if you are unsure.

What about insoles?

You may need insoles in your shoes for a number of reasons. An insole, or orthosis, can help to support the arch of your foot. If you have arthritis in the joint across the middle of your foot - the midtarsal joint - a rigid insole may help.

Insoles will often take up **half a shoe size**, so take along your largest shoes when you go for an insole fitting. Sometimes you may need to purchase a larger shoe to accommodate an insole, although this is not always the case. Take your insoles along when you buy new shoes. Many shoes will have a removable liner that can be removed to accommodate insoles.

If you need to wear a prescribed insole, don't try to wear the new insole all day when you first receive it. Wear it for a short period at first and gradually build up to longer periods.

If you change your shoes indoors, either have a second pair of insoles for your indoor shoes or remember to swap the insoles over. Your feet will return to their old shape while indoors and will never be comfortable if you don't continue to wear your insoles.

Shoes are not provided to accommodate insoles unless there is foot deformity or clinical need. Insoles cannot be worn in sandals as they are not sufficiently supportive and the insoles will not remain in place.

What alternatives are there if I struggle with laces?

Lace-up shoes can be difficult to fasten if you have arthritis in your hands. Here are a few alternatives:

- Elastic laces with a toggle can be easier to use because one pull ensures a snug fit and they don't need to be tied
- Many shoes are now available with Velcro fastenings. Velcro can be done up and adjusted using only one hand
- A zip fastening can be easier to manage than laces or buckles. A keyring added onto the zip pull can make it easier to pull up

There are also a number of devices available to help people with putting on socks, tights/stockings and shoes. Useful leaflets on this and other subjects related to the feet and footwear are available from the Disabled Living Foundation or via the Prosthetics Centre occupational therapist.

How to get help to find the right shoes?

People with permanently swollen feet, very narrow, long, or broad feet, or with hammer toes or bunions may find it difficult to find shoes that fit them well.

A number of retailers are beginning to stock shoes with extra width and depth. It may be possible to have high-street footwear adapted by an orthotist.

Some people may have footwear prescribed by an orthotist. You can also opt to see an orthotist or orthopaedic shoemaker privately. At DPC we have an orthotist and shoemaker who you can be referred to be seen if your feet don't fit into commercially available shoes. If you are struggling in any way with this please ask to be assessed by the podiatrist for further advice.

Footwear is not provided by the hospital for swollen or bandaged feet. Ask the DPC podiatrist or orthotist for details of local specialist mobility shops or mail order suppliers of wider fitting shoes. Temporary foot wear for heavily bandaged feet may be available from your GP or district nurse on prescription.

What help can I get if I need to wear safety footwear?

Safety footwear is not provided by the NHS in Dorset.

If you need to wear safety boots for work, they should display the British Kitemark or CE mark.

If your existing safety footwear is uncomfortable, you may need to talk to your employer about getting alternatives. Safety versions of extra-depth and cushioned shoes are available. If you suffer from toe or foot ulceration, make sure that safety footwear is not causing pressure or pain to the wounds.

If you have a lower limb amputation in the first instance you should speak with your employer about any 'reasonable adjustments' that can be made in the work place. You may be able to get additional support through an 'access to work' grant. Further information on this can be obtained via:

www.gov.uk/access-to-work/print

In summary:

- F**astening - make sure you have velcro or laces to hold the foot
- O**ppportunity to keep foot safe
- O**rthotics - not just for 'Best'; if you've been issued with hospital shoes they should be worn inside and outside.
- T**oebox - adequate space around toes?
- W**ear - do they need replacing?
- E**xtra cushioning underfoot
- A**void barefoot
- R**ubbing points and seams

Further footwear advice can be found via:

<https://cop.org.uk/foot-health/footwear/>

www.versusarthritis.org/about-arthritis/conditions/foot-and-ankle-pain/#foot-and-ankle-pain_exercises-to-manage-foot-pain

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