

# A Guide for the new Trans-Tibial Amputees Stump Socks – “How Many Should I Wear?”

## **WestMARC**

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A question which new patients and their carers frequently ask is:  
**“How do you decide how many stump socks should be worn with the prosthesis?”**

Regardless of the level of amputation, most new patients will wear one or more stump socks with their prosthesis. Stump socks protect the stump and also help with any volume changes.

By changing and washing the socks every day this help keeps the stump healthy and reduces the risk of infection. We will give you several stump socks so that you can change your socks every day.

Following the initial surgery, your stump may retain fluid (we call this oedematous). As the wound heals, the fluid reduces and the stump becomes smaller. On the other hand, some people who have been quite ill before surgery and have lost weight, may gain weight as their health improves and their stump may increase in size.

This leaflet will describe the stump/socket relationship for the **new trans-tibial or below the knee** amputee.

### **The Fit of the Patella Tendon Bearing (PTB) Socket**

The type of limb most commonly prescribed for this level of amputation is the Patella Tendon Bearing (PTB) prosthesis which is shaped to allow weight-bearing through the stump in a particular way. It will usually have a soft foam liner and a more rigid socket which allows you to take weight through the limb. Providing your stump remains similar in size and shape to when the cast was taken, much of your weight will be taken on the upper parts of the stump including the patella tendon, and on either side of the tibia (shin bone). You can feel the patella tendon between the bottom of your knee cap and the top of your tibia. It is a robust tendon and is capable of tolerating pressure well. The softer tissue areas at either side of the tibia are pre-compressed by the shape of the socket, which helps to stabilize the stump within the socket and to relieve pressure at the distal (bottom) end of the tibia.

## **First Fitting**

When your leg is first fitted, your prosthetist will try the prosthesis with one sock, usually a thick terry sock or a thinner cotton sock. Your prosthetist will expect to feel some resistance as the liner is pushed up on to the stump towards the patella tendon. If there is little resistance and the liner goes on too easily, they will add other socks until there is a better fit. On the other hand, if there is too much resistance and the socket is too tight, they will change to a thinner sock.

When the socket is fitted to the prosthetist's satisfaction, and you have walked on the leg between the parallel bars they will examine the stump for pressure marks. Typically there will be a small indent at the patella tendon and some sock marking. If the tendon marking is at the bottom of the patella instead of on the tendon, this suggests that the stump is sinking in to the socket a little too far and they will add a thicker or extra sock.

If the tendon mark is low on the tendon, or on the tibia, this suggests that the socket may be too tight. This may be accompanied by redness across the condyles (knee bones). In this case, we can improve the fit by changing to a thinner sock or removing one if you are wearing several.

By altering the stump socks to accommodate volume changes, we are usually able to maintain socket fit and function for some time.

Unfortunately, the stump volume does not always change uniformly. You may notice that the bottom part of the stump reduces more than around the knee and adding socks makes it uncomfortable or tight at the knee. You can try adding a half-sock\* at the bottom which may take-up the right amount of space, or the prosthetist may add pads to the outside of the foam liner to improve the fit.

If the socket feels loose at the top half, you can add a half sock to improve the fit.

When the Prosthetist decides that changing combinations of socks and adding pads or linings to the socket no longer helps, they may consider casting for another socket.

After amputation, you should use a compression or shrinker sock when you are not wearing the leg, as this will help to improve healing and regulate stump volume. Once the stump volume stabilises this will no longer be necessary.

\*A half-sock is a regular stump sock which has had the 'toe' cut off and the remaining 'tube' is used at the top or bottom of the stump, along with other stump socks, to improve socket fit.

## **Contact Details**

**Opening Times:** Monday to Friday 8.30am to 4.30pm

**Telephone:** 0300 790 0129

(Monday to Friday: 8.45am to 4.15pm).

An answerphone is available if the phone lines are busy.

### **Website:**

[www.nhsggc.org.uk/your-health/health-services/westmarc](http://www.nhsggc.org.uk/your-health/health-services/westmarc)

**Email:** [westmarc@ggc.scot.nhs.uk](mailto:westmarc@ggc.scot.nhs.uk)

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