

## Below Knee Prosthesis

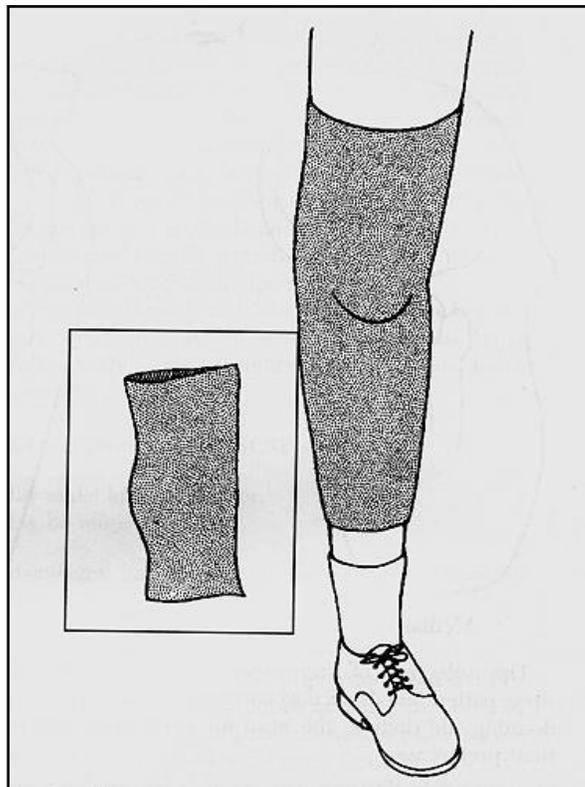
### Suspension Sleeve Suspension

#### General Description:

There are many types of below knee prostheses. The type that an amputee is fit with depends on the shape of the residual limb, activity level, prognosis, and individual preference.

In order to wear a below knee prosthesis, a method of suspension must be used to keep the prosthesis on the user's limb, regardless of the socket design.

A suspension sleeve is a sleeve that is attached to the prosthesis and rolls onto the user's thigh, creating a seal and holding the prosthesis on the limb. The sleeve may be made of neoprene, gel, or various fabrics. A suspension sleeve can be used as a primary suspension method or as secondary suspension with another prosthetic socket design. Some suspension sleeves also rely on vacuum created by an airtight seal between the sleeve and underlying socket and limb. In this case, vacuum along with the suspension sleeve holds the prosthesis on.



Visit us at: [www.scheckandsiress.com](http://www.scheckandsiress.com)

Call us at: 1-866-SCHECK1

**Commitment • Quality • Care**

## Application and Removal:

1. Before donning the prosthesis, the suspension sleeve must be inverted onto the prosthesis so that the residual limb can be inserted into the socket.
2. Put on the prosthesis as instructed by your prosthetist:  
Some patients may apply socks and a soft insert and then push into the socket. Some patients may be fit with a hard socket without a soft insert. In these cases, the patient may use only socks, he may have a special sock impregnated with gel, or wear a silicone gel cushion liner. In these instances, the patient applies the gel sock, gel liner, and/or socks and then pushes the limb into the socket.
3. After applying the prosthesis, the suspension sleeve must be rolled up onto the thigh (See Figure 1). Depending on the manufacturer, the suspension sleeve will be either rolled onto the thigh or pulled up onto the thigh. In any case, the sleeve must be pulled up tightly without any wrinkles (See figure 2). It is important that the top part of the suspension sleeve is in contact with 2-3 inches of skin of the thigh. It is important that it is above the prosthetic socks and touching skin in order to maintain good suspension. The sleeve may be applied either while standing or sitting. If applied while sitting, the patient may need to adjust the sleeve after standing to remove any wrinkles.



Figure 1



Figure 2

To remove the prosthesis, the suspension sleeve is either rolled or pulled down over the prosthesis and the limb can then be lifted out of the socket.

Visit us at: [www.scheckandsiress.com](http://www.scheckandsiress.com)

Call us at: 1-866-SCHECK1

**Commitment • Quality • Care**



### **Care and Maintenance:**

The prosthetic socks, gel socks, liner and sheaths should be cleaned following that particular manufacturer's directions. The soft insert and the prosthetic socket may be wiped out with warm, soapy water or alcohol as needed. Clean socks should be worn every day.

The suspension sleeve should be cleaned following the manufacturer's directions.

### **Tips and Problem Solving:**

Generally, the most difficult concept for an amputee to master is how to determine the correct sock ply to wear. Wearing the correct amount of socks is critical for comfort as well as safety. Your prosthetist and physical therapist will supply you with general guidelines in wearing socks, but if you have any questions, do not hesitate to contact or visit your prosthetist.

A suspension sleeve will need to be replaced when worn or if holes develop. The lifespan of the sleeve varies depending on the patient's activity level and type of suspension sleeve. Holes in the sleeve will decrease the ability of the sleeve to suspend. Do not leave the sleeve rolled down over the prosthesis overnight, because this can stretch out the sleeve. If the suspension sleeve is not holding the prosthesis on the leg well, see a prosthetist for a replacement.

Visit us at: [www.scheckandsiress.com](http://www.scheckandsiress.com)

Call us at: 1-866-SCHECK1

**Commitment • Quality • Care**