

Below Knee Prosthetic Suspension Sleeve - Instructions

This pull-thru technique is helpful when the stump shape or fit prevents the insert from being fully applied. This often occurs when the stump has significant soft floppy tissue or when the stump is bulbous in shape. The distal end of the residual limb is usually intended to touch or reach the bottom of the foam insert.

- The suspension sleeve is generally very effective to "suspend" or hold the prosthesis on. It can be used as a primary or auxiliary suspension.
- Neoprene or textile type sleeves work due to their friction or "grab" to the thigh and top of the prosthesis. Gel type sleeves (silicone, urethane or others) work by also creating an airtight seal between the thigh skin and the top of the prosthesis.
- All sleeves have a limited life span and will eventually wear out or tear, requiring replacement.
- An under layer of cloth may be attached over the top of the prosthesis to protect the sleeve from the socket trimlines.
- Most sleeves work best when pulled as high as possible on the thigh. This provides the maximum surface area for the sleeve to grab and spreads the load over a greater area.
- Skin irritations, usually in the form of a rash, can occur when the sleeve is not regularly washed. Neoprene or cloth sleeves can generally be put in a washing machine and dryer. Gel sleeves must be hand washed.
- A ring or line of redness can occur on the thigh near the top of the sleeve if it is too tight or the skin is very soft. In this case a short tube of cloth or nylon can be placed under the top inch or so of the sleeve to reduce the shear forces, which cause this.
- All sleeves will restrict knee bending to some extent. This usually improves in time as the sleeve breaks in and the amputee gets accustomed to wearing it.
- Care should be taken to avoid kneeling on the sleeve or other activities that would damage the sleeve and cause its premature failure.

Donning the sleeve

To don the suspension sleeve begin with it rolled down. Grasp it firmly on both sides and pull it upward.





The sleeve will turn right-side-out as it is pulled up over the top of the socket and onto the thigh. A light dusting of non-scented powder may make the sleeve slide more easily.

Standing with weight on the prosthesis will help to pull the sleeve tightly and fully up onto the thigh. It is important to make sure the sleeve has as much contact with the thigh skin as possible to maximize its grip. Stump socks too high under the sleeve may allow it to slip down.



Once the sleeve is in place, long leg pants or trousers can be pulled up over.

If you have questions regarding this procedure, please call 978-922-2866.