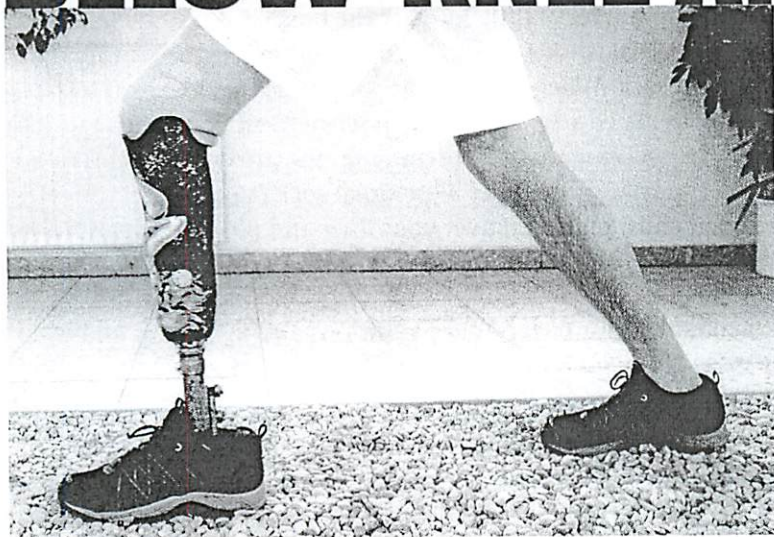


10 Tips for BELOW-KNEE AMPUTEES



Who Use a Liner and Pin Suspension System

by John Peter Seaman, CP

The following tips can help make using a below-knee prosthesis a little less complex and a more comfortable experience.

One | If you plan to sit for an extended period with your knee flexed, quickly depress and release the lock release button. This will allow the pin to pull out of the lock slightly, relieving some of the tension in the liner over your kneecap and the distal/anterior portion of the front of your tibia (shinbone). When you stand back up, you'll get the one or two clicks back on your pin, and your limb will seat down into the socket again.

Two | After you roll on your liner, if the top (the cut part) is tight around your thigh, it can irritate your skin. If this occurs, you can pull a thin four-to-six-inch-long tube sock (1-ply, cut so that both ends are open) onto your residual limb before rolling on your liner. Position it on your thigh above the knee so that the cut edge of your liner, when rolled on, sits in about the

middle of the tube sock. Then roll your liner onto your limb so that it covers the bottom half of the tube sock, and pull the top half of the tube sock (that's still exposed on your leg after rolling on the liner) down over the outside of the top of the liner. The tube sock will act as an interface between the liner and your skin, reducing friction and wicking out sweat.

Three | If you feel your limb slipping around inside the liner due to sweating, take everything off and dry the inside of the liner and your residual limb. Some amputees need to do this several times a day, especially in the summer. You can also try pulling on a thin, full-length, 1-ply prosthetic sock over your residual limb before you roll on your liner. Have the sock long enough so that it extends out beyond the cut end of your liner so you can pull the top part of the sock out over the top of the liner. The sock will wick the sweat from between the liner and your skin.

Four | **Trimming the hair on your residual limb** allows the inside of your liner to contact your skin more closely. Clip it short, 1/8 inch or so – do not shave it. This can help prevent your liner from slipping on your leg when you sweat.

Five | **If you need to add prosthetic socks over your liner** to replace lost volume during the day, you may need to add a partial sock instead of full-length socks. If you pull on several full-length socks, the socket may start feeling tight around your knee, especially on the sides; at the same time, it may still feel a little loose at the bottom. This is when you can pull on a partial (short) sock created by cutting off the bottom part of a full-length sock. When pulled over your liner, this sock will stop before reaching the knee area and will help replace lost volume in the distal end of the socket without tightening up the proximal end of the socket around the knee. Sometimes a proximal sock (a portion of sock that has two open ends) pulled on over your liner and positioned around the knee area before you don your prosthesis will prevent your residual limb from going too deeply into the socket during weight-bearing. Experiment with combinations of sock plies, positions and lengths to find what works best for you.

Six | **If you change shoes often**, this can affect how your prosthesis functions. When you're fitted with your prosthesis, your prosthetist aligns it to match the shoe you're fitted in. If you change into shoes that have a different heel-to-sole-thickness relationship than your original shoes, your prosthesis won't be properly aligned; this may cause instability in your knee when you walk. If this happens, you may need to add or remove heel wedges or inserts in your shoes to compensate for the difference in heel thickness.



Seven | **When you receive a new prosthesis**, you will typically get two new liners. Alternate using these liners on a daily basis; this allows the two liners to be broken in at an even pace.

Eight | **If you wear prosthetic socks over your liner**, keep the end of the sock off the pin at the end of the liner before donning your prosthesis. These socks will have a small slit to allow the pin to pass through. If you get the sock stuck in the lock when you insert the pin while donning your prosthesis, it could make it hard to remove the prosthesis.

Nine | **Using soapy water between your residual limb and the liner** can sometimes allow you to slip your limb out of the liner while the liner is still locked into the socket. Then you might be able to remove the liner from the socket. If not, take your prosthesis to your prosthetist.

Ten | **When rolling a line onto your residual limb**, roll it all the way inside out so that the closed end is almost flat. Hold it tightly against the end of your limb while rolling it on to avoid trapping any air between the end of your residual limb and the liner. If this occurs, your limb will "piston" when you walk, creating suction and resulting in a blister.