

Above Knee Prosthesis

There are a few different types of above knee amputations. One is a Knee Disarticulation in which the entire femur/thigh bone is left intact, usually with the condyles still present at the end. The patella may or may not be present as well. This type allows for some weight bearing on the end of the limb. The other type is a transfemoral amputation. For this level, some of the femur is removed as a part of the amputation. This style is generally not designed to be able to bear full weight on the end of the limb, rather the weight of the body must be distributed through the entire residual limb. The prosthesis for this level of amputation will have at least the following components: a socket, a prosthetic knee, a pylon, and a prosthetic foot. There are many components (lock types, knee types, foot types, etc) that are available. Your prosthetist will design your prosthesis and obtain components specific to your goals, activities, and abilities. If at any point you have questions or concerns regarding your residual limb and/or prosthesis, please call Westcoast Brace and Limb to speak with an Amputee Case Manager or with a Licensed Prosthetist.

Silicone Suction Suspension (aka Pin System or 3S)

With silicone suction suspension the user rolls a silicone, urethane, or polymer liner on the residual limb creating a seal through total contact. The liner has a pin on the end that locks into a lock installed at the bottom of the socket. In some cases this pin may be replaced with a strap that will go through a slot at the end of the socket and then secure onto the front of the socket.

Application of the liner: Turn the liner completely inside out so the bottom is the shape of a saucer (not a bowl). Place the liner firmly against the bottom of the limb, be sure to keep it centered. Then begin slowly rolling up the liner. Never pull it up like a sock. This will cause blistering of the skin and an improper fit. Unless you have been instructed to do so by your Prosthetist, avoid using lotions or creams on the residual limb before rolling on the liner.

If needed, a prosthetic sock is then pulled on over the insert. The volume of the residual limb and the fit of the prosthetic socket determine the thickness of the sock that is needed. (See the trouble-shooting document for further education on sock management).

Putting on the Prosthesis: If a locking liner is being used, push your residual limb with the liner on it, into the socket. Slowly lift up and push down on the leg until the plunger/pin connects into the lock in the bottom of the socket.

Removing the Prosthesis: Push the release button that is located toward the bottom of the prosthesis. You must hold the release button down as the leg is removed from the prosthesis. Now begin to unroll the locking liner.



Seal-In Suction System

This type of system uses a roll-on silicone liner with a rubber seal on the outside. When the prosthesis is on, this rubber seal on the liner contacts the inside of the socket and then air is expelled through a valve at the bottom of the socket. This creates a very firm type of suction suspension while still providing the benefits of using a roll-on liner.

Application of the liner: Turn the liner completely inside out so the bottom is the shape of a saucer (not a bowl). You may need to wet the rubber seal with a few drops of water to make this easier. Place the liner firmly against the bottom of the limb, be sure to keep it centered. Then begin slowly rolling the liner up your leg. Never pull it up like a sock. This will cause blistering of the skin and an improper fit. Once the liner is fully in place, make sure the seal is flipped up to the correct position. Unless you have been instructed to do so by your Prosthetist, avoid using lotions or creams on the residual limb before rolling on the liner.

If needed, a prosthetic sock can be pulled on over the insert, but must be tucked underneath the rubber seal, so as not to interfere with getting suction. The volume of the residual limb and the fit of the prosthetic socket determine the thickness of the sock that is needed. (See the trouble-shooting document for further education on sock management).



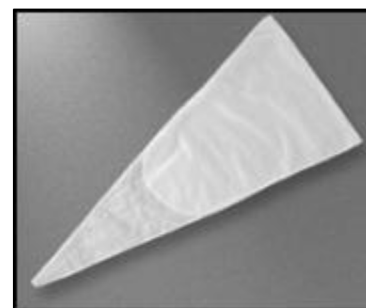
Putting on the Prosthesis: Again, if needed apply a few drops of water or spray some rubbing alcohol on the rubber seal. This will reduce some of the friction as you step down into the socket. If you had removed the valve at the bottom of the socket for easier/quicker donning, you need to re-install this now. Press the button to ensure the air is expelled out. You may need to alternate between lifting the leg a little and then pushing down, to fully expel all the air.

Removing the Prosthesis: Sit down, then push the release button on the valve or unscrew the valve to break the seal from the suction. You must hold the release button down as the leg is removed from the prosthesis. Now begin to unroll the liner down your leg.

True Suction Fit

This type of a fit/suspension requires you to use a pull sock or donning sheath to pull your skin (bare) into the prosthesis. This system works well for people who have very little to no changes in the size of their residual limb on a day to day basis. If you experience changes in size, this may not be the system for you.

Application: pull your donning sock or sheath as far up your residual limb as possible. Be sure that there is a decent amount of material that hangs past the bottom of your limb. Remove the suction valve from the bottom of the socket. While standing, supported, feed the donning sock or sheath through the hole in the bottom. While slowly raising the limb begin to pull the sock down, drawing your leg into the socket. You will need to repeat this process multiple times, until the sock can be fully removed from inside the socket and your skin/leg is all the way inside. Now push on your skin at the hole where the valve goes to make sure you're in, then insert the valve.



**North Tampa
(Corporate Office)**
5311 E. Fletcher Ave
Tampa, FL 33617
813-985-5000

Palm Harbor
3343 Tampa Road
Palm Harbor, FL 33684
727-785-0100

West Tampa
2727 W. Dr. M.L.King Jr. Blvd
Suite 690
Tampa, FL 33607
813-354-0100

St. Petersburg
4021 Central Ave, Suite C
St. Petersburg, FL 33713
727-323-9500

Brandon
620 Oakfield Dr.
Brandon, FL 33511
813-684-5525

Removal of the prosthesis: Remove the valve from the bottom of the socket to break the seal. Push from the top of the socket while trying to pull your leg up and out. It is safest to do this from a sitting position.

Care and Maintenance:

If you have a liner, locking or seal-in, the inside of the liner must be **Hand Washed Daily** with mild soap such as Soft Soap® Brand (no perfumes, lotions, or deodorants) and water. Blot dry with a towel. Store the liner the right side out and away from direct heat. Do not leave the liner flipped inside out as this will cause the gel in the liner to prematurely stretch out and breakdown.

Clean socks should be worn daily.

The prosthetic socket can be wiped out with mild soap and water as needed.

If you have any questions or concerns, please call Westcoast Brace and Limb to speak with an Amputee Case Manager or your Licensed Prosthetist.

**North Tampa
(Corporate Office)**
5311 E. Fletcher Ave
Tampa, FL 33617
813-985-5000

Palm Harbor
3343 Tampa Road
Palm Harbor, FL 33684
727-785-0100

West Tampa
2727 W. Dr. M.L.King Jr. Blvd
Suite 690
Tampa, FL 33607
813-354-0100

St. Petersburg
4021 Central Ave, Suite C
St. Petersburg, FL 33713
727-323-9500

Brandon
620 Oakfield Dr.
Brandon, FL 33511
813-684-5525