

What is NPS suspension & How does it work?

Virginia Prosthetic's dual socket NPS/ Elevated vacuum is more than a simple suspension mechanism. NPS stands for Negative Pressure System. It's the most secure suspension available that also helps stabilize volume. As per our amputee's testimony; "It feels more connected to me, like it's a part of me." Vacuum suspension works by eliminating atmosphere from within the socket. In simple terms, the vacuum pump pulls soft tissue to the inner walls of the socket. Thus, suspension & prosthetic control is enhanced, common rotation problems are eliminated, and prosthetic control is optimal. *(Not all dual sockets are NPS equipped. Suction is very effective and commonly used without NPS, as indicated.)*

Key Components & Requirements for Elevated Vacuum Suspension

- A precisely fit comfortable total contact socket.
- A well-fitting silicone or urethane interface liner.
- A sealing sleeve is to seal the socket to the residual limb.
- A mechanical or electronic vacuum pump.
- A wick/sock to pull air from the entire surface of the residual limb (if applicable).
- Understanding of vacuum protocols and seamless communication between the amputee and his/her Prosthetist.

AK/TF PROSTHESIS



COMMON PROSTHETIC COMPONENTS



SYSTEM SPECIFIC COMPONENTS



PUTTING ON YOUR PROSTHESIS



1. Turn the interface liner inside out.



2. Place rounded end against limb & lightly grip liner.



3. Roll completely onto limb without wrinkles.



4. Place correct ply sock (if applicable).



5. Place inner socket aligned to correspond with outer socket locking mechanism.



6. After inner socket is completely against skin, roll up the sealing sleeve.



7. Insert limb with the inner socket into outer socket.



8a. Ensuring you are completely into the socket, push button to engage lock.



8b. Check lock by pulling up on residual limb.



9. Attach plastic hose from pump to the inner socket.



10. If equipped with electronic pump, turn on.

TIP: If the socket doesn't feel comfortable, you will need to take the inner and outer socket off. Then rotate the inner socket so the outer socket seats into the design comfortably.

TAKING OFF YOUR PROSTHESIS

1. Sit down.
2. Turn the vacuum pump off.
3. Disengage the vacuum hose from inner socket.
4. Pull out the locking pin.
5. Push the outer socket off.
6. Pull down sealing sleeve and remove inner socket.
7. Turn sealing sleeve back up on inner socket.
8. Place inner socket down into rigid socket for storage and engage pin.
9. Slide off interface liner and inspect skin.

**** If there is redness that doesn't blanche or go away after 10 minutes, discontinue prosthetic use and contact your Prosthetist immediately.**