

# Short residual limb

Example 1



Example 2



Example 3



# With Your® Liner

Limb



3D model



Your® Liner



## Indication

The below-knee section of the residual limb is short. Patient's weight will subsequently be supported on a limited surface, leading to higher in-socket pressure.

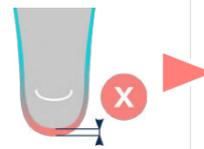


## Typical issues

### Off-the-shelf liner doesn't provide enough cushioning

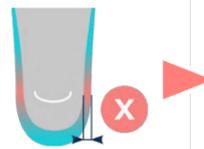
Short stumps by essence provide a reduced load-bearing surface. During stance phase of gait, the weight of the patient is spread out on smaller areas, which therefore bear a higher pressure.

An off-the-shelf liner can provide a thickness profile in the below-knee region which is not thick enough to prevent pressure peaks to occur under the specific high-pressure conditions inherent to short stumps. Such pressure peaks can lead to pressure sores, skin breakdown, etc.



### Off-the-shelf liner is too thick at knee level

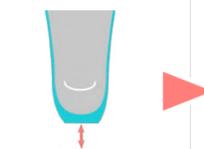
Off-the-shelf liners often provide a tapered thickness profile, from thick in distal to thin in proximal. For short stumps, the thickness profile of an off-the-shelf can decrease too "slowly" to have reached "minimal" thickness in front of the knee. A too-thick liner at knee level can lead to excessive pressure on the patella and discomfort in the popliteal region during knee flexion.



### Suspension issues

Short stumps often face suspension issues:

- Distal locking systems are prone to pistoning, and short stumps can be particularly sensitive to this.
- The anti-pistoning matrix can extend over the knee and block knee flexion
- Sleeves also have a small surface to hold onto the socket, and available sleeve geometries can be limited.
- In-socket vacuum suspension (without sleeve) is often impossible.



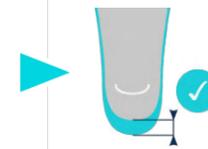
## Key features



Adjustable thicknesses



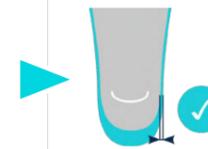
Configurable suspension



### Thicker thickness profile in below-knee region

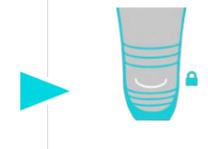
With the possibility of adjusting the local thicknesses, Your® Liner can be made thicker for short stumps, to reduce the risk of pressure peaks occurring and their detrimental consequences.

A thicker distal layer can also extend the below-knee segment, which can give a longer lever to better control the prosthesis.



### Minimal thicknesses at knee level

A Your® Liner is by default made to provide a minimal thickness at knee level, to reduce as much as possible the risk of excessive pressure on the patella and of discomfort in the popliteal region during knee flexion.



### Combined suspension systems

Your® Liner offers the possibility to combine pin-lock, below knee silicone rings for enhanced in-socket suspension, and proximal silicone rings for enhanced sleeve grip. Combining such systems can improve overall suspension, which can make the difference in cases where suspension is tricky, such as with short residual limbs.

How can Your® Liner help ?

