

Appendix D: Comparison of Long-Term Urinary Catheter

Long-term indwelling urinary catheters are expected to stay in for more than 28 days and up to 12 weeks. They are made from materials that can better resist rapid colonization by bacteria and encrusting by mineral deposits. The most common long-term catheters are made of silicone, latex core with a hydrogel or silicone-elastomer coating or silicone coated with hydrogel.

The selection of catheter material should be based on the expected duration of catheterization, client comfort, ease of insertion and removal and any history of allergies to catheter components.

Catheter Material	Recommended Usage	Advantages	Disadvantages
Silicone biocompatible with the urethral mucosa	Long-term, up to 12 weeks	Wider lumen for drainage May reduce the potential for encrustation Suitable for clients with latex allergy	Can be less flexible than latex coated catheters Balloon may shrink due to water loss through gas diffusion May have difficulty removing, due to “cuffing” of the balloon
Hydrogel coated latex hydrogel (a hydrophilic polymer used in contact lenses) absorbs water and forms a smooth coat on the catheter that is biocompatible with human tissue	Long-term, up to 12 weeks	May reduce friction on the urethra mucosal during insertion May reduce potential for encrustation	Unsuitable for clients who are allergic to latex
Silicone elastomer coated latex (silicone bonding to outer and inner surfaces) has the biocompatible properties of silicone with the flexibility of latex	Long-term, up to 12 weeks	May help to reduce potential for encrustation May reduce mucosal irritation	Unsuitable for clients who are allergic to latex
Hydrogel coated silicone hydrogel (a hydrophilic polymer used in contact lenses) absorbs water and forms a smooth coat on the catheter that is biocompatible with human tissue	Long-term, up to 12 weeks	May reduce friction on the urethra mucosa during insertion Suitable for clients with latex allergy	Rigid material: may result in client discomfort