Guide for Successful Insertion of ViaValve® Safety IV Catheters

ONE HANDED TECHNIQUE

1. Apply tourniquet and prepare site according to policy.
2. Hold catheter by ribbed needle housing with thumb and fingers to insert needle into skin.
3. Visually inspect to confirm that needle bevel and push-off tab are facing up.
4. Anchor vein with gentle skin traction.
5. Insert needle at appropriate angle.

PUSH

1. Observe for flashback.
2. If needed, slightly advance catheter and needle together to achieve full catheter entry into vein lumen.
3. Place index finger behind the primary push-off tab and PUSH catheter to thread to desired length.
4. DO NOT REINSERT NEEDLE INTO CATHETER AT ANY TIME.

PULL & CLICK

1. Stabilize device at push-off tab with index finger.
2. Holding ribbed needle housing, PULL needle into needle guard until you hear a CLICK.
3. THE CLICK AND VISUAL INSPECTION INDICATE THAT SAFETY DEVICE HAS ENGAGED SUCCESSFULLY.

DISCONNECT

1. Remove tourniquet.
2. Apply digital pressure as needed beyond catheter tip.
3. Hold catheter hub and needle housing.
4. Disconnect needle housing by pulling backwards with a slight upward motion.
5. Connect Luer lock or tubing to hub per manufacturer’s recommendation.
7. Stabilize and dress according to policy.

TWO HANDED TECHNIQUE

1. Apply tourniquet and prepare site according to policy.
2. Hold catheter by ribbed needle housing with thumb and fingers to insert needle into skin.
3. Visually inspect to confirm that needle bevel and push-off tab are facing up.
4. Anchor vein with gentle skin traction.
5. Insert needle at appropriate angle.

PUSH

1. Observe for flashback.
2. If needed, slightly advance catheter and needle together to achieve full catheter entry into vein lumen.
3. Place finger or thumb of other hand behind the primary push-off tab and PUSH catheter to thread to desired length.
4. DO NOT REINSERT NEEDLE INTO CATHETER AT ANY TIME.

PULL & CLICK

1. Stabilize device at push-off tab with finger or thumb.
2. Holding ribbed needle housing, PULL needle into needle guard until you hear a CLICK.
3. THE CLICK AND VISUAL INSPECTION INDICATE THAT SAFETY DEVICE HAS ENGAGED SUCCESSFULLY.

DISCONNECT

1. Remove tourniquet.
2. Apply digital pressure as needed beyond catheter tip.
3. Hold catheter hub and needle housing.
4. Disconnect needle housing by pulling backwards with a slight upward motion.
5. Connect Luer lock or tubing to hub per manufacturer’s recommendation.
7. Stabilize and dress according to policy.

IMPORTANT: Please see the Instructions for Use supplied with the product for a complete listing of the indications, contraindications, warnings and precautions.
## Clinical Tips

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| Feels dull | 1. Catheter partially covering needle tip.  
2. Catheter pushed forward over needle bevel by inadvertently moving push-off tab forward prior to insertion.  
3. Manipulation of hub prior to insertion (Do not twist hub of catheter) |  
• Visually inspect catheter to ensure it is properly seated prior to insertion. Often an audible click is heard when hub is re-seated (see diagram).  
• Avoid resting finger on push-off tab before insertion.  
• Consider stabilizing index finger in front of push-off tab for insertion if needed. |
| Tough to thread catheter off needle | 1. Only tip of needle in vessel (catheter not in vessel yet).  
2. Grip pads held too tightly.  
3. Catheter is hitting valve.  
**CORRECT FINGER PLACEMENT:** Make sure fingers are on the grip pads. |  
• Drop angle after confirming flash and slightly advance catheter and needle together as single unit to achieve full vein entry before threading catheter. “Stop, Drop and Advance.”  
• Confirm fingers are on grip pads. Squeezing not necessary and may prevent guard from sliding forward for safety activation.  
• Assess for optimal catheter location prior to insertion to avoid bifurcations and valves.  
• Consider floating catheter in with fluids. |
| Catheter feels flimsy or kinks during threading | 1. Needle pulled back before catheter fully threaded into vessel.  
2. Pushing and pulling simultaneously.  
**CORRECT PROCEDURE:**  
1. PUSH catheter to skin line first, then  
2. PULL needle back. |  
• Prematurely removing the needle can give the ‘feel’ that the catheter is flimsy. Catheter needs the needle in order to thread properly into vessel (needle acts like a guidewire).  
• Fluids may be used to float in the catheter if needed.  
• With fingers on grip pads, anchor to skin to isolate push-pull motions.  
• PUSH catheter to skin line, then PULL needle back. Do not PUSH and PULL at same time. |
| Blown vein | 1. With rapid insertion, flash may be missed.  
2. Force and angle of insertion too high, piercing back wall of the vessel.  
3. Needle advanced too far, piercing back wall of vessel. |  
• Slow insertion and watch for flash to confirm initial vessel entry.  
• Reduce force applied to puncture skin.  
• Lower angle of insertion.  
• Drop angle once flash observed, advance slightly as one unit, stabilize the needle, and then ONLY thread the catheter forward off the needle. |
| Difficult to connect/blood leakage | 1. Insufficient force being applied to properly secure the extension set to the hub.  
2. Luer slip connector is used instead of Luer lock connector on the extension set. |  
• Stabilize catheter hub, pull back the spin collar on the extension set to expose the male luer. Fully insert the nose/tip into the catheter hub, then reseat the spin collar. Slight resistance may be felt as the male luer meets the valve component inside the hub and pushes it forward to actuate.  
• Utilize Luer lock versus Luer slip connector.  
• After initial Luer connection with the ViaValve® catheter, digital pressure will be needed when removing components to avoid blood reflux, as the valve will remain open. |

To learn more about ViaValve® safety IV catheters visit [www.smiths-medical.com](http://www.smiths-medical.com)