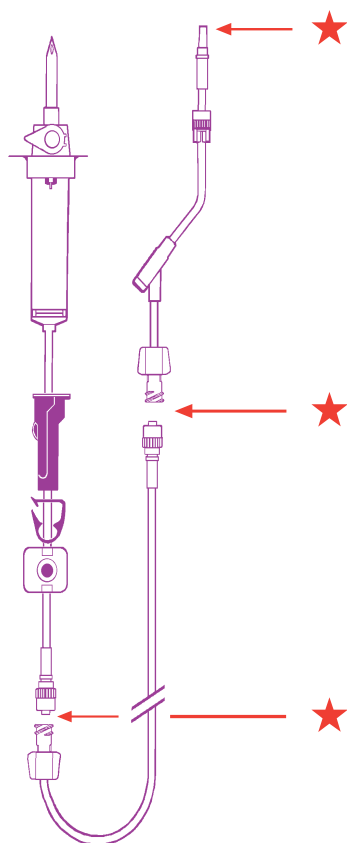


# Patient Safety: Using Non-Return valves



## Preventing back-flow in your infusion line ...

Inclusion of a one-way (check) valve at any point on a ModuFlo line minimises or prevents the risk of a number of problems we encounter commonly in practice. Their use improves patient safety, reduces nursing time and improves economy:

- Catheter occlusion due to micro back-flow of blood
- Blood loss due to damage to line proximal to valve
- Blood contamination of set proximal to valve



## Valve design and function

- Silicone disc valve with low opening pressure
- Allows flow of fluid and air
- Simple male & female luer connection to fit into any luer connection
- When **upstream** pressure is higher than downstream (**normal infusion**) the valve is open and fluid or air flows distally
- When **downstream** pressure is higher than upstream (occlusion or **back-flow**) the valve closes and prevents blood entering catheter or line
- Prime the valve with fluid prior to use. This minimises risk of back-flow or air embolism

**NOTE:** Our check valve is '**always open**'. It needs a cap placing proximal to it when a line is disconnected to prevent siphoning of air into the line distal to the valve. The simplest method is to use our needle-free valve



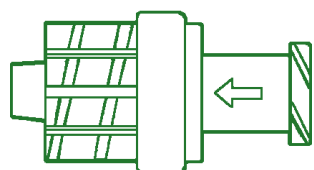
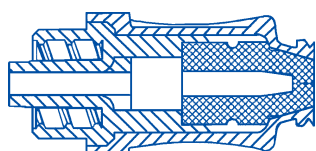
Check valve



Needle-Free valve



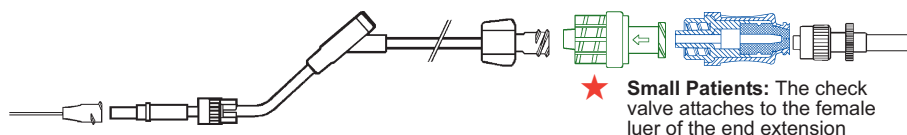
**infusion  
concepts**



## Check Valve Positioning & Use

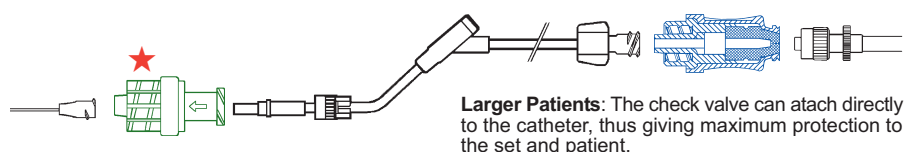
\* **Check valves provide the most protection when they are placed as close as possible to the patient \***

- Always ensure the check valve is **DOWN**stream of the closing cap or needle-free valve
- If positioned onto catheter, you should replace the check valve at every catheter change
- There should always be a cap positioned proximal to the valve when the set is disconnected from it. The simplest and safest way of doing this is to use our needle-free valve.
- Final position will depend on a number of factors such as patient size, risk factors to IV line and importance of occlusion resistance. The following guidance is suitable for most patients:



### Small patients

- ➔ Connect the valve into the end extension
- ➔ Allows full mobility
- ➔ Provides minimal bulk at catheter site



### Larger patients

- ➔ Connect the valve directly onto the catheter
- ➔ Provides maximum patient protection
- ➔ Extra bulk at catheter site is normally well tolerated by larger patients

**With ModuFlo sets, you do not need to worry about having end extensions etc in place when setting up your infusion; it's there already if you should need it**