

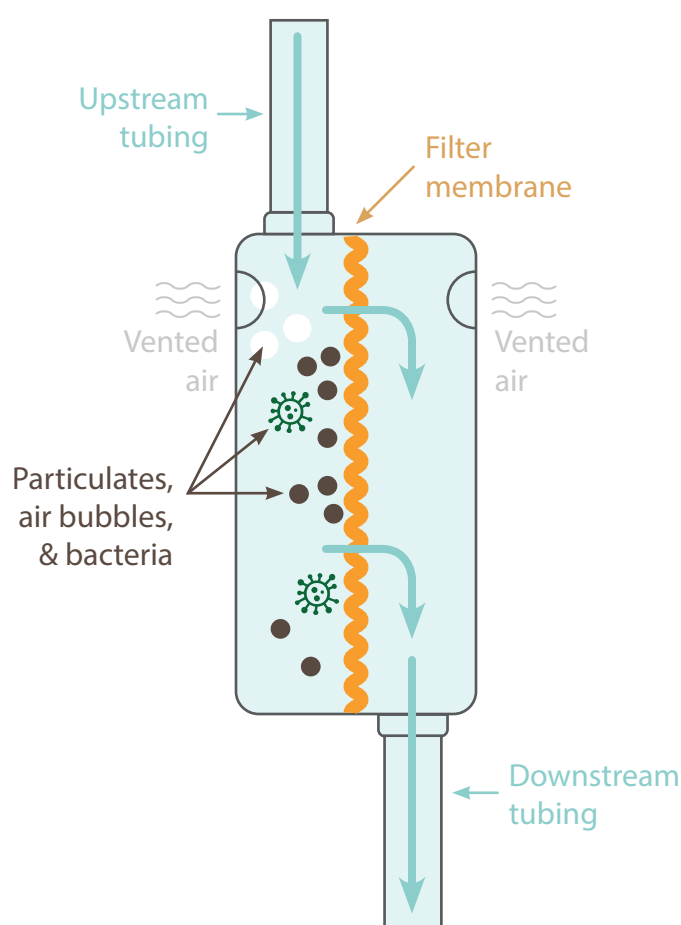
IV Filters - Guidelines & Best Practices

UNDERSTANDING HOW IV FILTERS WORK AND WHY THEY ARE USED

A filter is a small device on an IV tubing set that features a thin membrane that allows certain medications and fluids to pass through, while blocking potentially harmful substances, such as air, particulates, and pathogens. **Filters help keep patients safe by preventing air embolisms and health complications caused by particulates, and pathogens.**

HOW FILTERS WORK

Filters are designed to prevent microparticles (particulates), air bubbles, and bacteria from passing into a patient by passing fluid through a membrane located inside the filter housing.



As fluid passes through the filter, small pores in the thin membrane trap air and microparticles but allow fluid to pass through.

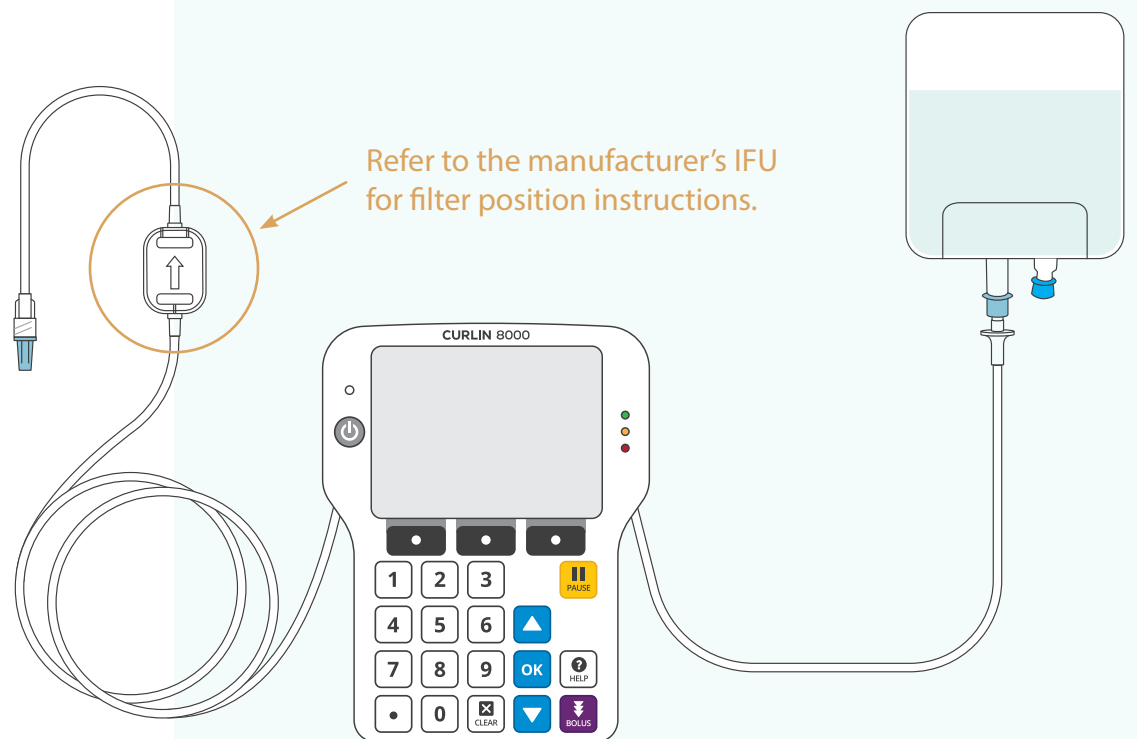


Some filters have air vents that allow air to escape. It is important not to cover the air vents during priming and drug/fluid administration.

PRIMING A FILTER

During priming, hold the filter in the correct position by following the manufacturer's instructions for use (IFU).

Some filters are primed in a vertical position (straight up and down), while others need to be inverted (upside down) to remove the air and fully wet the membrane.



After priming, remember to immediately close the slide clamp or roller clamp to prevent the filter from emptying and draining.



It is recommended that filters should be primed immediately before initiating an infusion, especially for parenteral nutrition.¹

IV FILTER BEST PRACTICES GUIDELINES

SELECTING A FILTER

Know what membrane pore size the medication or fluid manufacturer has specified, and select the correct filter for that specific use.

For example: 0.2 micron, 1.2 micron, or 170-260 micron for blood administration.

Pore size recommendations for protein-based medications, such as Ig and biologics vary greatly and may also require a low-protein binding membrane.

DURING USE

The filter should be maintained and secured at the level of the infusion site during use and as close to the VAD hub as possible.²

For filter use duration, consider both the drug / fluid manufacturer and the pump / set manufacturer guidelines. For example: the typical use interval for parenteral nutrition is 24 hours. Remember, filters are manufactured for single use, per the manufacturer's guidelines.

Additionally, an anti-siphon valve can be used to prevent back-siphoning and bolus delivery while using a filter, especially for pediatric patients and hemodynamic or microdose drugs.

PUMP SETTINGS

Consider the pump settings for air sensitivity when using an air-eliminating filter. Using the correct settings can help prevent air embolisms and nuisance air-in-line alarms.

Also consider downstream occlusion pump settings when using small bore filters.