Breakthrough Technology
That Reduces Reflux
To Help Maintain Catheter Patency

Neutron®
Needlefree Catheter Patency Device

The first and only FDA-cleared device shown to significantly reduce all types of reflux into a catheter and feature ICU Medical’s proven infection control technology.
Maintaining catheter patency and minimizing occlusions can be important steps in your efforts to enhance patient safety, improve patient outcomes, and reduce costs.

But despite your efforts, central line occlusions, which are frequently caused by blood reflux, remain a significant issue that can result in delays in critical patient care, increased risk of infection, and increased healthcare costs. That’s why reducing the risk of catheter occlusions may help you decrease the need for expensive declotting agents such as t-PA, and reduce the clinical costs associated with managing catheter occlusions.

Neutron’s breakthrough anti-reflux technology helps you stop occlusions before they start, while providing a safe and effective microbial barrier.

Unlike other technologies, such as positive displacement needlefree connectors, Neutron is the only device FDA-cleared to prevent all forms of reflux into a catheter and utilize ICU Medical’s patented needlefree connector technology which has been proven to minimize contamination and help you lower the risk of catheter related bloodstream infections (CRBSI).
Reducing catheter occlusions with the Neutron catheter patency device may provide real-time clinical benefits.

Avoid Delays in Critical Patient Care
Neutron may help avoid delays in therapy of critical intravenous medications (e.g., antibiotics and oncolytics), nutritional support, and blood products.

Avoid Patient Discomfort and Pain
Neutron may help avoid patient discomfort and pain caused by unnecessary needlesticks, catheter restarts, and manipulating the IV site.

Avoid Unnecessary Costs
Neutron may help minimize unnecessary costs that add up when treating an occlusion.

Help Reduce Risk of Infection
Neutron may help reduce the risk of infection by preventing thrombosis and minimizing IV line manipulation.

Designed to Prevent All Known Causes of Reflux into a Catheter
Reflux of blood into the catheter has been shown to contribute to biofilm formation and catheter occlusion.

Internal Causes
- Patient Vascular Pressure Changes Caused by:
  - Coughing
  - Sneezing
  - Movement
  - Crying

Reflux

External Causes
- Connection and Disconnection of a Luer
- IV Bag Running Dry or an Infusion Pump Stopping
- Syringe Plunger Rebound
Superior Anti-Reflux Technology

Because of an innovative design that incorporates a patented bi-directional silicone valve and bellows feature to help prevent reflux at all times, Neutron helps maintain catheter patency during times when traditional connectors have been shown to occlude most often.

Unlike other anti-reflux valves, Neutron’s patented technology provides the unique ability to absorb and physically compensate for pressure variations that typically result in blood reflux into a catheter.
Market-leading Infection Control Technology
Proven to Minimize Bacterial Contamination

Neutron can help your efforts to reduce bloodstream infections by minimizing entry points for bacteria and maximizing the effectiveness of every flush.

Silicone Seal and Internal Cannula
Specifically designed to minimize contact between the connector’s external surface and the internal fluid path upon luer activation, this proven Clave® technology minimizes entry points for bacteria. Several studies have attributed this feature to a significant reduction in bacterial contaminants passed through the connector.

Clear housing
permits visual confirmation of flush after use with medications or blood.

Split-septum
a preferred design feature for connectors.

Straight fluid path
for cleaning blood and blood residual with low flush volumes.

Minimal residual volume
(also referred to as priming volume) allows for lower flush volumes.
Add a Splash of Color
For Quick and Easy Line Identification.

Customize Neutron with a variety of color-coded rings to help you improve IV line management and avoid medication mix-ups.

Color-coded needlefree IV connector rings designed to help you:

› Increase patient safety and reduce the possibility of medication errors
› Quickly access the proper infusion port in emergency situations
› Improve connector change interval compliance with better needlefree connector identification

To learn how to put Neutron to work for you, contact us today by calling 800.824.7890 or by visiting icumed.com/neutron.

<table>
<thead>
<tr>
<th>Technical Specifications</th>
<th>Drug Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residual Volume</td>
<td>Alcohol</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Flow Rate at Gravity</td>
<td>Lipids</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Blood Compatibility</td>
<td>Chlorhexidine</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>MRI Compatibility</td>
<td>Chemotherapy</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>High Pressure Compatibility</td>
<td>10 mL/second</td>
</tr>
</tbody>
</table>

Neutron’s saline flush option allows you to reduce risks, cost, and time associated with Heparin use.