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Specialist in Innovative Safety Medical Products and Partner of Contracted Manufacturer

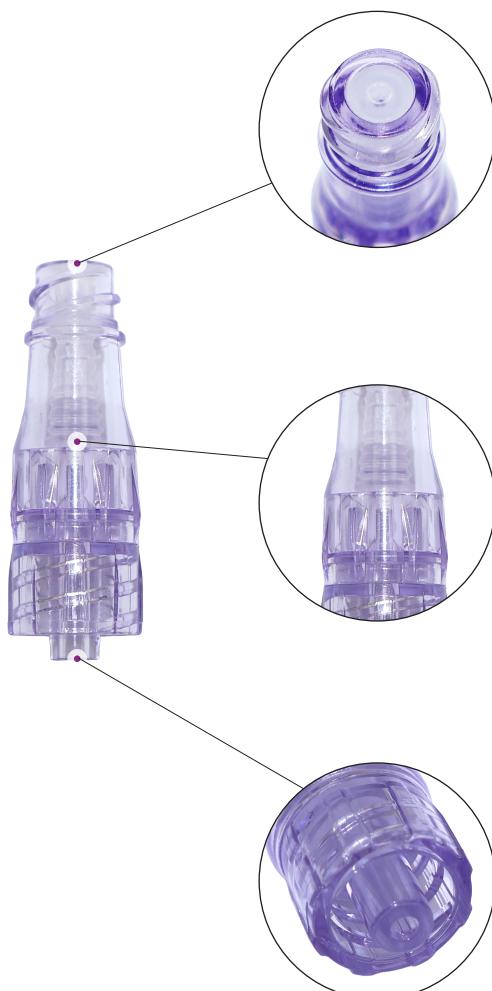
## Natural Needle-Free Connector



### A Safer , Smarter Infusion Connection

Nature Needle-Free connector offers a safe way to access IV lines without the use of a needle, which eliminate the risk of accidental needle stick injuries. It helps to reduce occlusions and minimal residual volume.

Maintaining catheter patency and minimizing occlusions can be important steps in your efforts to enhance patient safety and help reduce costs.



#### 1. Flat, Sealed, Lipid-resistant

The Nature Needle-free Connector design includes unique proprietary technology, with a flat, sealed, solid surface that helps prevent contamination and bacteria from entering the connector. Lipid resistant material help prevent cracking effectively.

#### 2. Clear Housing, straight fluid path

Clear housing to visualize connector flushing . Straight fluid path allows for efficient clearing of medications, blood, and blood residual with low flush volumes.

#### 3. Nature Displacement

Nature displacement prevents blood from entering the catheter upon disconnection, helping to reduce occlusions and minimal residual volume. Used on standard peripheral, arterial, and central venous catheters for blood draws or administration of IV medications.

# Natural Needle-Free Connector



## Key features:

- **Closed System with Reverse Split Septum**

Provides a strong microbial barrier to help reduce contamination risk.

- **Sealing Ring**

Improves the septum seal for reliable protection.

- **Neutral Displacement**

Designed so that when disconnected, there is minimal blood reflux. This lowers the chance of catheter occlusion and reduces the need for flushing/restoring.

- **Clear Housing & Straight Fluid Path**

Transparent design allows visual confirmation of flushing, and the straight fluid path helps reduce areas where bacteria could grow.

- **Small, Lightweight, Pediatric-Friendly**

Compact size with color coding (often orange) to minimize accidental disconnections; especially useful for neonatal and pediatric patients.

- **Durability**

Can be used continuously for up to 7 days and withstand up to 200 activations.

- **High Pressure Rating**

Withstands injection pressures up to 300KPA, making it compatible with power injectors.

- **Proven Infection Control**

Clinical studies show it is equally effective at preventing catheter colonization .

- **Materia**

TPU tube, PVC free, lipid resistance

## Summary Table

Feature	Benefit
Reverse split septum	Closed system, microbial barrier
Neutral displacement	Minimal blood reflux, fewer occlusions
Transparent + straight path	Easier flushing, clear visibility
Low priming volume	Accurate dosing, minimal drug waste
Durable (7 days / 200 uses)	Long-lasting, cost-effective
High pressure resistant	Safe for power injection
Infection prevention	Comparable to top competitors



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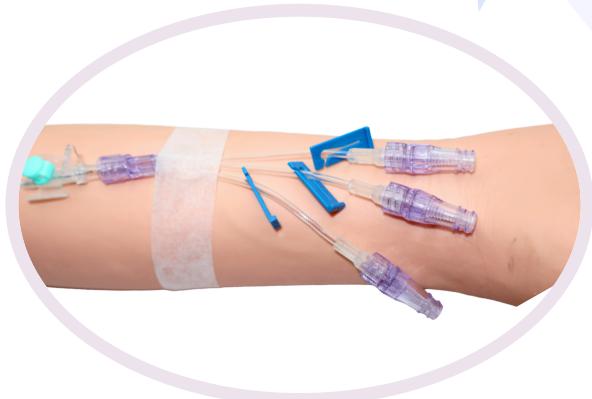
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## Applications of Neutral Needle-Free Connectors



### 1. Central Venous Catheters (CVCs)

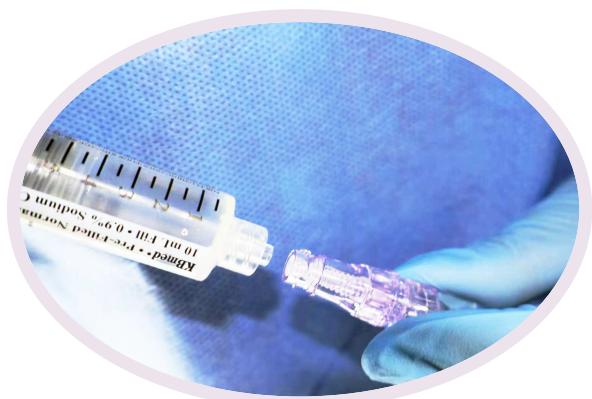
Commonly used in ICU, oncology, or long-term IV therapy. Neutral displacement helps minimize blood reflux → fewer occlusions and less need for thrombolytics.



Use with IV cannulae

### 2. Peripherally Inserted Central Catheters (PICCs)

For patients receiving antibiotics, chemotherapy, or parenteral nutrition. Neutral connectors are preferred to maintain line patency and reduce complications.



Use with prefilled syringe

### 3. Peripheral IV Catheters

For hospitalized patients with frequent medication/IV fluid administration.

Neutral connectors reduce blood reflux, lowering the risk of clotting.

### 4. Hemodialysis Catheters

Used between dialysis sessions.

Neutral connectors help prevent backflow of blood and reduce the chance of catheter blockage.

### 5. Pediatric & Neonatal Care

Especially valuable in neonates due to their very small blood volumes.

The low priming volume avoids unnecessary blood loss and medication waste.



### 6. Oncology / Chemotherapy Administration

Many oncology patients have long-term central lines. Neutral connectors lower infection risk and maintain reliable access for cytotoxic drugs.

### 7. Total Parenteral Nutrition (TPN)

Reduces the chance of catheter occlusion when delivering lipid-rich solutions

### 8. General IV Medication and Fluid Therapy

For routine hospital/clinical use where safety, reduced reflux, and infection prevention are important.

The connector could be disinfected by disinfection cap , and last 7days disinfection if not remove it.

# Why Neutral Needle-Free Connectors are Suggested



- Minimize blood reflux → reduces occlusions.
- Easy flushing → keeps the line clear.
- Safe for high-risk patients (pediatrics, oncology, ICU).
- Infection prevention → closed system with microbial barrier.

Neutral needle free connectors are most suggested for central lines (CVCs, PICCs), dialysis catheters, pediatric/neonatal IV therapy, and oncology/TPN patients, but they are also widely used in routine IV access to improve safety and reduce complications.

## Specification



Description	Code
Neutral Needle Free Connector Length 26.5mm	SafetysiteN
Neutral Needle Free Connector long type Length 32.5mm	SafetysiteNL
Extension tube with neutral needle free connector, 1way, female luer lock, male rotating luer lock, slide clamp, tube length 10cm OD 2.7mm ID1.6mm	ETN1210
Extension tube with neutral needle free connector, 1way, female luer lock, male rotating luer lock, slide clamp, tube length 15cm OD 2.7mm ID1.6mm	ETN1215
Extension tube with neutral needle free connector, 2way, female luer lock, male rotating luer lock, slide clamp, tube length 10cm OD 2.7mm ID1.6mm	ETN1310
Extension tube with neutral needle free connector, 2way, female luer lock, male rotating luer lock, slide clamp, tube length 15cm OD 2.7mm ID1.6mm	ETN1315
Extension tube with neutral needle free connector, 3way, female luer lock, male rotating luer lock, slide clamp, tube length 10cm OD 2.7mm ID1.6mm	ETN1410
Extension tube with neutral needle free connector, 3way, female luer lock, male rotating luer lock, slide clamp, tube length 15cm OD 2.7mm ID1.6mm	ETN1415

