



**Luer Lock Misconnections can be Deadly**  
*FDA Patient Safety News*

December, 2005

Luer fittings, connectors, and locks are small, inexpensive, and convenient. They're commonly used to connect many medical devices, components, and accessories. Unfortunately, because they're so easy to use, health care personnel may mistakenly connect the wrong devices and then deliver a substance through the wrong route. These kinds of errors can cause serious injury or even death.

Previously, we described incidents where tubing from a portable blood pressure monitor was mistakenly connected to the patient's IV line, causing fatal air emboli. In another case, an air supply hose from a pneumatic compression device was inadvertently hooked up to a needleless IV tubing port.

A recent FDA article in the journal *Nursing2005* reports on these and other types of misconnections between devices with luer connectors. In one case, while a patient was being repositioned, his I.V. tubing became disconnected. It was inadvertently reconnected to the inflation port of his tracheal cuff. The I.V. fluid infused into the cuff, causing an acute airway obstruction, and the patient suffered respiratory arrest and died.

In another example, a ventilator-dependent patient was receiving enteral nutrition after an aortic aneurysm repair. The enteral nutrition tubing was inadvertently connected to the patient's central line after a diagnostic test was performed. The patient received about 45 ml of enteral feeding solution intravenously.

The FDA article describes some precautions to help prevent these deadly mix-ups.

- First, teach staff to carefully inspect and then follow the proper connector sequence when connecting tubing and device components.
- Read and follow the equipment manufacturers' recommendations and precautions, especially about compatibility with other devices.
- Don't modify I.V. or feeding devices because doing so may compromise the safety features built into their design
- Consider using devices that are specifically designed for safety, to reduce the risk of misconnections.
- And tell patients and family members that they must ask clinical staff for help when they need to disconnect and reconnect equipment because they could easily connect the wrong devices.

**Download Video Webcast:**

<http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/psn/transcript.cfm?show=46#6>

**Additional Information:**

Eakle, M. et al "Luer-lock misconnects can be deadly". *Nursing2005*.  
[http://www.fda.gov/cdrh/psn/049\\_devicesafe.pdf](http://www.fda.gov/cdrh/psn/049_devicesafe.pdf)