

SPIROS™

C L O S E D M A L E C O N N E C T O R

For the Safe Preparation and Delivery of
Hazardous Medications



Spiros Closed Technology

- The Spiros creates a closed system to protect the integrity of the I.V. fluid container, whether it is on a syringe for transfer or on the end of an I.V. set.
- Creates a **needlefree** closed system for transfer and mixing. Upon disconnect, the Spiros automatically self seals and closes the system.

Spiros for Transfer and Preparation

- Place the Spiros on any syringe in order to do closed draws and transfers without the risk of drips or spills. The Spiros only opens when it is attached to a female connector, including needlefree connectors.
- Safely transport prepared syringes with hazardous medications throughout a facility.

Spiros Tubing Sets for Delivery

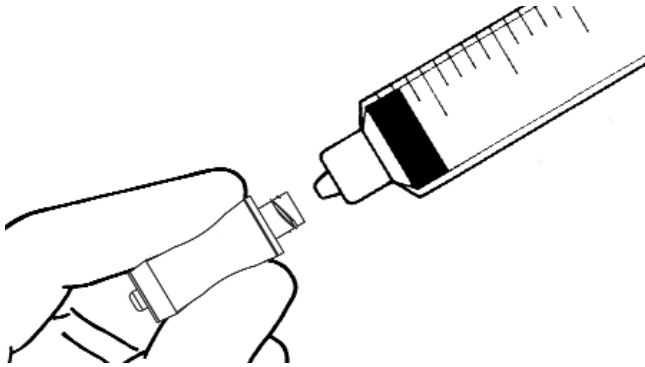
- The Spiros is available to be used on any Primary, Secondary or Extension set where a standard male luer might otherwise be.
- The Spiros will prevent spills from IV sets in the event of disconnect; accidental or intentional.
- Safely transport prepared IV sets with hazardous medications throughout a facility.

 **Simple. Safe. Secure.**

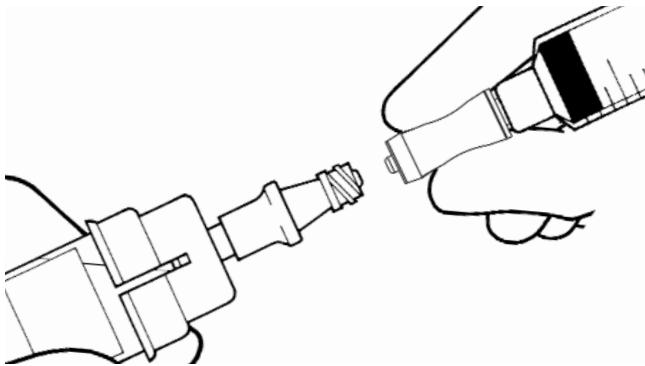
HOW TO USE SPIROS™

Spiros for Use as a Syringe Adapter

1. Open package and remove Spiros. Remove protective cover from female luer and discard.
2. Attach female luer of Spiros to syringe.



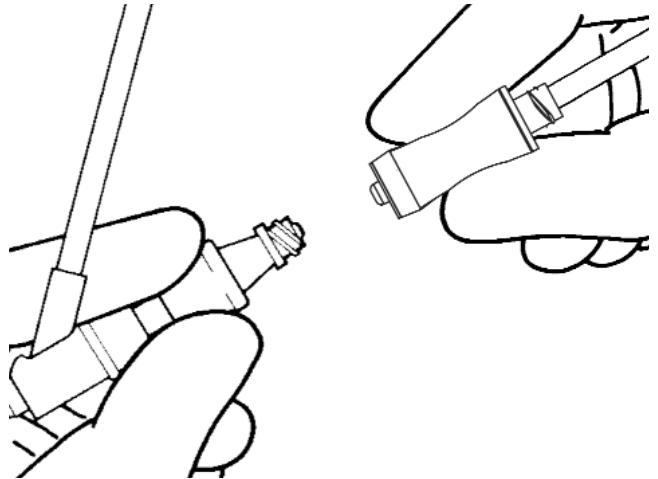
3. To aspirate fluid from container:
 - 3a. Grasp Spiros and attach to needlefree vial access device. Twist Spiros onto device until secure. Once attached, the Spiros fluid path is open and drug may be aspirated.
 - 3b. To remove, grasp Spiros and twist away from connector until loose. Upon disconnection, the Spiros fluid path is automatically closed.



4. To Infuse Fluid through Spiros
 - 4a. Grasp Spiros and attach to needlefree connector or female luer. Twist Spiros onto connector until secure. Once attached, the Spiros fluid path is open and fluid may be infused from the syringe.
 - 4b. Disconnect Spiros from connector by grasping and twisting away from connector until loose. Once disconnected, the Spiros fluid path is automatically closed.

Spiros on Tubing Sets

1. Open package and remove set. Spiros is supplied with a priming cap which opens the system and allows for standard priming procedures. Prime set per protocol.
2. Grasp the Spiros at end of tubing set and attach to a needlefree connector or standard female luer. Twist Spiros onto device until secure. Once attached, the fluid path becomes open.
3. Proceed with fluid administration.



4. Disconnect Spiros from connector by grasping and twisting away from connector until loose. Once disconnected, the Spiros fluid path is automatically closed. Discard Spiros tubing set in accordance with facility protocol.

THE PROBLEM: The short and long term effects from exposure to hazardous drugs are serious concerns for the healthcare provider or anyone who must live and work near these substances. NIOSH, OSHA, ONS and ASHP have all identified the problem and offer guidelines for the safe handling of these substances. The Spiros meets all of these guidelines as Personal Protective Equipment (PPE).

SHORT TERM EFFECTS OF EXPOSURE:

GI - Nausea, Vomiting, Diarrhea
Mucosa and Skin - Enteral Irritation, Respiratory Irritation and Cough, Dermatitis, Hair Loss
Neurological - headache, lightheadedness, vertigo, syncope
Reproductive - irregular menses

LONG TERM EFFECTS OF EXPOSURE:

Cancer - Leukemia
Reproductive - Infertility, Miscarriages, Birth Defects



ICU Medical, Inc.

951 Calle Amanecer, San Clemente, CA 92673, U.S.A.
Tel: +1 949 366 2183 • www.icumed.com

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