

Medication preparation



Medication delivery



Sharps disposal

Cardinal Health™ Monoject™ SmarTip™ Vial Access Cannulas

No needle means no needlestick



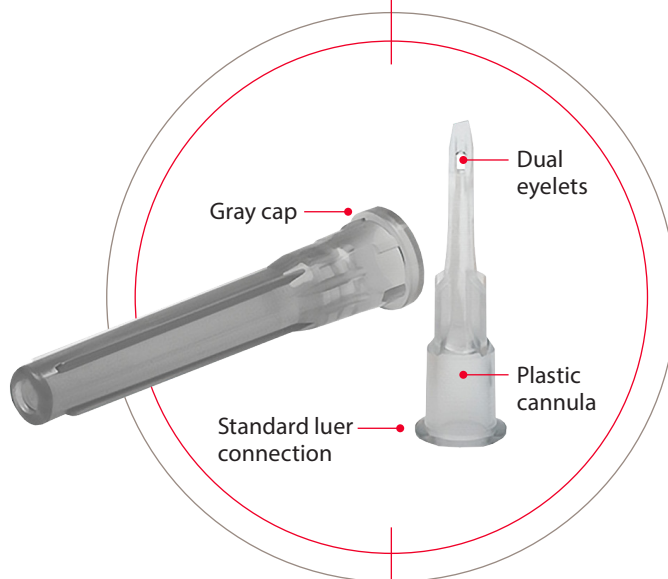
Patient and clinician safety starts with smart design

Preventing needlestick injuries is key to maintaining your facility's sharps safety protocol. In fact, Occupational Safety and Health Administration (OSHA) guidelines recommend avoiding the use of needles altogether where safe and effective alternatives are available.¹

Protect your staff and patients from needlesticks with Monoject™ SmarTip™ needless medication preparation technology from Cardinal Health.

Choose Monoject™ SmarTip™ Vial Access Cannulas

Developed to replace a variety of medication preparation needles in your sharps line with little training, the SmarTip™ Cannula is the needle-free solution that's superior by design.



Needless

for clinician safety

Plastic cannula engineered to help prevent accidental needlesticks



Anti-coring

for patient safety

Eliminates coring and particulate by piercing, not puncturing, the vial²



Efficient

medication draws

16-gauge equivalent flow rate and dual eyelets draw up even the most viscous medication from a vial easily and completely

Features:

- Soft pack packaging
- Not manufactured with DEHP or natural rubber latex
- Sterile, single use and individually packaged

Cardinal Health™ Monoject™ SmarTip™ Vial Access Cannulas

Designed to avoid accidental skin penetration

Compared with blunt and standard needles, the Monoject™ SmarTip™ Cannula:

135%

Requires 135% more force to penetrate than the BD™ Blunt Fill Needle³



Is less likely to penetrate the skin than the BD™ Blunt Fill Needle⁴

489%

Requires 489% more force to penetrate than a standard needle: 18 G x 1.5 in.⁵

2x

Requires twice as much force to penetrate than a blunt fill needle³



Proven to prevent coring and particulate generation

In an internal study, the Monoject™ SmarTip™ Cannula did not generate any particulate or cause coring when accessing a vial.² By comparison, incidences of coring among standard and blunt fill needles can be as high as 29%, putting nearly one in three patients at risk for an incidence of coring.⁶⁻⁸

Cross-study comparison of coring incidence

0%

SmarTip™ Vial Access Cannula
2016 study²

10.5%

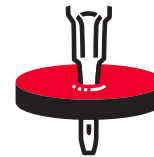
18 G needle
2012 study⁶

18%

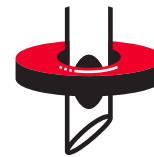
18 G needle
2001 study⁷

29%

BD™ Blunt Fill Needle
2015 study⁸



Monoject™ SmarTip™ Cannula pierces the vial



Standard and blunt fill needles puncture the vial

Ordering information

Order code	Description	Box qty.	Case qty.
8881540111	Needleless vial access cannula	100	1,000
8881540133	3 mL needleless vial access combination	100	800
8881540166	6 mL needleless vial access combination	100	400

For more information or to order Monoject™ Sharps Safety Products, contact your sales representative, call **800.964.5227** or visit **cardinalhealth.com/monoject**

Access the Monoject™ SmarTip™ Vial Access Cannulas instructions for use at **cardinalhealth.com/monoject/IFU**

References: 1. NIOSH. Alert: preventing needlestick injuries in health care settings. Cincinnati, OH: US Dept of Health and Human Services; 1999. <https://www.cdc.gov/niosh/docs/2000-108/pdfs/2000-108.pdf>. 2. Data on file. Cardinal Health, 2016. 3. BD™ Blunt Fill needle reorder #305180. DOF. 2016. 4. Based on internal test results using simulated skin. Data on file. Cardinal Health, 2016. 5. Monoject 18 Gage needle reorder # 11811022. DOF. 2016. 6. Campagna R, Pessi E, Guerini H, Feydy A, Drapé J. Occurrence of coring after needle insertion through a rubber stopper: study with prednisolone acetate. *Eur Radiol.* 2013;23(2):424-427. 7. Shiroyama K. The incidence of "coring" during aspiration of propofol from a 50-ml vial. *J Anesth.* 2001;15(2):120. 8. Gragasin FS, van den Heever ZAN. The incidence of propofol vial coring with blunt needle use is reduced with angled puncture compared with perpendicular puncture. *Anesth Analg.* 2015;120(4):954-955.

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