



BD Max needle-free connector technology



Others claim to reduce catheter-related complications.
We let the evidence speak for itself.



63% lower risk
of CLABSI¹

The BD MaxPlus™ Needle-free Connector was shown to reduce the risk of CLABSI by 63%, compared to other needle-free connectors, in a 2014 meta-analysis published in the *American Journal of Infection Control*¹



55.1% reduction
in occlusions²

In a retrospective observational study of 720 home infusion patients, the BD MaxZero™ Needle-free Connector reduced PICC* occlusion rates by 55.1% ($p=0.001$), compared to a leading neutral displacement connector²



The BD MaxPlus™ Needle-free Connector is the only needle-free connector with an FDA-cleared label statement demonstrating a reduction in CLABSI



Peer-reviewed



Significant sample size



Clinically demonstrated

10 peer-reviewed published studies support using BD Max needle-free connector technology in reducing catheter-related complications—more evidence than any other connector in the world.^{1–10}

[To know more, read our clinical evidence compendium here >](#)

*PICC: Peripherally Inserted Central Catheter



BD

Not all connectors are created equal

BD Max needle-free connector technology is designed with innovations to help you reduce catheter-related complications*

*Compared to other needle-free connector designs

The **only** technology with a patented flat, sealed, solid surface that **helps prevent contamination and bacteria from entering the connector** when disinfected with a 3-second scrub using 70% IPA



Fluid-filled design and clear housing enable clinicians to visualize the fluid pathway, **helping support effective flushing practice**



Positive displacement prevents blood from entering the catheter upon disconnection, **helping to reduce occlusions** and costly Alteplase use

We can help your facility upgrade to BD Max needle-free connector technology

SKU No.	SKU Name	Tubing	Length	Case Qty.
MP1000-C	BD MaxPlus™ Clear Needle-free Connector	N/A	1.3" (3.3 cm)	100
MZ1000-07	BD MaxZero™ Needle-free Connector	N/A	1.2" (3 cm)	100

And a variety of extension sets to customize infusion therapy for patients, such as:

MPX5300-C	Single fuse Extension Set, Y-port, bonded BD MaxPlus™ Needle-free Connector, pinch clamp, male luer spin collar	Standardbore	9" (23 cm)	50
MZ5302	Single fuse (one way) Extension Set, removable BD MaxZero™ Needle-free Connector, male luer spin collar	Minibore	7" (18 cm)	50
MZ9266	Tri-fuse (three way) Extension Set, bonded BD MaxZero™ Needle-free Connectors, red, white and blue slide clamps, male luer spin collar	Microbore	4" (10 cm)	50

[To view our entire catalog, click here >](#)

To place an order, and to assess your facility's infusion processes, **call your BD rep** or visit **BD.com/MaxZero**

References:

1. Tabak YP, Jarvis WR, Sun X, Crosby CT, Johannes RS. Meta-analysis on central line-associated bloodstream infections associated with a needleless intravenous connector with a new engineering design. *Am J Infect Control*. 2014;42(12):1278–1284. doi: 10.1016/j.ajic.2014.08.018. 2. Williams A. Catheter Occlusion in Home Infusion: The Influence of Needleless Connector Design on Central Catheter Occlusion. *J Infus Nurs*. 2018;41(1):52–57. doi: 10.1097/NAN.0000000000000259. 3. Wallace MC, Macy DL. Reduction of Central Line-Associated Bloodstream Infection Rates in Patients in the Adult Intensive Care Unit. *J Infus Nurs*. 2016;39(1):47–55. doi:10.1097/NAN.0000000000000151. 4. Costello JM, Morrow DF, Graham DA, Potter-Bynoe G, Sandora TJ, Laussen PC. Systematic intervention to reduce central line-associated bloodstream infection rates in a pediatric cardiac intensive care unit. *Pediatrics*. 2008;121(5):915–923. doi: 10.1542/peds.2007-1577. 5. Tabak YP, Johannes RS, Sun X, Crosby CT, Jarvis WR. Innovative Use of Existing Public and Private Data Sources for Postmarketing Surveillance of Central Line-Associated Bloodstream Infections Associated With Intravenous Needleless Connectors. *J Infus Nurs*. 2016;39(5):328–335. doi:10.1097/NAN.0000000000000185. 6. Sandora TJ, Graham DA, Conway M, Dodson B, Potter-Bynoe G, Margossian SP. Impact of needleless connector change frequency on central line-associated bloodstream infection rate. *Am J Infect Control*. 2014;42(5):485–489. doi:10.1016/j.ajic.2014.01.022. 7. Royer T. Implementing a better bundle to achieve and sustain a zero central line-associated bloodstream infection rate. *J Infus Nurs*. 2010;33(6):398–406. doi: 10.1097/NAN.0b013e3181f8586b. 8. Casey AL, Karpanen TJ, Nightingale P, Chaganti S, Elliott TSJ. Microbiologic contamination of a positive- and a neutral-displacement needleless intravenous access device in clinical use. *Am J Infect Control*. 2016;44(12):1678–1680. doi: 10.1016/j.ajic.2016.06.027. 9. Clavier T, Ferguen M, Gouin P, et al. Impact of MaxZero™ needle-free connector on the incidence of central venous catheter-related infections in surgical intensive care unit. *Aust Crit Care*. 2019;32(2):107–111. doi: 10.1016/j.aucc.2018.03.003. 10. Hankins R, Majorant OD, Rupp ME, et al. Microbial colonization of intravascular catheter connectors in hospitalized patients. *Am J Infect Control*. 2019;47(12):1489–1492. doi: 10.1016/j.ajic.2019.05.024.

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