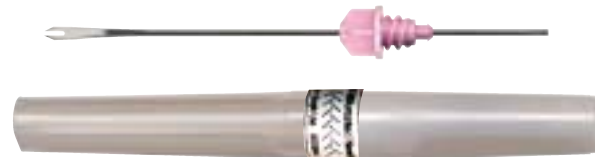


## BD™ Bifurcated Needle

### Product Specifications

- **Dose Delivery:** Equivalent to device used in WHO Smallpox Eradication Programme.
- **Needle Tip Configuration:** US Patent #3,194,237 (Rubin)
- **Cannula Size:** 0.038 inch/.965 mm diameter, solid type 305 stainless steel
- **Total Length:** 2.6 inches / 6.6 cm
- **Needle Hub:** integrated bond – shielded by BD Hardpak™
- **Two BD Hardpak™ Shields:** front (vaccination needle) and back (non-patient side)
- **Major Components:**
  - ✓ Polystyrene Hub
  - ✓ Stainless Steel Cannula
  - ✓ Polypropylene Needle Shield
  - ✓ Polyethylene Non-Patient Side Shield

Available Product Model Numbers:*			UNITS
301754	Bifurcated Needle	100 pack (BD Hardpak™ Design)	100/shelfcarton – 1,000/case
301755	Bifurcated Needle	100 pack (BD Hardpak™ Design)	100/shelfcarton – 1,000/case €€
301756	Bifurcated Needle	Bulk (BD Hardpak™ Design)	3,000/Case
301757	Bifurcated Needle	Bulk (BD Hardpak™ Design)	3,000/Case €€



BD™ Bifurcated Needle  
(actual size)



BD™ Waste Disposal  
Solutions\*

## Making a World of Difference

BD (Becton, Dickinson and Company) is a medical technology company, which has served healthcare institutions, life science researchers, clinical laboratories, industry and the general public for over 100 years. This experience has kept us at the forefront of discovery and innovation. It has also helped to put dynamic products in the BD pipeline that are eagerly awaited by the government, the armed forces and the entire healthcare industry.

We manufacture and sell a broad continuum of medical supplies and devices, laboratory equipment and diagnostic products. Through these products, we broadly serve the world in many important ways. Our goal is to eliminate unnecessary suffering and death from disease, and in so doing, become one of the greatest healthcare companies in the world.

Visit us at: [www.bd.com/immunization](http://www.bd.com/immunization)



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\*Please consult your local sales representative for product availability.

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Indispensable to  
human health

Our Biodefense tools are at  
work in every imaginable setting

BD™ Bifurcated Needle

# Introducing the BD™ Bifurcated Needle

## Simple Yet Effective

The BD™ Bifurcated Needle has been developed specifically for the optimal delivery of smallpox vaccine. Unique features make it the right medical device for either large-scale immunization campaigns or emergency response.


### Features:

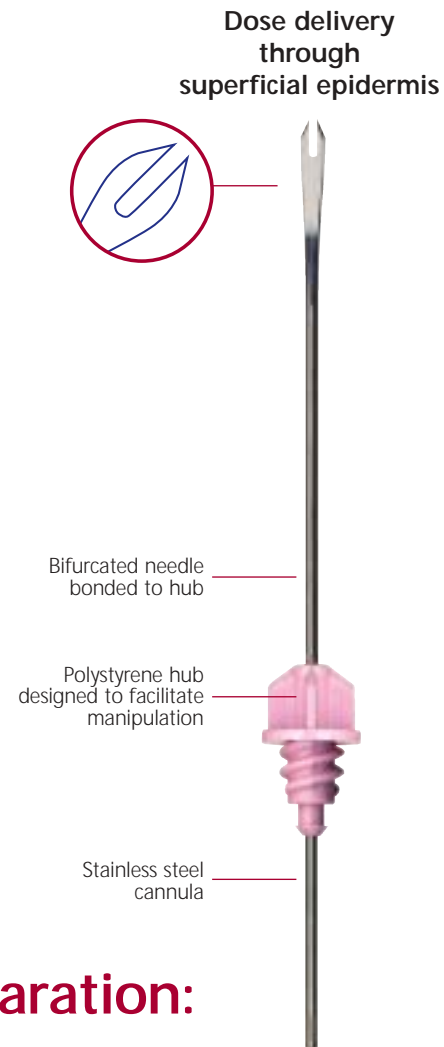
- Integrated needle/hub design based on clinically proven BD technology<sup>1</sup>
- Dose delivery of droplet between two tines
- Self-contained tamper-evident hard package
- Small and compact size
- Long shelf-life
- Non-pyrogenic non-toxic components
- Stainless steel needle
- Needle dimensions engineered to perform with equivalence to device used by WHO's Global Smallpox Eradication Programme

### Benefits:

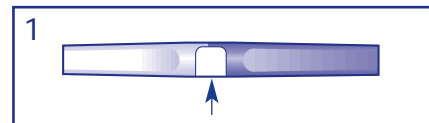
- Designed to provide ease of use regardless of geographic location
- Packaging maintains sterility and prevents contamination
- Designed for ease in handling, shipping and storage (including vaccine cold chain, if desired)
- High quality, low cost, and reliable supply
- Flexible order quantities (bulk and limited)
- Designed for easy disposal in BD™ sharps containers
- Design facilitates automated vaccine bundling for pharmaceutical company needs

### Certificates and Market Clearances:

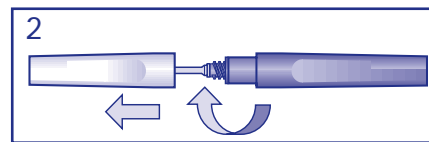
- 510k, Food & Drug Administration (FDA)
- CE-Mark 
- ISO Certified



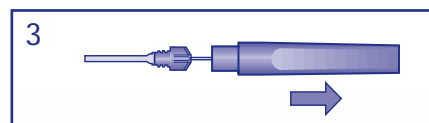
## Needle Preparation:



- Look for tamper evident label. Discard if torn, damaged or missing.



- Twist and pull cover off.



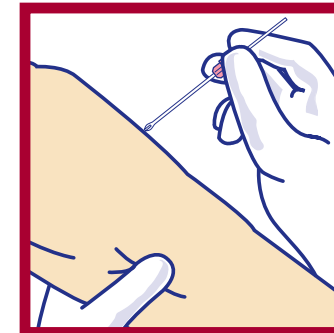
- Holding hub, pull shield straight off BD™ Bifurcated Needle.
- Administer vaccine (see next page).
- Discard in approved sharps container after single use in accordance with applicable regulations.
- Do not recap contaminated needles.

## Vaccination Guidelines\*:



### Vial Administration:

- Remove seal from vial. Gloves should be worn.
- Place BD™ Bifurcated Needle into vial of reconstituted vaccine.
- On withdrawal, a droplet of vaccine is contained between tines.



### Skin Application:

- Hold needle at 90° angle to the skin to administer vaccine droplet.
- Apply multiple-puncture technique (~15 strokes).
- Confirm visual trace of blood.
- Wipe off any remaining vaccine with sterile gauze.
- Apply appropriate dressing.

The skin over the insertion of the deltoid muscle or the posterior aspect of the arm over the triceps muscle are the preferred sites for smallpox vaccination. Alcohol or other chemical agents are not required for skin preparation for vaccination unless the area is grossly contaminated. If alcohol is used, the skin must be allowed to dry thoroughly to prevent inactivation of the vaccine by the alcohol.

The multiple-puncture technique uses a presterilized BD™ Bifurcated Needle that is inserted vertically into the vaccine vial, causing a droplet of vaccine to adhere between the prongs of the needle. The droplet contains the recommended dosage of vaccine, and its presence within the prongs of the BD™ Bifurcated Needle should be confirmed visually.

Holding the BD™ Bifurcated Needle perpendicular to the skin, 15 punctures are rapidly made with strokes vigorous enough to allow a trace of blood to appear after 15–20 seconds.

Any remaining vaccine should be wiped off with dry sterile gauze and the gauze disposed of along with the BD™ Bifurcated Needle in a biohazard waste container. An appropriate dressing should be applied.

\*Vaccination guidelines adapted from WHO, CDC and ACIP/Advisory Committee On Immunization Practices. Always administer vaccine according to instructions of vaccine manufacturer and/or recognized clinical organizations.

Dr. Fred Murphy, Sylvia Whitfield  
Microscopic image of smallpox virus

## Finding REAL Solutions

## Facts About Smallpox

Smallpox infection was eradicated from the world in 1977. Smallpox is caused by the variola virus. The incubation period is about 12 days (range: 7 to 17 days) following exposure. Initial symptoms include high fever, fatigue, and head and back aches. A characteristic rash, most prominent on the face, arms, and legs, follows in 2-3 days. The rash starts with flat red lesions that evolve at the same rate. Lesions become pus-filled and begin to crust early in the second week. Scabs develop and then separate and fall off after about 3-4 weeks. The majority of patients with smallpox recover, but death occurs in up to 30% of cases.

Smallpox is spread from one person to another by infected saliva droplets that expose a susceptible person having face-to-face contact with the ill person. Persons with smallpox are most infectious during the first week of illness, because that is when the largest amount of virus is present in saliva. However, some risk of transmission lasts until all scabs have fallen off.

In people exposed to smallpox, the vaccine can lessen the severity of or even prevent illness if given within 4 days after exposure. Vaccine against smallpox contains another live virus called vaccinia. The vaccine does not contain the smallpox virus.

There is no proven treatment for smallpox but research to evaluate new antiviral agents is ongoing. Patients with smallpox can benefit from supportive therapy (intravenous fluids, medicine to control fever or pain, etc.) and antibiotics for any secondary bacterial infections that may occur.

### References:

1. Fenner F, Anderson DA, Arita I, Jezek Z, Ladnyi ID. Smallpox and its eradication. Geneva, Switzerland: World Health Organization, 1988.
2. Henderson DA, Inglesby TV, Bartlett JG, et al. for the Working Group on Civilian Biodefense. Smallpox as a biological Weapon: medical and public health management. JAMA 1999;281:2127-37
3. Centers for Disease Control and Prevention, Vaccinia (Smallpox) vaccine. Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2001. MMWR Morbidity and Mortality Weekly Report 2001. Vol. 50(RR-10), 15-17.