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- Certified in Infection Control and Healthcare Quality

**Needlesticks & Bloodborne Pathogens**

**and the Risks they Pose to Recycle & Waste Center Workers**

# HOME INJECTIONS

- 9 million Americans use needles or other sharps at home
- Generating each year
  - 3 billion used needles and other sharps
  - 900 million lancets
- Patients are not well educated as to how to dispose of their home-generated sharps

# MEDICAL CONDITIONS AND HOME-ADMINISTERED MEDICATIONS

- Diabetes
- Allergies
- Arthritis
- Cancer
- Hepatitis
- HIV/AIDS
- Infertility
- Migraines
- Multiple sclerosis
- Osteoporosis
- Blood clotting disorders
- Psoriasis
- Growth hormone disorders
- Pain control
- Autoimmune disorders

# SHARPS

Medical term for devices with sharp points or edges that can puncture or cut skin

## Examples:

Needles

Syringes

Lancets

Auto Injectors

Infusions sets

Connection needles/sets











# HIV

- **Over 1.1 million persons are living with HIV infection in the United States**
- **No vaccine**
- **No cure**
- **Risk of infection following exposure**
  - **0.3% (or about 1 In 300)**

# HIV



Lynda Arnold, RN

- May 1992 – received her Nursing degree
- September 1992 infected with HIV from a needlestick

Photo © 1990 Therese Frare

# HIV

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- **Very fragile virus**

# HEPATITIS B

## BLOODBORNE PATHOGENS

- **Approximately 800,000 to 1.4 million persons have chronic HBV infection in the United States**
  - **3,000 chronic liver disease deaths associated with HBV**
- **Effective vaccines available**
- **Risk of infection following exposure**
  - **0% if vaccinated**
  - **6 – 30% if susceptible**
- **Very hearty virus**

# HEPATITIS B



# HEPATITIS C

## BLOODBORNE PATHOGENS

- **Approximately 2.7 – 3.9 million persons have chronic HCV infection in the United States**
  - **12,000 chronic liver disease deaths associated with HCV**
- **There is no vaccine**
- **Risk of infection following exposure**
  - **1.8 – 7% depending on the study**
- **Very hearty virus**

# HEPATITIS C



*"if [this photo of me in the end stage of Hepatitis C] could serve to improve the outcome of this devastating disease for others....."*

# BLOODBORNE PATHOGENS

Human  
Immunodeficiency  
Virus (HIV)

Hepatitis B Virus  
(HBV)

Hepatitis C Virus  
(HCV)

Blastomycosis

Brucellosis

Cryptococcosis

Cutaneous  
gonorrhea

Diphtheria

Herpes

Malaria

Mycobacteriosis

*Mycoplasma  
caviae*

Rocky Mountain  
spotted fever

Sporotrichosis

*Staphylococcus  
aureus*

*Streptococcus  
pyogenes*

Syphilis

Tetanus

Toxoplasmosis

Tuberculosis

# IN SUMMARY



**The Risk**

**Depends on many variables**



## Workplace Safety & Health Topics



### Workplace Safety and Health Topics

Industries & Occupations

Hazards & Exposures

Diseases & Injuries

Bloodborne Infectious Diseases (HIV/AIDS, Hepatitis B & C)

Emergency Needlestick Information

Universal Precautions for Preventing Transmission of Bloodborne Infections

General Resources on Bloodborne Pathogens

Preventing Needlesticks and Sharps Injuries

Engineering Controls and Personal Protective Equipment (PPE)

Management and Treatment Guidelines

Occupations Affected by Bloodborne Diseases

[NIOSH](#) > [Workplace Safety and Health Topics](#) > [Diseases & Injuries](#)

> [Bloodborne Infectious Diseases \(HIV/AIDS, Hepatitis B & C\)](#)

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# BLOODBORNE INFECTIOUS DISEASES: HIV/AIDS, HEPATITIS B, HEPATITIS C

## Safe Community Needle Disposal

Individuals living in the community use needles and syringes to treat medical conditions or to inject illegal drugs. Workers such as waste haulers, recycling plant workers, janitors, housekeepers, and sewage treatment workers can experience needlestick injuries when used needles are improperly disposed of. Members of the general public, including children, can also be exposed. The following websites provide resources for properly disposing of used syringes and needles.

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- Print page
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### View Related Topic in

[Español \(Spanish\)](#)

### Contact Us:

[National Institute for Occupational Safety and Health \(NIOSH\)](#)

Centers for Disease Control and Prevention

800-CDC-INFO

(800-232-4636)

TTY: (888) 232-6348

New Hours of Operation  
8am-8pm ET/Monday-Friday  
Closed Holidays

[Contact CDC-INFO](#)



## Medical Devices



[Home](#) > [Medical Devices](#) > [Products and Medical Procedures](#) > [Home Health and Consumer Devices](#)

Products and Medical Procedures

Home Health and Consumer  
Devices

Consumer Products

# Needles and Other Sharps (Safe Disposal Outside of Health Care Settings)

This webpage gives tips for safely disposing (getting rid of) needles and other sharp devices that are used outside of health care settings. Patients and caregivers should keep these tips in mind when at home, at work, and while traveling.

## Importance of Safe Sharps Disposal

Used needles and other sharps are dangerous to people and pets if not disposed of safely because they can injure people and spread infections that cause serious health conditions. The most common infections are:

- Hepatitis B (HBV),
- Hepatitis C (HCV), and
- Human Immunodeficiency Virus (HIV).

Safe sharps disposal is important whether you are at home, at work, at school, traveling, or in other public places such as hotels, parks, and restaurants.

**Never place loose needles and other sharps (those that are not placed in a sharps disposal container) in the household or public trash cans or recycling bins, and never flush them down the toilet.** This puts trash and sewage workers, janitors, housekeepers, household members, and children at risk of being harmed.

Pet owners who use needles to give medicine to their pets should follow the same sharps disposal guidelines used for humans.

## Sharps & Medication

- [Disposal Facilities for Sharps & Medication](#)
- [Sharps Home](#)
- [Medication Home](#)
- [Household Sharps Disposal](#)
- [Household Medication Disposal](#)
- [Sharps Manufacturer & Collector Resources](#)
- [Medication Manufacturer & Collector Resources](#)

## Related Topics

- [HHW Home](#)
- [Health Care Industry](#)
- [Grant Information](#)
- [Resources](#)
- [Events](#)
- [Electronic Product Mgmt.](#)
- [Used Oil Recycling](#)

## Household Hazardous Waste Sharps Waste Disposal

The Department of Resources Recycling and Recovery (CalRecycle) is working to help develop a safe, convenient, and cost-effective infrastructure for collecting and properly disposing of home-generated sharps waste. Decreasing the number of sharps disposed in landfills will help prevent potential health risks to landfill and material recovery facility workers. CalRecycle's [Waste Prevention Information Exchange](#), [Health Care Waste at Home](#) provides more information about how to appropriately manage other health care waste at home. You may also want to consult with the [California Department of Public Health](#), which regulates medical waste (see [definitions](#) below) through their [Medical Waste Management Program](#).

- [Household Sharps Waste Disposal](#). Learn how to safely dispose of your home-generated sharps waste.
- [Sharps Manufacturer and Collector Resources](#). Resources to help sharps manufacturers and collectors implement safe and efficient collection and disposal of home-generated sharps.
- [Pharmaceutical Manufacturer Sharps Disposal Plans](#). Learn about the law, SB 486, and view a list of manufacturers' sharps collection and disposal plans that CalRecycle has received.

### The Problem

A 2008 study titled, [Characteristics of persons and jobs with needlestick injuries in a national data set](#), (J. Paul Leigh, PhD, et al) suggested that "nationwide each year 25 percent or roughly 150,000 to 200,000 needlesticks occurred outside the health services industry for a cost of \$38 million."



[Hundreds of needles found at a Clark County Recycling Center](#) Video, Fox 12, Oregon, 2 min, 36 sec.

### Definitions

### Program News...

- [Pharmaceutical manufacturers' sharps plans have been published as required by Senate Bill 486.](#)



Europe > Safety > BD Safety Products > Sharps Disposal Systems

## SAFETY

Safety and BD

BD Safety Programme

### BD Safety Products

Blood Collection

Infusion Therapy

Hypodermic Injection

BD Sharps Disposal  
Systems

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## SHARPS DISPOSAL SYSTEMS



Appropriate sharps disposal is the "first step" in creating a safer work environment for healthcare professionals. Moreover, more than a billion insulin syringes, needles, and lancets are used for diabetes care at home each year.

If they are not disposed of properly, these items, known as "sharps", can injure healthcare workers and other people.

BD offers several convenient options for safe, compliant sharps disposal



United States > Diabetes > BD Products > Disposal Products > BD™ Home Sharps Container

## DIABETES

Diabetes Learning  
Center

## BD Products

BD Products Home

Insulin Syringes

BD Nano™ 4mm  
Pen Needles

Lancets

## Disposal Products

BD™ Home Sharps  
Container

BD™ Sharps  
Disposal By Mail

BD Safe-Clip™  
Needle Storage  
Device

Sharps Disposal  
Guidelines by State

BD Safe-Clin™ by

## BD™ HOME SHARPS CONTAINER

Designed to hold both insulin syringes and pen needles, the BD™ Home Sharps Container is a leak-proof and puncture-resistant container for safe, convenient disposal of used sharps.

It has a permanently locking, snap-top lid and holds 70 to 100 insulin syringes or 300 pen needles.

The syringe capacity depends on the size of the syringe being disposed of.

Please note that the container is made for disposal of insulin syringes and pen needles only. Other types of syringes do not fit.

The rules and regulations regarding sharps disposal may be different in towns and counties around the country, so check with your local sanitation or health department. When the BD™ Home Sharps Container is full, seal it and check with your community how to dispose of it properly. If, as a last resort, you choose to put it in a trash receptacle, do not place it in a recycling bin because insulin syringes, pen needles and lancets are not recyclable.

This product is available at pharmacies. If it is not on the shelf, it can be ordered by the pharmacist. Prices are set at the retail level and vary from store to store.



# Eli Lilly's Safe Sharps Disposal Plan

Eli Lilly and Company supports the proper disposal of syringes, needles, and other sharps generated in a home setting to mitigate potential public health and environmental risks. Lilly produces medicines that may be injected by patients using a syringe and needle or a pen-type injection device.

## Disposal Instructions for Consumers

**Injection Devices:** Disposable pen-type injection devices should be thrown away without the needle attached. Once the needle is removed, pen devices can be safely disposed of in household trash. These devices should not be recycled.

**Vials and Cartridges:** Empty insulin vials and cartridges can be disposed of in household trash. Do not recycle these items.

**Sharps:** Consumers should store used syringes and pen needles in an approved sharps container. Keep sharps containers out of the reach of children. Full containers should be disposed of in compliance with federal, state, and local laws and regulations.<sup>1</sup> Sharps containers should not be recycled.

The U.S. Environmental Protection Agency provides information on sharps disposal and outlines the following existing programs for patients<sup>2</sup>:

- **Drop off collection sites:** Consumers with home generated sharps can drop off sharps to disposal sites, including doctors' offices, hospitals, health clinics, pharmacies, police and fire stations, and medical waste facilities that offer this service.
- **Mail-back programs:** Many sharps manufacturers also manufacture sharps containers approved to be sent through the mail by the U.S. Postal Service. States have considered programs where consumers may contact sharps manufacturers to obtain containers for safe disposal. For a list of companies offering approved mail-back sharps products visit: <http://www.cdph.ca.gov/certlic/medicalwaste/Documents/MedicalWaste/SharpsMailBackList.pdf>.
- **At-home needle destruction devices:** Many manufacturers sell devices that will sever, burn, or melt the needle, rendering it safe for disposal. For more information, check with your pharmacist or health care provider.

<sup>1</sup>U.S. Environmental Protection Agency. Community Options for Safe Needle Disposal. Accessible at: <http://www.epa.gov/wastes/nonhaz/industrial/medical/med-govt.pdf>

<sup>2</sup>U.S. Environmental Protection Agency. Disposal of Medical Sharps. Accessible at: <http://www.epa.gov/wastes/nonhaz/industrial/medical/disposal.htm>

 **BUY** sharps containers **LEARN** about us **CONTACT** Stericycle**Containers, Mailback & Products**

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- Other Waste Containers
- Mailback Systems
- PPE & Infection Control
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## Home Sharps Container Mailback Kit

The Stericycle Sharps Mailback Disposal Service is ideal for you and your family, if you manage a medical condition at home with insulin or other injections or infusions.

### Your Sharps Container AND a Way to Dispose of It

Home-generated needles, lancets, and syringes are called "sharps" by your doctor, nurse, and other healthcare professionals. Our home sharps kit not only includes a sharps container for your needle or syringe disposal, but also a way to safely DISPOSE of the container once you fill it — unlike sharps containers you can purchase at your local pharmacy.

### Choose an Environmentally Responsible Way to Dispose of Your Sharps

Sharps that are disposed of as household waste present a great risk to sanitation and sewage treatment workers, janitors, housekeepers, children, and pets. Our home needle disposal kits can help keep you and your community safe.

Some state governments have set guidelines about throwing out needles. California, for example, now prohibits disposal of needles in regular household waste.

### Be Confident in the Protection of Your Home Sharps Disposal

Our all-in-one mailback kits comply with government and USPS regulations and are specially designed for mailing needles, syringes, lancets, and other sharps waste.

Your convenient, all-in-one home needles disposal kit includes:

- Specially Designed Sharps Container
- Postage-prepaid shipping box
- Pre-addressed shipping labels
- Simple sharps disposal form
- Confidential disposal

Once the container is full, you complete the simple sharps disposal tracking form and ship the container back to Stericycle in the provided box. We properly document, treat, and dispose the sharps container and its contents.

It's convenient, safe, and confidential.

For the safety of our Stericycle workers, we only accept home mailback containers provided by Stericycle.

### Buy Home Sharps and Needle Disposal Mailback System

 **Connect with us**

# IN SUMMARY

## The Risk

Depends on many variables

## The Scope

150,000-200,000 occur outside of health care  
– includes solid waste workers

## The Cost

\$500 - \$1.7 million per needlestick

## The Solution

Multifaceted

# SHARPS INJURY PREVENTION PROGRAM

- **Patient Awareness and Education**
  - Proper disposal of sharps
  - Risk associated with improper disposal
- **Safe and Appropriate Equipment**
  - Safety needles
  - Sharps Disposal Containers
- **Employee Safety**
  - Training
  - Use of Personal Protective Equipment (PPE)
  - Vaccination
- **Employee Reporting of Incidents**
  - Ensure appropriate follow-up

