



# Prevent Needlestick Injuries

You owe it to yourself... and your family

**PREMIER**

© 2007



## A look at needlestick facts

- One out of five healthcare workers sustain a needlestick injury every year
- Serious or fatal infections like HIV and hepatitis B and C have been acquired from needlesticks
- Safety devices prevent needlesticks
- Safety devices are the law - employers must provide them

**Learn how to  
protect yourself**



## Needlestick injuries happen

### What is a needlestick?

A "needlestick" means a break in the skin from a needle or other "sharp" such as a scalpel.

### What infections are caused by needlestick injuries?

An injury from a contaminated needle exposes workers to bloodborne pathogens that can cause serious or fatal infections.

The most serious infections are:

- HIV
- Hepatitis B
- Hepatitis C

### How common are needlestick injuries?

It is estimated that more than 800,000 injuries occur annually in the United States from needles and other sharps.

More than half of these injuries are never officially reported. You should always report your injuries to your employer immediately to ensure that you receive proper follow-up medical care.

### Where do these injuries occur?

These injuries have been reported from all healthcare settings, including:

- Ambulatory settings
- Physician offices
- Nursing homes, skilled nursing facilities
- Home health/assisted living
- Hospitals

### Who is at risk?

You are at risk of injury or infection if you handle sharps, such as, hypodermic needles, IV catheters, phlebotomy devices, suture needles, scalpels, or lancets. Nurses, phlebotomists, physicians, physicians' assistants, technicians and public health and safety workers may be at risk because of the type of work they perform.



### You are at risk



## Why is a needlestick stressful to you and your family?

**Needlesticks can be very upsetting and stressful to both you and your family. Following the injury, a series of actions are necessary:**

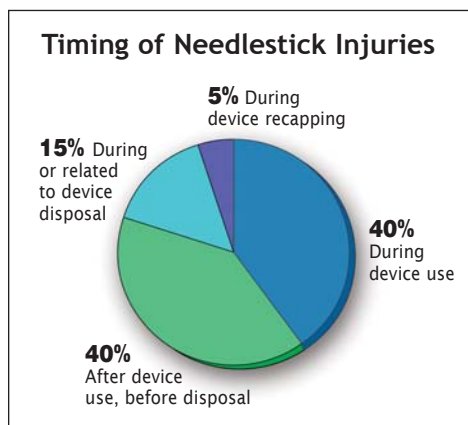
- Seek immediate medical help to assess the risk of developing an infection
- Determine if the patient on whom the needle was used has HIV, hepatitis B or hepatitis C infection
- Wait for the results of your own blood tests and information on the patient
- Determine with a medical specialist whether you will need medication to prevent an infection
- Exposure follow-up may include drugs with significant side effects
- Blood tests and further evaluation may be needed for six months to a year following the injury

As you wait for more information, the anxiety of the unknown can be a serious distraction for you and is stressful for your family.

**Remember, prevention is primary**

## How to protect yourself

Needlestick injuries can occur at any time during the use or disposal of a device. For example, 40 percent of injuries occur during use, another 40 percent occur after use and before disposal, and 15 percent are disposal-related. Recapping needles, a practice that is prohibited, still accounts for nearly 5 percent of needlestick injuries.



### Be aware

Other factors that contribute to needlesticks are:

- Lack of safety devices
- Inconveniently placed or overfilled sharps disposal containers
- Busy, congested environments with heavy work pressure and rushing
- Frequent and distracting interruptions



## Protect yourself and others by adopting these prevention strategies

### Be prepared

- Remind your employer that they are required by law to evaluate and purchase safety devices
- Be sure you receive training on any new safety devices
- Always use safety devices
- Place a sharps disposal container close to the procedure area.
- Limit interruptions during procedures
- Explain the procedure to patients to gain their cooperation and avoid potential movement during the procedure
- Ask for assistance with patients that might be uncooperative, such as children

### Dispose with care

- Never recap needles!
- Dispose of used needles in sharps disposal containers
- Avoid overfilling sharps disposal containers

### Care for yourself

- Get a hepatitis B vaccination; this should be provided at no cost by your employer
- Report all needlestick and other injuries



## What to do if you are injured

### **Preventing needlestick injuries is the best way to protect yourself.**

If you do sustain a needlestick injury, immediate action will limit your risk of serious infection. Know who to contact or where to go after an injury according to your employer's plan.

If you sustain a needlestick injury:

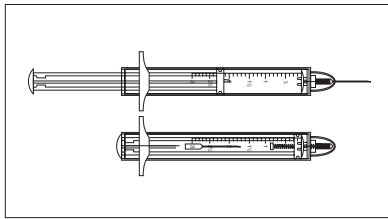
- Immediately report your injury to your supervisor; do not wait until the end of your shift or the end of the procedure
- Do not apply pressure to the wound; allow it to bleed freely
- Wash the wound with soap and water
- Identify the patient involved so that they can be evaluated for an infection
- Get a medical assessment
- Follow the directions for any necessary blood tests, vaccinations, or medications to prevent infection
- Document the incident in the forms provided by your employer
- Ask where you can receive counseling for yourself and your family

## Safety devices

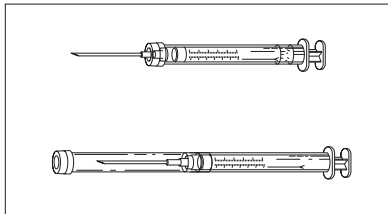
There are different types of safety devices and technologies that are available to prevent needlestick and sharps injuries.

Here are a few examples.\*

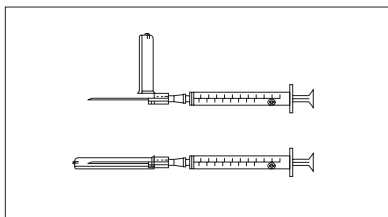
### Hypodermic syringes and needles



Syringe with retractable needle



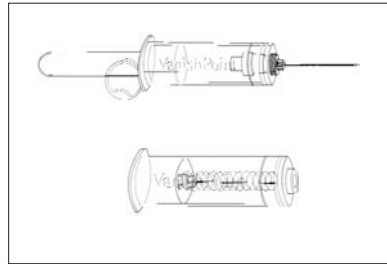
Syringe with sliding sleeve



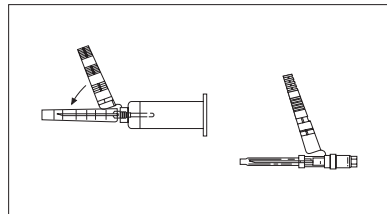
Syringe with hinged cap

*\*Depiction of examples of safety devices is not intended to promote specific products but rather is intended to provide examples of safety technology. New designs of safety devices are being developed on an ongoing basis. Drawings of sharps safety devices courtesy of the International Health Care Worker Safety Center, Charlottesville VA*

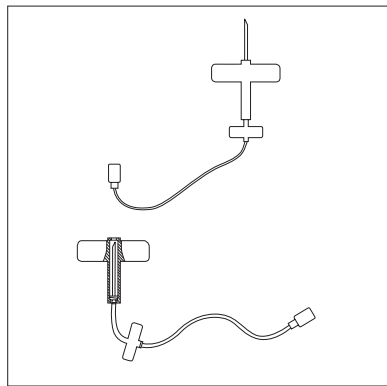
### Blood collection devices



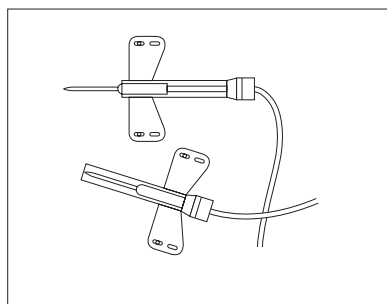
Phlebotomy device with retractable needle



Phlebotomy needle w/hinged cap

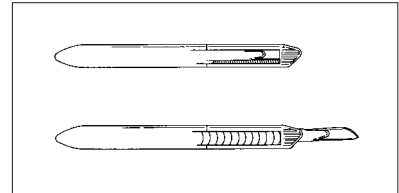


Winged (butterfly) needle retracts after use

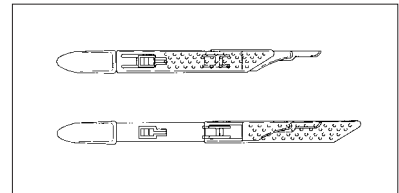


Winged (butterfly) needle with sliding sleeve

### Scalpels

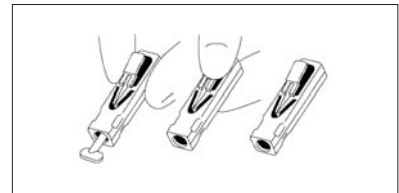


Scalpel with retractable blade

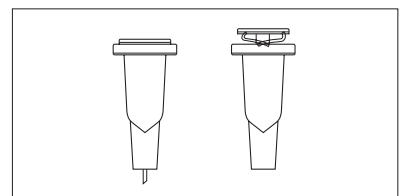


Scalpel with shield covering the blade after use

### Lancets

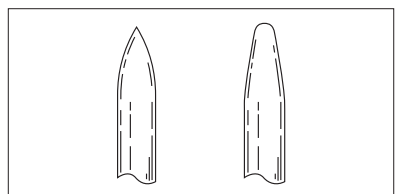


Lancets with tips that extend and retract when activated



Lancets with retractable tip

### Blunt tip suture needles



Suture needles with blunt tip for suturing fascia



## Needlestick safety - the law

Needlestick injuries remain one of the most serious hazards faced by healthcare workers.

OSHA's Bloodborne Pathogens Standard, effective in 1991 and revised in 2000, requires employers to protect healthcare workers from exposure to HIV and hepatitis B and C virus.

Employers must:

- Develop a written exposure control plan
- Implement universal (standard) precautions
- Provide personal protective equipment for example, gloves and face shields
- Use engineering controls for example, safety devices
- Implement work practice controls for example, no needle recapping, disposing of sharps immediately after use
- Provide hepatitis B vaccination at no cost
- Provide evaluation and follow-up care if an injury occurs

## Sharps disposal

Proper disposal of needles and other sharp devices is an important part of needlestick prevention. Nearly 15 percent of needlestick injuries occur during or after disposal.

### Important requirements for safe sharps disposal include:

- Conveniently place sharps disposal containers where sharps are used
- Be sure containers are at a height that allows users to see the top of the container
- Use lockable containers for locations where security is an issue (for example, where there are children, in prisons or psychiatric areas)
- Select containers that are closable, puncture-resistant and leakproof
- Ensure that the containers are clearly and correctly labeled - that is, red in color or biohazard symbol
- Replace sharps disposal containers promptly when full to avoid overfilling





## Take action

Most needlestick injuries can be prevented with the use of safety devices, which, in conjunction with worker education and training and work practice controls, can reduce injuries by over 90 percent.

Be proactive in preventing needlestick injuries in your practice setting. Talk to your employer if you are not aware of an exposure control plan or do not have access to safety devices.

Actively participate in the evaluation of new or existing safety devices. Look for features that will add to your safety.

### Evaluation of safety devices

Some of the desirable characteristics of safety devices include features that:

- Permit the practitioner's hands to remain behind the needle at all times
- Integrate the safety feature into the device so the features are not just an accessory
- Are simple and easy to use
- Can be used effectively by both left and right handed employees
- Determine easily whether the safety feature has been activated
- Cannot be defeated once permanently engaged
- Are safe and effective in patient care

### Tools to evaluate safety devices

Tools for evaluating the effectiveness of safety devices are available from many sources.

The following page includes sample tools from the Training for Development of Innovative Control Technologies Project (TDICT) for evaluating safety syringes and vacuum tube blood collection systems.

Two sources with additional tools for evaluation of other products are available at [www.tdict.org](http://www.tdict.org) or [www.cdc.gov/sharpssafety](http://www.cdc.gov/sharpssafety).

# SAFETY FEATURE EVALUATION FORMS

## SAFETY SYRINGES

Please circle the most appropriate answer for each question.  
Not applicable (N/A) may be used if the question does not apply to this particular product.

Date: \_\_\_\_\_ Department: \_\_\_\_\_ Occupation: \_\_\_\_\_ Product: \_\_\_\_\_ Number of times used: \_\_\_\_\_

### DURING USE:

		AGREE	DISAGREE				
1.	The safety feature can be activated using a one-handed technique .....	1	2	3	4	5	N/A
2.	The safety feature does not obstruct vision of the tip of the sharp .....	1	2	3	4	5	N/A
3.	Use of this product requires you to use the safety feature .....	1	2	3	4	5	N/A
4.	This product does not require more time to use than a non-safety device .....	1	2	3	4	5	N/A
5.	The safety feature works well with a wide variety of hand sizes .....	1	2	3	4	5	N/A
6.	The device is easy to handle while wearing gloves .....	1	2	3	4	5	N/A
7.	This device does not interfere with uses that do not require a needle .....	1	2	3	4	5	N/A
8.	This device offers a good view of any aspirated fluid .....	1	2	3	4	5	N/A
9.	This device will work with all required syringe and needle sizes .....	1	2	3	4	5	N/A
10.	This device provides a better alternative to traditional recapping .....	1	2	3	4	5	N/A

### AFTER USE:

11.	There is a clear and unmistakable change (audible or visible) that occurs when the safety feature is activated .....	1	2	3	4	5	N/A
12.	The safety feature operates reliably .....	1	2	3	4	5	N/A
13.	The exposed sharp is permanently blunted or covered after use and prior to disposal .....	1	2	3	4	5	N/A
14.	This device is no more difficult to process after use than non-safety devices.....	1	2	3	4	5	N/A

### TRAINING:

15.	The user does not need extensive training for correct operation .....	1	2	3	4	5	N/A
16.	The design of the device suggests proper use .....	1	2	3	4	5	N/A
17.	It is not easy to skip a crucial step in proper use of the device .....	1	2	3	4	5	N/A

Of the above questions, which three are the most important to your safety when using this product?

Are there other questions you feel should be asked regarding the safety/ utility of this product?

## VACUUM TUBE BLOOD COLLECTION SYSTEMS

Please circle the most appropriate answer for each question.  
Not applicable (N/A) may be used if the question does not apply to this particular product.

Date: \_\_\_\_\_ Department: \_\_\_\_\_ Occupation: \_\_\_\_\_ Product: \_\_\_\_\_ Number of times used: \_\_\_\_\_

		AGREE	DISAGREE				
1.	The safety feature can be activated using a one-handed technique .....	1	2	3	4	5	N/A
2.	The safety feature does not interfere with normal use of this product .....	1	2	3	4	5	N/A
3.	Use of this product requires you to use the safety feature .....	1	2	3	4	5	N/A
4.	This product does not require more time to use than a non-safety device .....	1	2	3	4	5	N/A
5.	The safety feature works well with a wide variety of hand sizes .....	1	2	3	4	5	N/A
6.	The safety feature works with a butterfly .....	1	2	3	4	5	N/A
7.	A clear and unmistakable change (either audible or visible) occurs when the safety feature is activated .....	1	2	3	4	5	N/A
8.	The safety feature operates reliably .....	1	2	3	4	5	N/A
9.	The exposed sharp is blunted or covered after use and prior to disposal .....	1	2	3	4	5	N/A
10.	The inner vacuum tube needle (rubber sleeved needle) does not present a danger of exposure .....	1	2	3	4	5	N/A
11.	The product does not need extensive training to be operated correctly .....	1	2	3	4	5	N/A

Of the above questions, which three are the most important to your safety when using this product?

Are there other questions you feel should be asked regarding the safety/ utility of this product?

These forms are reprinted with permission from the Training for Development of Innovative Control Technology Project (TDICT).  
Additional forms to evaluate other types of devices can be downloaded at [www.tdict.org](http://www.tdict.org). © June 1993, Revised August 1998 TDICT



## Additional resources

Occupational Safety and Health Administration (OSHA)  
Navigate to "Safety and Health Topics," and choose "Bloodborne Pathogens." | [www.osha.gov](http://www.osha.gov)

Centers for Disease Control and Prevention  
Navigate to the "A- Z" index and choose "sharps safety" or "needlesticks"  
[www.cdc.gov](http://www.cdc.gov)

Safety Institute, Premier, Inc. | [www.premierinc.com/needlestick](http://www.premierinc.com/needlestick)

American Nurses Association | [www.needlestick.org](http://www.needlestick.org)

APIC (Association for Professionals in Infection Control and Epidemiology) | [www.apic.org](http://www.apic.org)

ECRI Institute | [www.ecri.org](http://www.ecri.org)

EPINet (The International Health Care Worker Safety Center's Exposure Prevention Information Network) | [www.med.virginia.edu/epinet](http://www.med.virginia.edu/epinet)

International Sharps Injury Prevention Society | [www.isips.org](http://www.isips.org)

Service Employees International Union | [www.seiu.org](http://www.seiu.org)

Training for the Development of Innovative Control Technologies  
[www.tdict.org](http://www.tdict.org)

California Department of Health Services Sharps Injury Control Program  
[www.sharpslist.org](http://www.sharpslist.org)

Massachusetts Sharps Injury Surveillance System, Occupational Health Surveillance Program, Massachusetts Department of Public Health  
[www.mass.gov/dph/ohsp](http://www.mass.gov/dph/ohsp)

# PREMIER

© 2007

This booklet was developed by the **Safety Institute**, Premier, Inc., and is available at [www.premierinc.com/needlestick](http://www.premierinc.com/needlestick).

Now you see it.

Now you don't.



Protect yourself and others. Use sharps with safety features.



**BE PREPARED** - Anticipate injury risks and prepare the patient and work area with prevention in mind. Use a sharps device with safety features whenever it is available.

**BE AWARE** - Learn how to use the safety features on sharps devices.

**DISPOSE WITH CARE** - Engage safety features immediately after use and dispose in sharps safety containers.

