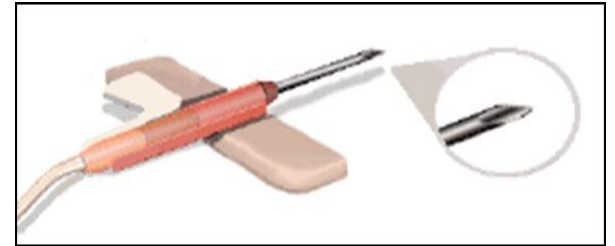




# Needle Stick



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# Objectives:

- Define Needle Stick.
- Mention the sharps.
- Discuss the rate of incidence.
- Identify the person who is at risk.
- Discuss Needle stick and infectious diseases.
- Discuss the preventable measurements.

# Introduction:

- ✘ Every day, nurses and other health care workers risk exposure to deadly viruses such as hepatitis and human immunodeficiency virus (HIV) as a result of injury from a used medical sharp, such as a needle or scalp blade.
- ✘ These injuries expose workers to over 20 different blood borne diseases.
- ✘ The reality is that the majority of these injuries could be prevented.

# What Dose Needle Stick Means?

*A "needle stick" means a break in the skin from a needle or other "sharp".*



# What are “sharps”?

Sharps are devices that are intentionally sharp to puncture or cut skin (needles, scalpels, etc.), or become sharp due to accident, such as broken glass tubes.

- ☐ Hypodermic needles
- ☐ Scalpels
- ☐ IV devices
- ☐ Capillary tubes
- ☐ Glass containers
- ☐ Pipettes
- ☐ Others

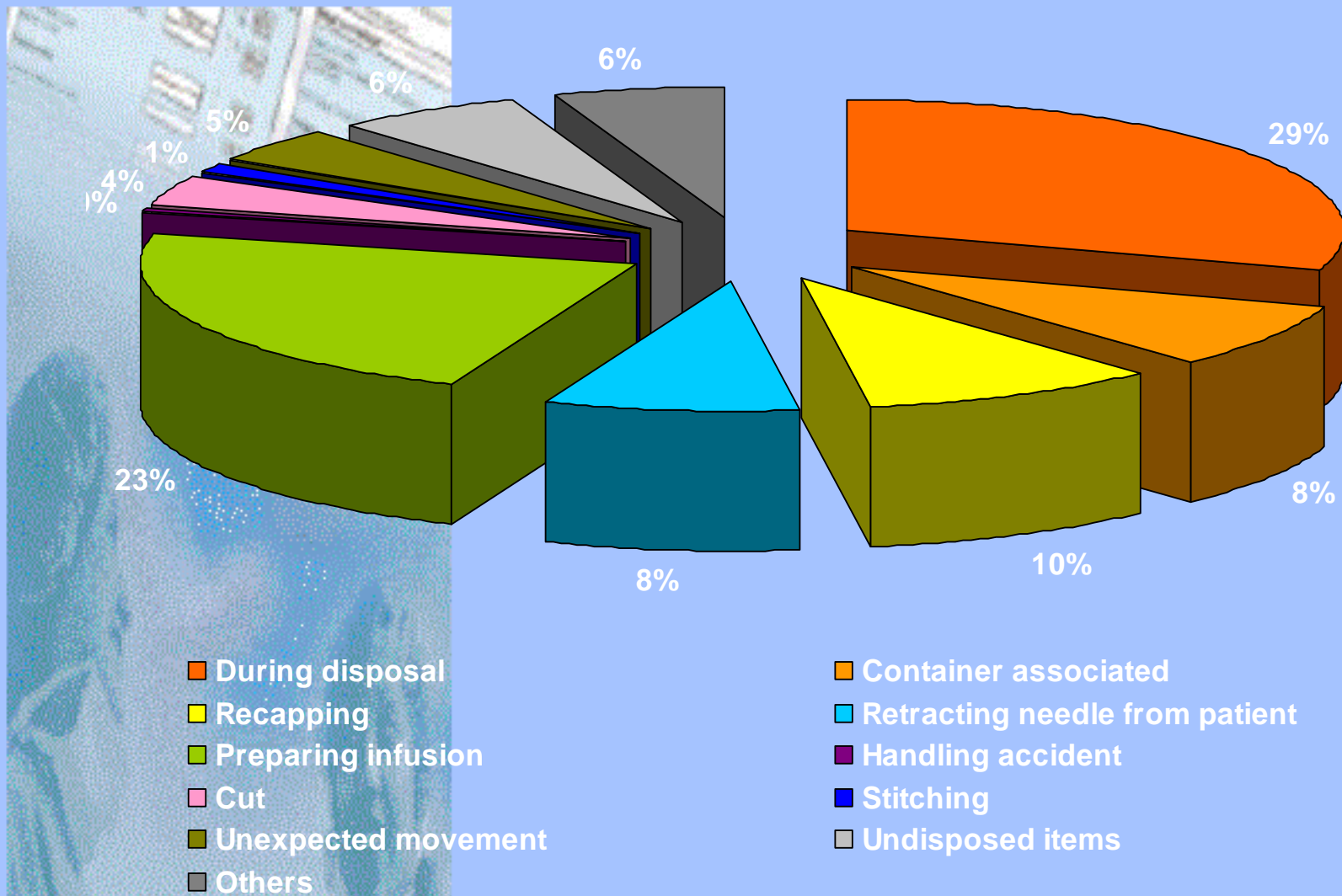


# Incidence:

- Estimates indicate that 600,000 to 800,000 needle stick injuries occur each year.
- The rates of injuries on a global level to affect about 3.5 million individuals.
- Among healthcare workers nurses and physicians appear especially at risk.

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- Within the medical field specialties differ in regard to the risk of needles stick injury, thus surgery, anesthesia, ENT, internal medicine, and dermatology tend to show relatively high, and radiology and pediatrics relatively low rates of injury.
- Half or more events may go unreported as injured healthcare workers may not take the time to report, downplay the risk, or fear stigmatization and professional consequences.



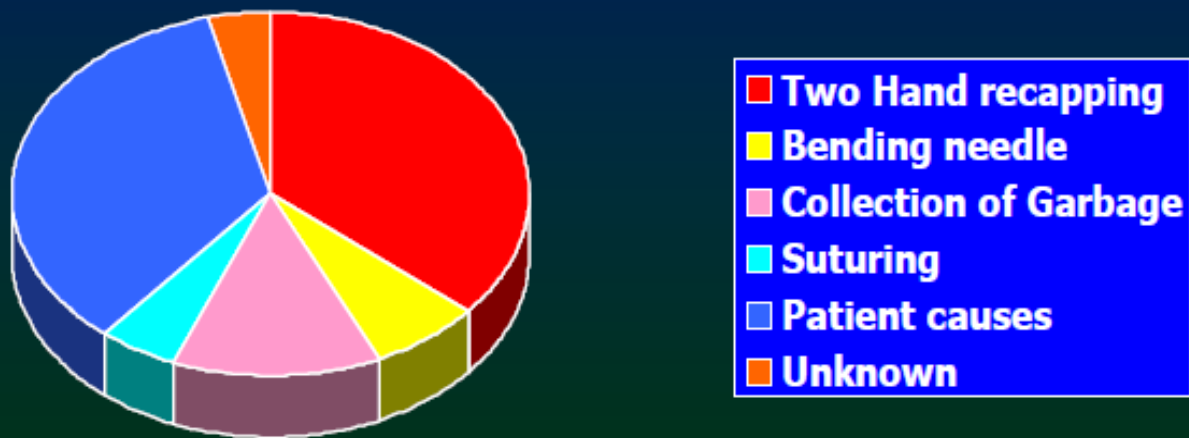
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# Behaviors Associated with Recent Needle Stick Injury

## Health Care Worker Survey 2001

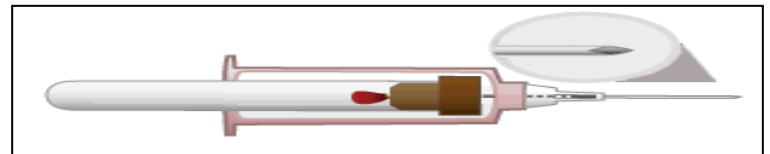
### (Egypt)



# Who is at risk for sharps injuries?

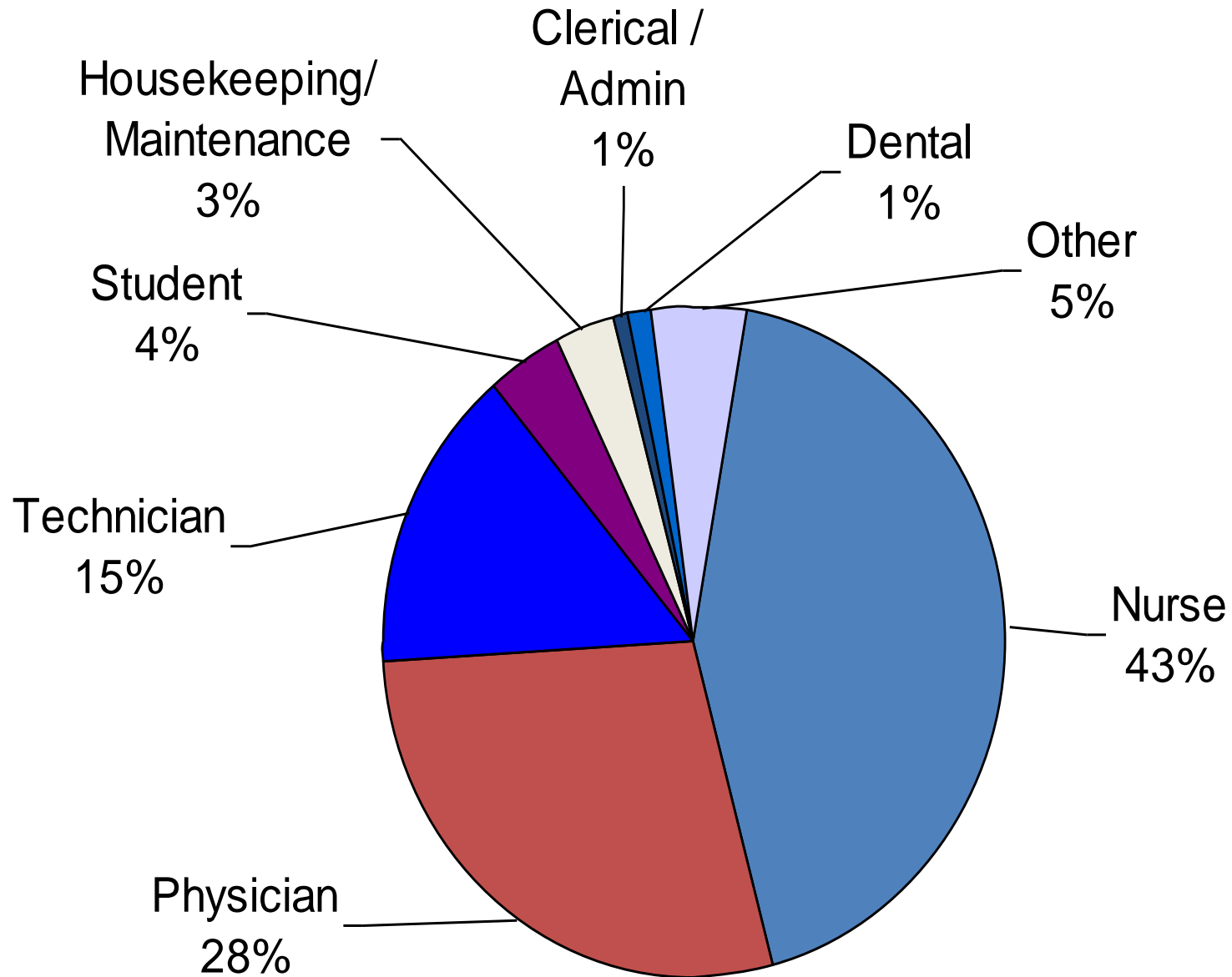
Most people who work in a health care facility are at risk of sustaining a needle stick, sharp injury or other occupational exposures.

1. Nurses sustain the most needle stick injuries because they administer most of the injections and care.
2. Many sharp instruments are used in surgery and the operating room increasing the risk of injury to staff working in those areas.
3. Dentists and dental staff are at high risk of injury because the majority of instruments used in dentistry are sharp objects.



# Continue.....

4. Laboratory staff handle many types of sharp instruments as a regular part of their job.
5. Sharp objects can injure laundry staff when needles and syringes or other instruments are accidentally left in bedding, linen or other laundry.
6. Housekeeping staff may sustain needle stick injuries when a sharp instrument is incorrectly disposed.



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# What infections can be caused by sharps injuries?

- Sharps injuries can expose workers to a number of blood borne pathogens that can cause serious or fatal infections. The pathogens that pose the most serious health risks are:
  - **Hepatitis B virus (HBV)**
  - **Hepatitis C virus (HCV)**
  - **Human immunodeficiency virus (HIV) the virus that causes AIDS**

## **Risks of Seroconversion due to Sharps Injury *from a known positive source***

<b><u>Virus</u></b>	<b><u>Risk (Range)</u></b>
HBV	6-30%*
HCV	~ 2%
HIV	0.3%

(\*Risk for HBV applies if not HB vaccinated)

# How do needle stick and sharp injuries occur?

- Needle stick and sharp injuries can occur in many ways and can happen any time needles and sharp instruments are being used.
- When performing a procedure on a patient with a sharp instrument, an unexpected movement by the patient, work colleague or a momentary lack of concentration can result in an injury.
- Even though a health care worker has repeated the procedure hundreds of times one slip can cause injury with potentially serious consequences.

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- Re-sheathing a used needle is a common cause of needle stick injuries.
- Over filling sharps bins (Sharp Box) can cause needle stick injuries.
- Incorrectly disposed needles are the main reason housekeeping staff sustain needle stick injuries.
- Sharp instruments can end up in bedding or other linen after being used.
- Laundry workers can sustain injuries when instruments are mixed with bedding or linen.



# Preventing Needle sticks and Other Sharps Injuries...

1. The person who uses the needle or sharp instrument is responsible for its management and disposal.
2. ***NEVER RE-SHEATH A USED NEEDLE***, except in special circumstances such as dental practice.
3. Make sure a sharps container is nearby every time a needle is used.
4. If a needle or sharp instrument has to be carried some distance to a sharps container, use a puncture resistant dish or tray, do not carry it in your hand.
5. Never pass needles or sharp instruments to another worker by hand – use a puncture resistant tray.

# Continue.....

6. Never bend needles contaminated with blood or body substance.
7. Never force needles into a sharps container.
8. Never overfill a sharps container.
9. Let falling needles or sharp objects fall. Don't try and catch them or break their fall.
10. Develop a slow, safe handling technique when using sharp instruments.
11. Seek assistance for confused or uncooperative patients.
12. Store sharp instruments safely.
13. Dispose of needles correctly.

# Continue.....

**14.NEVER** reach into garbage or sharps containers.

15.Wear general purpose household gloves when cleaning non-disposable instruments.

16.Handle laundry with care.

17.Don't rush or take short cuts when performing procedures.

# What is the best way to remove a needle and syringe that has been incorrectly disposed?

- Put on a pair of gloves.
- Ideally take a sharps container to the needle and syringe.
- **NEVER re-sheath** a needle and syringe even if a cap is there.
- Use tongs, or similar implement, to pick up the needle and syringe. If no implement is available, carefully pick up the needle and syringe with the needle furthest away from your fingers and body.
- Carefully place the needle and syringe in the sharps container.
- Report the incident to your supervisor or manager.



# Management After a Needle Stick Injury:

- The affected area should be rinsed and washed thoroughly with soap and water.
- Lab tests of the recipient are obtained for baseline studies: HIV, acute hepatitis panel (HAV IgM, HBsAg, HB core IgM, HCV) and for immunized individuals HB surface antibody.
- Unless already known, the infectious status of the source needs to be determined by checking for HBsAG, anti-HCV, and HIV antibody.
- Unless the source is known to be negative for HBV, HCV, and HIV post-exposure prophylaxis (PEP) should be initiated, ideally within one hour of the injury.

**THE END**  
**ANY QUESTIONS**  
**???**

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