

# **HIV and AIDS**

**AIDS**, which stands for **autoimmune deficiency syndrome**, refers to the advanced stages of **HIV**, or **human immunodeficiency virus**.

HIV and AIDS damage an infected person's immune system, leaving him or her vulnerable to illness. There is no cure for these conditions, and in many cases, AIDS leads to death.

Although **occupational exposure** to HIV and AIDS is rare, CNAs must take **standard precautions** to protect themselves from acquiring these life-threatening conditions from infected residents.

CNAs must be cautious when handling bodily fluids, such as blood, and wear **gloves**, **face masks**, **gowns**, and other necessary **protective barriers**.

CNAs must also know proper **hand washing techniques** and the correct way to handle and dispose of **sharps.** 

Have a good day of training, and stay tuned for next month's issue of **CNA Training Advisor**, which will review the musculoskeletal system.

# About your CNA training advisor

**Judith Ryan, RN, BSN,** is the senior advisor for **CNA Training Advisor.** She is the director of staff development at Abbott House, a 55-bed nursing home in Lynn, MA. Ryan has been a nurse for 20 years. As part of her job, she is responsible for conducting inservices on a wide range of topics for CNAs.

#### PROGRAM PREP

## Program time

Approximately 30 minutes

### **Learning objectives**

Participants in this activity will be able to:

- ➤ Identify signs and symptoms of HIV and AIDS
- Prevent occupational exposure to HIV and AIDS with standard safety precautions
- Properly wash hands
- > Properly handle and dispose of sharps

## **Preparation**

- ➤ Review the material on pp. 2–4
- ➤ Duplicate the **CNA Professor** insert for participants
- ➤ Gather equipment for participants (e.g., an attendance sheet, pencils, etc.)

#### Method

- Place a copy of CNA Professor and a pencil at each participant's seat
- **2.** Conduct the questionnaire as a pretest or, if participants' reading skills are limited, as an oral posttest
- 3. Present the program material
- 4. Review the questionnaire
- 5. Discuss the answers

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HIV and AIDS in the elderly are often overlooked, mainly due to the common belief that they are diseases of the younger generation. However, the survival rate of people with HIV has increased since the epidemic began, and many people grow older with the virus.

HIV and AIDS are bloodborne pathogens, meaning they can be transmitted through contact with infected body fluids such as blood, semen, and vaginal secretions. Exposures occur if the skin is punctured by a contaminated needle, razor, or other sharp item, or when broken skin or mucous membranes are splashed with blood or other body fluid.

Fortunately, most exposures do not result in infections, but CNAs must take proper precautions to protect themselves from contracting HIV or AIDS from a resident.



### Signs and symptoms

To determine whether a person is infected with HIV or AIDS, he or she must be tested. Symptoms of these conditions often do not present themselves for many years and frequently resemble other illnesses such as the flu.

Early symptoms of HIV and AIDS may include:

- ➤ Fever
- ➤ Headache
- ➤ Fatigue
- ➤ Enlarged lymph nodes

The early symptoms of these conditions do not last long and usually disappear within a few weeks. During this time, people are very infectious.

As HIV and AIDS progress, the immune system becomes more damaged and other symptoms arise. These later symptoms may include:

- ➤ Weight loss
- Lack of energy
- ➤ Frequent fevers
- > Recurrent or persistent yeast infections
- Persistent skin rashes
- Memory loss
- > Frequent sickness



## **Standard precautions**

Standard precautions are designed to prevent transmission of HIV and AIDS and must be observed in all situations in which there is a possibility for contact with blood or other potentially infectious body fluids.

Standard precautions apply to:

- Blood
- Semen
- Vaginal secretions
- Saliva
- Cerebrospinal fluid
- Synovial fluid
- > Pleural fluid
- Peritoneal fluid
- Pericardial fluid
- ➤ Amniotic fluid

Although not implicated in the transmission of HIV or AIDS unless they contain visible amounts of blood, standard precautions could also apply to:

- Feces
- Nasal secretions
- > Sputum
- Sweat
- ➤ Tears
- Urine
- ➤ Vomit

CNAs must treat all human blood and body fluids as though they were infectious.

To protect yourself from HIV and AIDS, take the following standard precautions:

- ➤ Wash your hands regularly
- Wear gloves
- Wear protective barriers
- Properly dispose of sharp items



## **Hand washing**

Hand washing is the single most important thing a CNA can do to prevent the spread of infection. Thorough hand washing removes pathogens from the skin. Wash hands before and after all client or body fluid contact. Immediately wash hands and other skin surfaces that are

contaminated with blood or body fluids. When wearing gloves, wash hands as soon as the gloves are removed.

Germicidal hand rubs are recommended only when you can't wash.

#### **Proper hand washing procedure**

Do not touch the sink with your hands while you are washing, and stand back from the sink to keep it from touching your clothes. Use warm water, as hot water may dry skin. Either bar soap or liquid soap is okay to use. If using a bar, rinse it first and hold it the whole time you are lathering. Soap does not have to be an antiseptic unless you are performing an invasive procedure such as catheterization.

To properly wash your hands, follow these steps:

- 1. Wet your wrists and hands.
- **2.** Apply plenty of soap. Work up a thick lather all over your hands and wrists, between your fingers and thumbs, and on the back of your hands and wrists.
- **3.** Vigorously rub all areas of your hands, fingers, and wrists for a minimum of 10–15 seconds. Sixty seconds is better.
- **4.** Clean under your nails by using the nails on your other hand, or rub your nails into the palm of your other hand. Clean around the top of your nails.
- **5.** Rinse with warm water, letting the water run down from wrists to fingertips and into the sink.
- 6. Dry with a clean paper towel and throw it away.
- **7.** Turn off the faucet with a clean, dry paper towel and throw the towel away.
- **8.** Use lotion on your hands to prevent irritation and chapping, which makes skin more prone to infection.

#### **Gloves**

Use gloves in all situations in which you may come in contact with blood or body fluids. You should also wear gloves when you have scrapes, scratches, or chapped skin. Be sure to change gloves and wash your hands between client contacts. Do not wash or disinfect disposable gloves for reuse.

#### **Protective barriers**

Protective barriers reduce the risk of your skin or mucous membranes being exposed to potentially infectious blood and body fluids. You should wear equipment that is appropriate for the work you are doing.

Protective equipment includes gloves, gowns, masks, eye protection, face shields, mouthpieces, resuscitation devices, and other items. Hypoallergenic gloves, glove liners, powderless gloves, or other alternatives must be available for those who are allergic to latex gloves.

The equipment you need depends on your work. When splashing of blood or body fluids is likely, wear the following protective barriers in addition to gloves:

- Mask
- Eye protection
- ➤ Gown



### Proper disposal of sharp items

A sharp is any object that can penetrate the skin, such as needles, razors, scalpels, broken glass, broken capillary tubes, and exposed ends of wires. A sharp is contaminated if it has been in contact with blood, body fluids, or body tissues. Follow your facility's policies regarding proper disposal of contaminated sharps. A puncture-proof biohazardous container is used in many facilities, and biohazardous waste must be disposed of by specially licensed companies.

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Be careful to prevent injuries from needlesticks and other sharp instruments after procedures, when cleaning used instruments, and when disposing of used needles or razors. Do not recap or manipulate razors, needles, or other sharps.

The Occupational Safety and Health Administration revised its standard on occupational exposure to bloodborne pathogens in 2001 and placed further regulations on providers concerning their sharps systems and procedures. Now, all nursing facilities should be using needleless injection systems or needles with injury protection. However, needlestick is still the most common cause of work-related HIV infection.

Although CNAs do not typically handle needles, they work with razors and other sharps daily and must take precautions when dealing with these instruments.



### Risk of HIV infection after exposure

The average risk of HIV infection after a needlestick or cut exposure to HIV-infected blood is 0.3%. The risk after exposure of the eye, nose, or mouth to HIV-infected blood is estimated to be, on average, 0.1%.

From 1981 to 2006, there have been only 57 documented cases of occupationally acquired HIV infection among healthcare personnel in the United States, according to the Centers for Disease Control and Prevention.

## **Questions? Comments? Ideas?**

Contact Associate Editor MacKenzie Kimball

E-mail *mkimball@hcpro.com*Phone 781/639-1872, Ext. 3265

Documented cases of occupationally acquired AIDS/HIV infection in healthcare personnel, by occupation, 1981–2006				
Occupation	Number of cases			
Nurse	24			
Laboratory worker, clinical	16			
Physician, nonsurgical	6			
Laboratory technician, nonclinical	3			
Housekeeper/maintenance worker	2			
Technician, surgical	2			
Embalmer/morgue technician	1			
Health aide/attendant	1			

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Source: Centers for Disease Control and Prevention.

### **Tips**

Respiratory therapist

Technician, dialysis

- Use disposable equipment only once.
- Use thick rubber household gloves to protect your hands during housekeeping chores or instrument cleaning involving possible blood contact.
- ➤ Treat all linen soiled with blood or body secretions as potentially infectious.
- Roll dirty linens, do not shake them, and hold the linens away from your body. It is acceptable to wash linens soiled with body fluids with other laundry; be sure to follow your facility's policies and procedures.
- ➤ Clean surfaces contaminated with blood or body fluids with a disinfectant according to your facility's policies and procedures.
- ➤ Dispose of trash contaminated with germs, such as wound dressings, according to your facility's policies and procedures.
- ➤ Check your gloves and other protective clothing frequently. If you see tears or holes, remove the gloves, wash your hands, and apply clean gloves. ■

## **Editorial Board**

Group Publisher: Emily Sheahan
Executive Editor: Elizabeth Petersen
Associate Editor: MacKenzie Kimball
mkimball@hcpro.com



Judith Ryan, RN, BSN

Director of Staff Development

Abbott House

Lynn, MA

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Mark the correct response.

Name:	Date:	

- 1. What does AIDS refer to?
  - a. A disease unrelated to HIV
  - b. The early stages of HIV
  - c. The advanced stages of HIV
  - d. None of the above
- **2.** There is a cure for HIV and AIDS.
  - a. True
  - b. False
- **3.** What is an early symptom of HIV and AIDS?
  - a. Fever
  - b. Headache
  - c. Enlarged lymph nodes
  - d. All of the above
- **4.** Infected people always show signs and symptoms.
  - a. True
  - b. False
- **5.** CNAs must treat all human blood and body fluids as though they were infectious.
  - a. True
  - b. False
- **6.** What is the single most important thing a CNA can do to prevent the spread of infection?
  - a. Wear protective barriers
  - b. Avoid sick residents
  - c. Wash hands regularly
  - d. Do not recap used needles

- 7. When should a CNA wear gloves?
  - a. In all situations in which he or she may come in contact with blood or body fluids
  - b. When he or she has scrapes, scratches, or chapped skin on his or her hands
  - c. Never
  - d. Both a & b
- **8.** When splashing of blood or body fluids is likely, what protective barriers should a CNA wear in addition to gloves?
  - a. Mask, eye protection, and gown
  - b. Face shield, mouthpiece, and hairnet
  - c. Resuscitation device, mask, and bodysuit
  - d. Eye protection, boots, and mask
- Needlestick is the most common cause of workrelated HIV infection.
  - a. True
  - b. False
- **10.** How many cases of occupationally acquired HIV among healthcare professionals have been documented?
  - a. 25
  - b. 57
  - c. 72
  - d. 118