



HEALTH AND SAFETY **FACT SHEET**

HIV / AIDS

Acquired immune deficiency syndrome (AIDS) is a life-threatening clinical condition, which is associated with advanced stages of infection with HIV. AIDS damages the body's immune system, which is its defence against disease. When the immune system has been damaged, common infections become life threatening.

HIV

The **Human Immunodeficiency Virus (HIV)** is recognized as the virus responsible for AIDS. It belongs to a family of viruses known as *retroviruses*.

AIDS

Acquired: disease is acquired, not inherited.

Immune Deficiency: the immune system breaks down.

Syndrome: a variety of diseases result.

Everyone should be educated about HIV/AIDS and preventive measures, particularly workers in high-risk groups and those who are potentially exposed on a day-to-day basis.

This fact sheet provides basic information on HIV infection and AIDS.

Its emphasis is on occupational exposures to blood and body fluids potentially contaminated with HIV.

What are the causes?

HIV infects a specific type of cells that are part of the body's defence system against disease. The most important are the infection-fighting white blood cells known as T-cells. These cells are crucial for fighting any infection. AIDS is the result of the progressive destruction of a person's immune system. It is the final stage of infection with HIV. Without their body's ability to fight disease, people with AIDS become more prone to cancers and difficult to treat infections. In addition, HIV itself can directly attack the brain and nervous system.

Infection with HIV

What are the symptoms?

HIV infection progresses through different stages, and it affects people in different ways. Some people become ill in a short period of time, while it may take others years before they have signs of illness. Some of the early symptoms of HIV infection are flu-like symptoms,

except that they last longer. As the condition progresses, the person may develop AIDS-related complex (ARC), which consists of symptoms including: severe fatigue, fever, persistent night sweats, loss of weight, swollen glands in the groin, neck or armpit, which stay for months at a time.

Over time, the immune system may become so damaged that the person becomes susceptible to a host of rare infections and cancers. These are often called "opportunistic" infections and cancers. These diseases take advantage of the weakened immune system.

They can include:

- *Kaposi's sarcoma*, which is a rare blood vessel cancer that appears on the skin;
- *Pneumocystis carinii pneumonia*, which is a very rare type of lung infection;
- other infections such as herpes, *candida* (thrush), and *toxoplasma gondii*, which causes swelling of the brain.

Note that it's not AIDS that kills, but the other diseases that the victim's system can no longer resist.

Who is affected?

The major high-risk groups in Canada according to case numbers are:

- Sexually active homosexual or bisexual men with multiple partners;
- Present or past intravenous drug users;
- Haemophiliacs or those who have received transfusions of contaminated blood or blood products;

- Heterosexual contacts with persons with HIV infection.

How is HIV transmitted?

To infect someone, HIV must be able to get from the blood of an infected person into another person's bloodstream. HIV has been found in several body fluids, including: blood, semen and vaginal secretions. Small amounts of the virus have been detected in saliva, tears and breast milk. At this time, it is known that HIV can be spread through direct contact with blood, semen, vaginal secretions and blood products. HIV is also acquired through vaginal or anal intercourse, direct injection of contaminated blood or blood products, or by using contaminated needles.

How is HIV not transmitted?

HIV is not spread through the air like cold viruses. You cannot "catch" HIV like the common cold or flu. The virus is not transmitted in social situations, such as at work or by sharing food or water. In addition, there is no evidence that HIV can be transmitted through insects, such as mosquitoes. It's important to keep in mind that *there is no medical evidence that HIV can be spread by casual contact with someone with HIV infection, or through contact with saliva or tears.*

How can a person know if they've been infected with HIV?

Members who feel they have been occupationally exposed to HIV are encouraged to seek medical advice. Before any tests are carried out, counselling must be made available to workers. Counselling should include a

discussion of the limitations of testing, and its implications. Workers should keep in mind that, from an occupational health and safety perspective, there is no justification for pre-employment or employment testing for HIV.

Infection with HIV can be detected with a blood test known as an ELISA test. This test recognizes the human antibodies the body produces in its reaction to HIV. The ELISA will, ordinarily, detect infections in almost all people infected with HIV.

However, it may take several weeks after HIV enters the bloodstream before antibodies are produced and detected. In some people, it can take several months. A positive ELISA test simply means that someone may have been infected with HIV. A second, more accurate blood test known as the Western blot assay is used to supplement the results of the ELISA.

Are workers at risk?

All the information we have right now indicates that most occupational groups are not at risk of becoming infected with HIV through exposures at work. There is no evidence that HIV is transmitted through *touching or caring for patients or clients (unless direct contact with blood or body fluids is involved); from cutlery, glasses, food or dishes, swimming pools, drinking fountains, coughing or sneezing, or toilet seats.* Occupational transmission of HIV can happen in several ways. The most effective way for HIV to enter the body is through a needlestick, if that needle has been used by someone with HIV infection. Studies indicate that the risk of developing HIV infection is about 0.4

per cent (or about one chance in 250) after a needlestick with a needle from a known HIV-infected person. An open wound, cut or skin that is not intact, such as skin that is chapped, weeping or skin that has rashes, can allow infected fluid to enter the body.

Finally, if infected fluids touch mucous membranes such as the eyes, nose or mouth, these surfaces can absorb the fluid and transmit the virus. The risk associated with broken skin or mucous membrane transmission is believed to be lower than that associated with needle sticks.

Workers who have contact with blood and body fluids are potentially at risk, and should take the same type of precautions as are used for other blood borne pathogens (such as hepatitis B or C). Workers at risk of exposure include:

- health care workers, including those involved in patient care and support services such as laundry, housekeeping and materials handling;
- laboratory workers;
- emergency response personnel, including paramedics, ambulance attendants, police, and firefighters;
- institutional workers in group homes and psychiatric facilities;
- correctional officers;
- morgue attendants;
- dental workers.

It is vital that workers recognize that *all blood and body fluids* they come in contact with are potentially infectious, and not just with HIV!

How can potentially exposed workers be protected?

The first steps for any employer to take, in consultation with the union, are:

- develop an education program about HIV/AIDS for all workers;
- develop policies that specifically address HIV/AIDS and other long-term illnesses such as cancer, and
- put in place a control program which uses **engineering controls** and **work practice controls** to eliminate exposure to blood and body fluids.

Engineering controls isolate or remove the hazard from workers, and include puncture-resistant containers for sharps disposal. **Work practice controls** reduce the likelihood of exposure by altering the way that work is done. They include minimizing splashing and spraying of blood or body fluids, not bending or recapping needles and hand washing.

Education

All workers should be informed of how HIV is transmitted, what AIDS is, who is at risk and anything that is currently known about occupational exposures, and effective control measures.

Some workers will have to deal with HIV/AIDS not only as an issue for patient/client care, but also as potential job discrimination and human rights issue if they or their co-workers are HIV-positive or develop AIDS.

Therefore, the education program must deal with the facts about HIV. It must also approach the issues of how one works with a person with HIV infection

or AIDS (either a patient or co-worker) in a supportive manner. The program must also deal with addressing the fears of co-workers and caregivers about "catching" AIDS.

It is crucial that all workers understand HIV and those they are given all information available on the subject. Such openness will help to assure workers that their health and safety and human rights are being protected. It will also help reduce fear of HIV/AIDS.

Workplace Policies

Increasing numbers of employers, often because of the pressure from unions or employee groups, are developing workplace policies based on the human rights of persons with HIV/AIDS not to be discriminated against in hiring or employment; the rights of workers to keep their jobs until they pose a risk to themselves, other workers or society; and a prohibition against employees' refusal to work with a co-worker with HIV/AIDS or related conditions when there is no danger of contact with blood or bodily fluids.

The key elements of a workplace HIV/AIDS policy should be:

- that persons with HIV/AIDS will be treated fairly and compassionately;
- the right of workers with HIV/AIDS to reasonable accommodation regarding their schedule or duties;
- continuation of health benefits or access to group coverage;
- protection of confidentiality about a person's HIV status;
- protection of persons with HIV/AIDS from harassment and discrimination;
- the prohibition of HIV testing for workers;

- the right of all workers to a safe and healthy workplace.

Controls

Particularly in health care settings, infection control programs are the major method for controlling exposure to HIV and other blood borne pathogens. Part of the infection control program involves the concept of Universal Precautions (U.P.), U.P. are workplace specific practices, which are intended to protect workers from blood borne diseases. They are designed to prevent exposure through the use of barriers such as gloves, gowns, masks, protective eyewear and by hand washing. While U.P. are practices that should be followed, they are not legislated procedures and therefore their application varies.

What are some workplace specific controls?

The following procedures should be followed whenever there is the potential for exposure to blood and body fluids:

- Protective clothing and equipment must be provided for jobs with potential blood or body fluid exposure or anytime a worker feels it is necessary;
- Facial protection may be necessary where splattering of blood or body secretions is likely to occur (e.g., bronchoscopy or intubation);
- Gowns must be provided and worn whenever clothing could be contaminated with blood, body fluids or excretions;
- During emergencies, first aid procedures and mouth-to-mouth resuscitation, latex gloves and one-way resuscitation devices should be used. First aid training should include instruction in the use of disposable devices.
- Proper disposal procedures at the point-of-use must be followed by all users of sharps. This means that sharps must be placed in puncture resistant containers that can be sealed and disposed of according to procedures for biohazardous wastes.

Others

Some workers may come in contact with persons with HIV infection or AIDS. In most cases, workers will not have access to a client's HIV status. In situations where workers might have to treat or work with adults or children who are bleeding (e.g., day care centres, schools and institutions) the precautions for health care workers above apply. Avoid contact with blood or body fluids through the use of gloves. Wash any blood off exposed skin as soon as possible. Recognize that where workers are expected to treat minor wounds as part of their work responsibilities, they must be provided with adequate protective equipment and devices.

What should be done after a potential exposure to HIV?

When a needlestick injury or other procedure leading to a potential exposure to HIV occurs, the following measures should be followed:

- Ensure that confidential counselling is offered to the individual to discuss concerns, testing and drug prophylaxis;
- If a worker decides to be tested,

confidential testing should be done as soon as possible after exposure (within the first weeks) and then again at 6 weeks, 12 weeks, 6 months, and at 12 months after exposure;

- Post-exposure prophylaxis should be discussed and made available. There is limited information available on a drug called Zidovudine (AZT), which suggests that it reduces the likelihood of becoming infected. There are side effects to taking AZT; therefore individuals should be counselled regarding its possible advantages, disadvantages and side effects.

To summarize:

Workers who are exposed to blood and body fluids run a risk of exposure primarily in accidental situations. Good infection control practices that protect against blood borne diseases, such as hepatitis, will reduce the risk to a large extent.

Education is important for the general public, but it is crucial for all workers who will potentially come into contact with patients or clients with HIV infection or AIDS in a work situation. Health and safety committees and infection control committees, where they exist, must be actively involved in the education and control programs described above.

Workers have a legal right to be protected from occupational hazards such as communicable diseases. However, they must remember the right to protection from communicable diseases contracted in the workplace

does not mean that other people's human rights can be overlooked. Open, rational discussion about HIV and AIDS, provision of adequate safeguards and education are components of a workplace program that will guard the health and safety of workers, as well as the rights and dignity of patients and clients.

Additional Resources:

"AIDS in the Workplace Information Package" and "AIDS/HIV Policy" are available from CUPE's Research Branch.

For further information contact:

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