



### What are needlestick injuries?

- + Needlestick injuries are caused by needles or sharp objects possibly contaminated with blood or body fluids and resulting in breach of skin surface. Mucosal contacts with blood or body fluids also expose one to similar though lower risks.



### How to manage on site?

- + Any breach of skin surface subjects one to invasion by bacteria or virus. First aid measures including washing thoroughly with soap and water, and proper dressing should be carried out. Wounds should not be sucked.
- + For mucosal contact, such as spillage into the conjunctiva, the exposed area should also be washed immediately and liberally with clean running water.



### What are the risks of infection?

- + Apart from infection by environment germs including tetanus, blood-borne pathogens including hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV) present in the source person may also be transmitted to the injured person.



### What are the consequences of these infections?

- + Between 5-10% of people infected with hepatitis B and 70-80% of people infected with hepatitis C would result in chronic carrier status.
- + A significant proportion of hepatitis B and C chronic carriers may progress to chronic hepatitis, cirrhosis and liver cancer.
- + Without treatment, half of the HIV-infected individuals will develop acquired immunodeficiency syndrome(AIDS) in 10 years.



### How likely is it to contract these blood-borne infections after a needlestick injury?

- + The risk depends on the prevalence of the infection in the population, nature of exposure, the type of body fluid involved and the infectivity of the source.
- + The estimated risk of acquiring hepatitis B virus in health care setting is 18-30%, that of hepatitis C virus is 1.8%, and HIV 0.3%.



### How can I know if I have acquired hepatitis B, C or HIV infection due to the needlestick injury?

- + The injured should receive proper counselling and blood testing both immediately after the injury and 3 to 6 months later.
- + If there is evidence of infection at 3 to 6 months after the documented needlestick injury, the infection has most probably resulted from the particular injury, after other routes of transmission have been excluded. However, if the test taken immediately after the injury demonstrates evidence of infection, it is likely to be acquired via other routes and that infection is not a result of the injury.
- + If the second blood sample taken 3 to 6 months after the needlestick injury also tested negative for serological markers of HBV, HCV and HIV infection, infection due to the particular injury can be safely excluded.



### What are the post-exposure prophylactic measures against blood-borne infections?

- + If the hepatitis B status of the injured is unknown, his/her blood should be promptly tested for hepatitis B surface antigen and antibody. If there is no indication of immunity or hepatitis B infection on testing and based on the assessment of risk of exposure, hepatitis B immunoglobulin may be given preferably within 24 hours of injury, and followed by vaccination.
- + Further testing is not necessary if the injured is a chronic hepatitis B carrier or has developed detectable antibodies prior to the injury.
- + There is no effective post-exposure prophylaxis against hepatitis C infection after needlestick injury.
- + Medication for prophylaxis may be needed for high risk cases to prevent HIV (preferably within 72 hours of injury), but management should be individualized. Factors to be considered include: the type of body fluid involved, the route and severity of the exposure and the likelihood of HIV infection in the source patient.



### What should I do before the second blood taking?

- + You should adhere to standard precaution regarding blood and body fluids.
- + You should NOT share instruments which have a risk to breach the skin surface, and these include razors, toothbrushes, nail clippers, needles and syringes.

- + You should avoid procedures like tattooing, acupuncture or removal of moles. Should you decide to undergo these procedures, you should ensure that disposable instruments are used, or that proper disinfection of non-disposable instruments should be performed afterwards.
- + You should not donate blood, plasma, organs, tissue or semen. Safer sex and condom is strongly recommended.
- + You may contact the Therapeutic Prevention Clinic to arrange a counselling session if necessary.



### Where can I get these services after needlestick injuries?

- + You may approach the nearest Accident and Emergency (A&E) Department for first aid and antitetanus toxoid. Some A&E Departments may also provide counselling and prophylaxis against HBV, HCV and HIV infections.
- + A referral may be made to the Therapeutic Prevention Clinic of the Department of Health for further action.
- + All information will be kept in strict confidence.
- + The blood results will only be disclosed to the person being tested.



### Should I report the incident to my supervisor?

- + In the case of occupational injury, reporting to your supervisor or infection control unit is helpful to improve infection control practice to avoid future accidents.

### Enquiry and Correspondence

Therapeutic Prevention Clinic, Special Preventive Programme, Department of Health (By appointment)

**Address :** Therapeutic Prevention Clinic  
Integrated Treatment Centre  
8/F, Kowloon Bay Health Centre  
9, Kai Yan Street, Kowloon.

**Telephone:** 2116 2929

**Fax:** 2117 0812

**Hepatitis Website :** <http://www.hepatitis.gov.hk>

**AIDS Website :** <http://www.aids.gov.hk>

**Hepatitis Hotline :** 2112 9911

**AIDS Hotline :** 2780 2211

by Therapeutic Prevention Clinic, Special Preventive Programme, Department of Health

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# 針刺意外 及黏膜受到血液或 體液污染後的處理方法

## Management of Needlestick Injuries or Mucosal Contacts of Blood and Body Fluids



PA/HG4/13-06(B)/GEN-INF



衛生署  
Department of Health



衛生防護中心  
Centre for Health Protection

特別預防計劃 預防治療診所  
Therapeutic Prevention Clinic, Special Preventive Programme

