# WHAT TO DO NEXT...

After an exposure to potential blood borne infections.

PUBLIC HEALTH
GREY BRUCE HEALTH UNIT

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## REFERENCES

Blood-Borne Diseases Surveillance Protocol for Ontario Hospitals. Ontario Hospital Association and the Ontario Medical Association. November 2012.

Canadian Immunization Guide. Public Health Agency of Canada. Evergreen document available at: http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php

## BLOOD BORNE PATHOGENS

Blood borne pathogens are infectious viruses present in blood or other body fluids that can cause disease in humans.

These pathogens include:

- Hepatitis B virus (HBV)
- Hepatitis C virus (HCV)
- Human Immunodeficiency Virus (HIV).

People exposed to blood borne pathogens are at possible risk for getting these infections.

Risks include:

- puncture wounds with contaminated needle or other sharp object,
- splash of body fluids into the mouth,
- splash of body fluids into the eyes,
- human bite which breaks the skin, or
- prolonged skin exposure when skin is in poor condition (e.g. open wounds, cuts, cracked hands, abrasions and rashes).

## MY RISKS

According to the Ontario Hospital Association Communicable Disease Surveillance Protocol (2012), HBV is transmitted much more easily than HIV. It is estimated after a needle-stick injury from a needle contaminated with HBV, there is a 6-30% chance that the exposed person will be infected unless previously vaccinated. In a similar situation with HIV, there is about a 0.3% (1 in 300) chance of infection. There is a 2% risk of contracting HCV infection from a workplace blood borne exposure.

Risks are calculated based on:

- the type of body fluids,
- the type of injury,
- the severity of the injury, and
- if the source person is known to be infected with HBV, HCV or HIV

Talk to your designated officer or health care provider to help assess your risks.

## TREATMENT AT THE EMERGENCY ROOM

**First steps:**
Let the wound bleed freely and do not apply direct pressure. The wound should be gently and thoroughly cleaned with antiseptic or soap and water as soon as possible. If the exposure happens to mucous membranes including the eyes, nose and mouth, the area should be flushed immediately with water or saline for 10 to 15 minutes.

**At the ER:**
The emergency department will take your blood to create a "baseline" for you. Baseline blood work determines your Hepatitis B, C and HIV status currently. These results identify if you had these infections prior to the injury. Doing this blood work also helps determine if you have protection against HBV. It also helps you with any future claims for compensation if you get an occupationally-acquired infection of HBV, HCV, or HIV. **Not doing this baseline blood work may jeopardize any future work related claims.**

Your health care provider may obtain these results by calling the main Public Health Laboratory customer service line at 1-877-604-4567 or you may request the hospital medical records department to forward copies of your results to your family doctor.

**Hepatitis B**
The emergency room staff will ask whether you have previously been vaccinated against Hepatitis B (in school or before travel) in order to determine whether any further vaccine is needed. If you have never received the Hepatitis B vaccine, it may be recommended that you get Hepatitis B Immune Globulin (HBIG) and start the Hepatitis B vaccine. HBIG is human immune globulin prepared from plasma of donors who have high antibody levels to Hepatitis B. It provides temporary, but immediate immunity. It is also recommended that you complete the Hepatitis B vaccine series. If a person is immune to Hepatitis B, no further Hepatitis B testing is required.

**Hepatitis C**
You will not receive any treatment to prevent Hepatitis C since there is no current preventative treatment or vaccine.

**Tetanus**
Although tetanus is not a blood borne infection, you may be treated with a vaccine as a part of regular first aid for injuries to skin. Emergency room staff will ask when your last tetanus vaccine was given. It may be recommended that you get a tetanus vaccine, especially if the wound was dirty or deep.

**HIV Post Exposure Prophylaxis (PEP)**
The ER Physician may prescribe medications that may help prevent HIV infection. The decision to start PEP will be based on the on a number of factors including:

- the type and severity of the exposure,
- the source's HIV status/risks,
- the preference of the patient and the physician, and
- post exposure prophylaxis (PEP) treatment is based on limited but supportive studies

Treatments may be discontinued after more information becomes available; however, delaying the start of PEP is not recommended. **Ideally, PEP should be started 1 to 2 hours after exposure, but needs to be started within 6 hours from exposure to be effective.** The long term toxicity of PEP appears minimal; however, data is limited. Side effects may include nausea, headache, diarrhea, fatigue, anemia, and pancreatitis. One month of PEP is required. For the treatment to be effective, you must comply with the medication regimen (right dose at the right time for the prescribed amount of time).

## REPEAT BLOOD TESTS

Additional blood work will be required. It is important to repeat these blood tests as certain infections may take longer to show up. For example, Hepatitis may take up to 6 months to show up in a blood test and HIV may take up to 12 weeks.

**Recommended Blood Tests**

| | |
|---|---|
| **Baseline (at time of exposure)** | HIV, Hepatitis B (HBsAg, anti HBs & anti HBc), Hepatitis C, and liver function tests. |
| **6 weeks** | HIV, Hepatitis B (if required), and Hepatitis C |
| **3 months** | HIV, Hepatitis B (if required), Hepatitis C, and liver function tests |
| **6 months** | HIV, Hepatitis B (if required), Hepatitis C, and liver function tests |
| **1 year** | HIV (if source has both Hepatitis C and HIV or if PEP is being used) |

## PREVENTING INFECTION DURING THE WINDOW PERIOD

Precautions should be taken to prevent possible spread of infections, especially following a **significant** exposure. This means living for the next 6 months as if you may have the infections. This period of time is known as the window period, the time for signs of infections to show up in the blood.

In the next 6 months, you should:

- practice safer sex – use a condom,
- avoid pregnancy or have further consultation if taking PEP for HIV,
- refrain from donating any blood, semen or organs, and
- avoid sharing razors, toothbrushes or nail clippers and files, as trace amounts of blood may be on them.

These precautions should be followed until your health care provider advises you that they are no longer required.

## SOURCE TESTING

Ideally, testing the source person is the most effective method to assess risk. When an injury has happened and the source is known, the health care provider can explain to this person that it is important to complete blood testing (for HIV, HBV, and HCV) so that the injured person can make medical decisions for him/herself (for example post exposure prophylaxis medication).

Consent is needed for:

- the drawing of the blood **AND**
- sharing the test results with the Physician of the exposed person.

If the source refuses to consent to blood work and/or sharing of the results, the exposed person can initiate the Mandatory Blood Testing Act process.

## MANDATORY BLOOD TESTING ACT 2006

The source has the right to refuse consent for the blood work. In this case, the exposed person may be able to apply for mandatory blood testing of the source through the Medical Officer of Health.

To qualify, the exposed person (referred to as the applicant) must apply to the Medical Officer of Health at the local Public Health Unit **where the source resides.**

The applicant must have come into contact with a bodily substance from the source (referred to the respondent) in any of the following circumstances:

- as a result of being a victim of crime,
- while providing emergency health services or emergency first aid to the person, or
- in the course of his or her duties, if he or she belongs to an identified group of individuals, including:
  * Members of the College of Nurses of Ontario,
  * Members of the College of Physicians and Surgeons of Ontario,
  * Medical students in training,
  * Firefighters (including volunteer firefighters),
  * Paramedics and emergency medical attendants,
  * Paramedic students engaged in field training,
  * Persons, who are employed in a correctional institution, place of open custody, or place of secure custody,
  * Police officers, civilian employees of a police service, or
  * First Nations constables and auxiliary members of a police service.

The documents required by the Mandatory Blood Testing Act are time sensitive and **MUST be filed with the Health Unit within 7 days of the exposure.** If forms are not completed and provided to the Medical Officer of Health within this time period, the Mandatory Blood Testing Act process cannot proceed.

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Contact your Designated Officer to assist you with the Mandatory Blood Testing Act.

Forms are available at the Ontario Government website at: www.mcscs.jus.gov.on.ca
or www.forms.ssb.gov.on.ca (form # 008-11-002E)

Deliver completed application forms to:

Medical Officer of Health
Grey Bruce Health Unit
101 17th Street East
Owen Sound ON N4K 0A5
519-376-9420

**For More Information**
Call and speak to a Public Health Nurse in the Infectious Diseases Program at the Grey Bruce Health Unit if you have questions or concerns about blood borne infections and the follow-up after an exposure at 519-376-9420 or 1-800-263-3456.

## CONTACT NUMBERS

- Grey Bruce Health Unit 519-376-9420 or 1-800-263-3456
- Crisis Intervention Team- 519-376-2121
- Guelph HIV Clinic 519-780-5298 or 1-877-780-5298


www.publichealthgreybruce.on.ca

SVC-ID - 001 • 11-21-2014