

2011 Resource Manual for **DESIGNATED OFFICERS'**



Infectious Disease Information Manual for Designated Officers

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Contact Information

Infectious Disease Program

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*** For more disease specific information please contact the Infectious Disease Program***

Manual adapted from the Niagara
Region Public Health.

INTRODUCTION

Exposure of Emergency Service Workers/ Justice Service Workers to Infectious Diseases

The protocol for notification of Emergency Service Workers/Justice Service Workers who may have been exposed to infectious diseases in the course of their work duties was established in 1994 by the Ontario Ministry of Health and Long Term Care.

The purpose of this protocol is to:

1. educate emergency service workers/justice service workers about the risk of occupational exposure to the Infectious diseases;
2. encourage emergency service workers/justice service workers to adopt practices and procedures to protect themselves;
3. provide a system to ensure that emergency service workers/justice service workers can access advice regarding appropriate actions following possible exposure to specified infectious diseases.

Emergency response organizations are responsible for assessing potential risks of exposure to infectious disease, in the workplace and for providing appropriate measures to reduce the risks.

REPORTABLE DISEASES

Effective from August 29, 2008

Health Protection and Promotion Act
Ontario Regulation 559/91

Acquired Immunodeficiency Syndrome (AIDS)

Amebiasis

Anthrax

Botulism

Brucellosis

Campylobacter enteritis

Chancroid

Chickenpox (Varicella)

Chlamydia trachomatis infections

***Cholera**

Clostridium difficile associated disease (CDAD) outbreaks
in public hospitals

Cryptosporidiosis

Cyclosporiasis

Cytomegalovirus infection, congenital

***Diphtheria**

Encephalitis, including:

i. Primary, viral

ii. Post-infections

iii. Vaccine-related

iv. Subacute sclerosing panencephalitis

v. Unspecified

Food poisoning, all causes

Gastroenteritis institutional outbreaks

Giardiasis, except asymptomatic cases

Gonorrhoea

Group A Streptococcal disease, invasive

Group B Streptococcal disease, neonatal

Haemophilus influenza b disease, invasive

***Hantavirus pulmonary syndrome**

***Hemorrhagic fevers, including,**

i. Ebola virus disease

ii. Marburg virus disease

iii. Other viral causes

Hepatitis viral,

i. Hepatitis A

ii. Hepatitis B

iii. Hepatitis C

iv. Hepatitis D (Delta hepatitis)

Herpes, neonatal

Influenza

***Lassa Fever**

Legionellosis

***Leprosy**

Listeriosis

Lyme Disease

***Malaria**

Measles

Meningitis, acute,

i. Bacterial

ii. Viral

iii. Other

Meningococcal disease, invasive

Mumps

Ophthalmia neonatorum

***Paratyphoid Fever**

Pertussis (Whooping Cough)

***Plague**

Pneumococcal disease, invasive

Poliomyelitis, acute

Psittacosis/Ornithosis

Q Fever

***Rabies**

Respiratory infection outbreaks in institutions

Rubella

Rubella, congenital syndrome

Salmonellosis

Severe Acute Respiratory Syndrome (SARS)

Shigellosis

***Smallpox**

Syphilis

***Tetanus**

Transmissible Spongiform Encephalopathy, including:

i. Creutzfeldt-Jakob Disease, all types

ii. Gerstmann-Straussler-Scheinker Syndrome

iii. Fatal Familial Insomnia

iv. Kuru

Trichinosis

Tuberculosis

Tularemia

***Typhoid Fever**

Verotoxin-producing E.coli infection indicator conditions,

including Haemolytic Uraemic Syndrome (HUS)

West Nile Virus

***Yellow Fever**

Yersiniosis

Note: Although not on the list of reportable diseases, Human Immunodeficiency Virus (HIV) infection is also reportable to the Medical Officer of Health since it is the agent responsible for AIDS.

Updated July 2011

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www.hnhu.org • info@hnhu.org

1. ROLES AND RESPONSIBILITIES

1.1 Emergency Service/Justice Service Agency:

- Appoint Designated Officer(DO);
- Assess the risks of occupational exposure;
- Set standards of practice, provide training, and appropriate personal protective equipment;
- Document exposure and complete the Workplace Safety and Insurance Board forms as required;
- Advise the Infectious Disease Program at Haldimand Norfolk Health Unit of any new appointments of DO(s).

1.2 Emergency Service Worker (ESW)/ Justice Service Worker (JSW)

- Be aware of the risks of exposure to the specified Infectious diseases and understand how to prevent or minimize the risk of exposure;
- Prevent exposures by using routine practice, and appropriate procedures and/or personal protective equipment;
- Comply with workplace health and safety policies;
- Report any possible exposure immediately to the DO.

1.3 Designated Officers

- Receive and document reports of exposure from ESW/JSW/;
- Assess the situation and determine if an exposure could have occurred;
- Refer to Designated Officer's Manual regarding assessment for post-exposure and recommendations for action;
- Contact Haldimand Norfolk Health Unit and provide details of the incident if assistance is needed;
- Relay recommendations for post exposure follow-up to any exposed workers;
- Haldimand Norfolk Health Unit may advise that a worker has been exposed to an infectious disease, it is the responsibility of the DO to notify the worker

1.4 Medical Officer of Health/Public Health

Role of the Board of Health/Public Health – Exposure of ESW's/JSW's

1. The board of health shall have an on-call system for receiving and responding to reports of infectious diseases of public health importance on a 24 hours per day, 7 days a week (24/7) basis.
2. The board of health shall ensure that the medical officer of health or designate is available on a 24/7 basis to receive and respond to reports of infectious diseases of public health importance in accordance with this protocol to ensure that :
 - i) Reports of a possible exposure of an ESW/JSW are received, assessed and responded to as soon as possible, but not later than 48 hours (depending on situation and disease, response may be required sooner) after receiving notification; and

- ii) Reports of all infectious diseases of public health importance are received and assessed with particular consideration given to potential exposures of ESWs/JSWs.
3. The board of health shall contact emergency services in their health unit region and request that they identify designated officers for their respective emergency service (i.e. police, fire-fighters, ambulance) in order to facilitate the exposure notification process.
4. The Board of Health* shall advise designated officers in their health unit regarding the possible exposure of an ESW/JSW to an infectious disease of public health importance when made aware by:
 - i) Having the medical officer of health or designate actively seek out contacts of cases with infectious diseases of public health importance, even if a designated officer has not contacted the medical officer of health or designate regarding the possible exposure and no application has been made by an individual under the MBTA
 - ii) Informing the respective designated officer that an ESW/JSW might have been exposed to an infectious disease of public health importance during his/her work. This is not dependent on laboratory confirmation – e.g. the case can exhibit clinical signs and symptoms of a particular infectious disease; and
 - iii) Informing the designated officer regarding any specific actions to be taken based on the designated officer's report, including advising ESW/JSWs to seek medical attention and the initiation of post-exposure prophylaxis if applicable.
- When a designated officer makes an incident report of a possible exposure to an infectious disease of public health importance to the board of health, the board of health shall:
 - i) Review and assess the information provided;
 - ii) Contact health care facilities and other persons (e.g. infection control practitioners and/or attending physicians) to obtain additional information on the specific case, as necessary, based on the assessment of the incident by the medical officer of health, or designate; and
 - iii) Inform the designated officer as soon as possible and no later than 48 hours after receiving notification (depending on the disease) of advised actions to be taken, including accessing medical care by the ESW/JSW.
- Advice shall include, but is not limited to assessing the possible risk of occupational exposure and setting standards of practice, appropriate use of personal protective equipment, training for employees to prevent possible exposures; and
- Follow up with the designated officer to ascertain what action has been taken.
5. In the event that there is a disagreement between the designated officer and the medical officer of health or designate regarding a possible exposure, the designated office may refer the matter to the Chief Medical Officer of Health or designate.

DO NOT expect Haldimand Norfolk Health Unit to:

- Gather information from the ESW/JSW (role of the DO);
- Provide specific treatment advice (role of the ESW/JSW's physician);
- Provide information on the diagnosis of a patient (confidential).

* A decision by the Board of Health to contact the designated officer can be made on a case-by-case basis, based on clinical assessment, which could include, but is not limited to degree of risk, type of exposure, etc.

2. PREVENTION OF INFECTIOUS DISEASE

2.1 The Body's Immune System

When the immune system is functioning effectively, it protects the body from most infectious organisms. The immune system does this both directly by cell attack, and indirectly by releasing chemicals and protective antibodies.

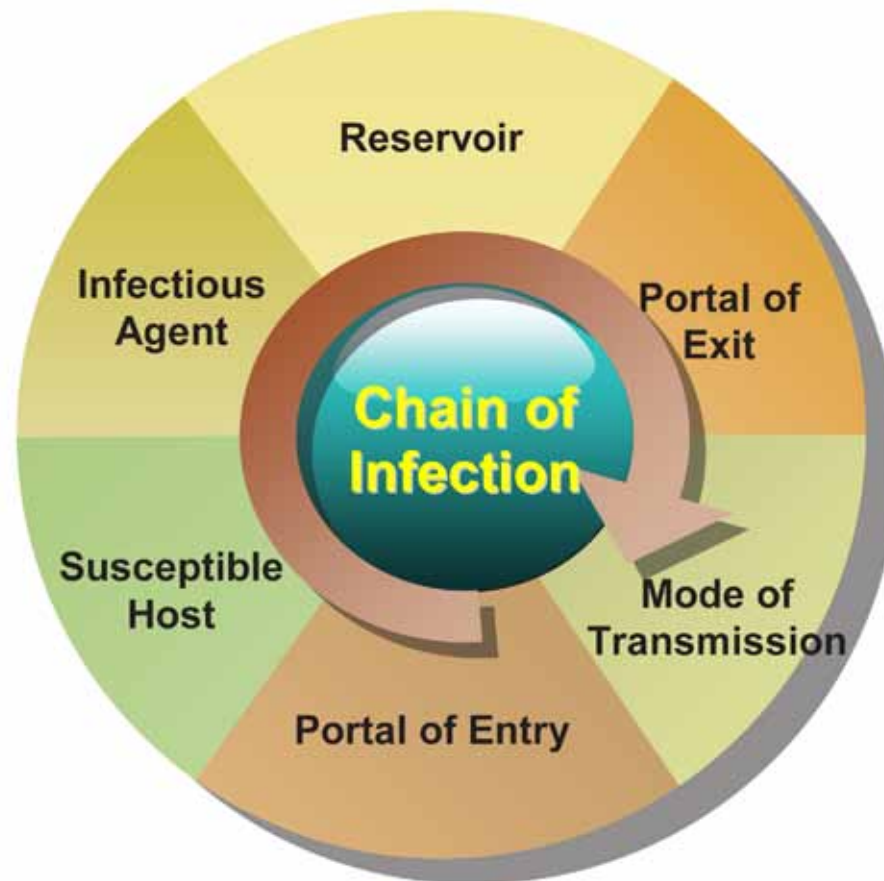
The body's **first line of defence** against the invasion of disease-causing microorganisms is the **skin and mucous membranes**. As long as the skin is unbroken, it provides a physical barrier to most microorganisms. Intact mucous membranes provide similar mechanical barriers within the body. The mucous membranes also secrete chemicals to kill pathogens. For example, the stomach mucosa secretes acid that kills bacteria.

The body uses cells, **mostly white blood cells, and chemicals released from cells**, to directly attack and kill the pathogens and help repair tissues. This is seen in the inflammatory response surrounding an infected cut. This is the body's **second line of defence** that is triggered whenever body tissues are injured.

The body's **third line of defence** is the **immune response**. The immune response provides protection that is targeted against specific disease-causing organisms (antigens) and has memory. After initial exposure to the antigen, the body recognizes the antigen and reacts more vigorously at later meetings to destroy it anywhere in the body. The body produces "antibodies" against the disease and provides immunity.

Immunity to a disease is **acquired either actively or passively**. **Active immunity** is either naturally acquired after having the disease, or artificially acquired after receiving the vaccine for that disease. Vaccines are beneficial in that they provide the immunity without having to suffer the sometimes-severe symptoms of disease. Vaccines stimulate antibody production and promote immunological memory.

Passive immunity is immunity that is obtained from an outside source. Passive immunity is passed from mother to fetus through the placenta into the fetal circulation. This protects the infant from diseases the mother has immunity to, for several months after birth. Passive immunity can also be acquired artificially when a person receives an injection of immune globulin. This medication is derived from donated blood serum from a person who has the antibodies to that disease. The donated antibodies provide immediate protection but it only lasts a short period of time. This type of passive immunity (immune globulin) may be given to a person without immunity, for example: after exposure to Hepatitis B. Hepatitis B vaccine is also administered so that the person can produce his/her own antibodies to provide long-term protection.



The infection process can be described as a chain of infection. Understanding the chain must precede the breaking of the links, which leads to prevention of infection. Each component of this chain is connected to another link in the chain of infection (APIC, 2005).

Infectious Agent – The infectious agent is a biological, physical or chemical entity capable of causing disease. (i.e. virus, bacteria, parasite, fungus, vectorborne)

Reservoir – The reservoir is the place where the infectious agent can survive but may or may not multiply. Human reservoirs usually have the disease, they can be acute or carriers of the disease. A carrier is a person who is capable of spreading the disease, but has no identifiable signs or symptoms of the disease.

Portal of Exit – The portal of exit is the path by which the infectious agent leaves the reservoir i.e. respiratory tract, genitourinary tract, gastrointestinal tract, skin, mucous membranes, placental (mother to fetus), blood.

Mode of Transmission – Mode of transmission is the method by which the organism reaches a susceptible host. (i.e. direct contact, indirect contact, airborne, vehicle (food or water), vectorborne)

Portal of Entry – Portal of entry is the means the infectious agent enters the body; they are the same as portals of exit.

Susceptible Host – The susceptible host may have characteristics that influence the susceptibility and severity of disease.

The control of infectious disease involves breaking this chain of infection by altering the host, the environment or the agent. (i.e. hand washing or wearing of PPE)

2.2 Mode of Transmission

Transmission

Microorganisms are transmitted in by several routes, and the same microorganism may be transmitted by more than one route. There are five main routes of transmission: contact, droplet, airborne, common vehicle, and vectorborne.

1. Contact transmission, the most important and frequent mode of transmission of health care associated infections (HAI), is divided into direct and indirect contact transmission.
 - Direct contact transmission involves a direct body surface-to-body surface contact and physical transfer of microorganisms between an infected or colonized person.
 - Indirect contact transmission involves contact between a susceptible host and usually a contaminated inanimate object, such as equipment instruments, and environmental surfaces. This is often the result of contaminated hands that are not washed which contaminate the object or environment.
2. Droplet transmission, theoretically, is a form of contact transmission. However, the mechanism of transfer of the pathogen to the host is quite distinct from either direct or indirect contact transmission. Droplets are generated from the source person primarily during coughing, sneezing, and talking, and during the performance of certain procedures such as suctioning and administering nebulized medications. Transmission occurs when droplets containing microorganisms generated from the infected person are propelled a short distance through the air (usually less than one metre) and deposited on the host's conjunctivae, nasal mucosa, or mouth. Because droplets do not remain suspended in the air, special air handling and ventilation are not required to prevent droplet transmission; that is, droplet transmission must not be confused with airborne transmission. Droplets can also contaminate the surrounding environment and lead to indirect contact transmission.
3. Airborne transmission occurs by dissemination of either airborne droplet nuclei (small particle residue [5 mm or smaller in size] of evaporated droplets containing microorganisms or dust particles containing the infectious agent (e.g. dust created by rotary powered foot care tools). Microorganisms carried in this manner remain suspended in the air for long periods of time and can be dispersed widely by air currents. These may become inhaled by a susceptible host within the same room or over a longer distance from the source client depending on environmental factors. Environmental controls are important — special air handling and ventilation help reduce airborne transmission. Microorganisms transmitted by airborne transmission include *Mycobacterium tuberculosis*, Rubeola (Measles), Varicella (Chickenpox), and Disseminated Zoster (widespread shingles).
4. Common vehicle transmission applies to microorganisms transmitted by contaminated items such as food, water and medications to multiple hosts and can cause explosive outbreaks. Control is through using appropriate standards for handling food and water and preparing medications.
5. Vectorborne transmission occurs when vectors such as mosquitoes, flies, rats, and other vermin transmit microorganisms; this route of transmission is of less significance in health care facilities in Canada than in other settings.

2.3 Routine Practices and Additional Precautions

Routine practices and additional precautions are a set of infection control precautions that should be used for the care of all individuals, regardless of their diagnosis or presumed infection status.

Routine practices apply to:

- Blood
- All bodily fluids, secretions and excretions regardless of whether they contain visible blood, and
- Non-intact skin and mucous membranes

Personal Protective Equipment (PPE)

To protect yourself, it is essential to have a barrier between you and the potentially infectious material. These barriers include; gloves, gowns, masks, eye shields, and mouth guards.

- Always wear appropriate PPE in exposure situations.
- The necessary PPE should be readily available in the work area.
- Remove the PPE that is torn or punctured, or has lost its ability to function as a barrier to blood borne pathogens.
- Remove PPE before leaving the work area and place in appropriately labelled bags to be disposed of or decontaminated. (Refer to the order for putting on and taking off personal protective equipment fact sheets that follow)

Clean Your Hands

Cleaning your hands is one of the most important, and easiest, practices used to prevent transmission of many infectious diseases, including blood borne pathogens.

- Wash hands, or exposed skin, as soon as possible (i.e. after an exposure incident, removal of gloves or other PPE.)
- Familiarize yourself with location of the nearest hand washing facilities.
- An alcohol based hand rub (ABHR) may be used until soap and running water are available.
- The use of an ABHR is the preferred method of decontamination of hands that are visibly clean and should be available at point of care/readily accessible.

Note: *Alcohol-based hand rub should contain at least 70% of ethyl or isopropyl alcohol*

- In the event hands are visibly soiled but a handwashing sink is not accessible along with soap and water carry out the following steps:
 - a. Use a wet wipe to remove as much visible soil/organic material as possible from hands
 - b. Allow hands to dry
 - c. Use alcohol-based hand rub
 - d. Wash hands when a handwashing sink along with soap and water become available
- Cleaning your hands also includes maintaining intact skin. Regular use of hand lotion is recommended to prevent chapping/cracking of the skin.

Gloves

- Wear gloves when touching blood, body fluids, secretions, excretions, non-intact skin and contaminated items.
- Change gloves between tasks and procedures on the same individual and after contact with material that may contain infectious agents.
- Remove gloves promptly after use, before touching non-contaminated items and environmental surfaces, and before going to another individual.
- Wash hands immediately after removing gloves to avoid transfer of infectious agents to other individuals and environments.

Mask, Eye Protection, Face Shield

- Wear a mask, as per employer policy, and eye protection or a face shield to protect mucous membranes of the eyes, nose and mouth during procedures and activities that are likely to generate splashes, sprays, aerosolization of blood, body fluids, secretions and excretions.

Protective Clothing

- Wear clothing to protect skin and wear extra protective clothing to prevent uniforms or personal clothing during procedures that are likely to generate splashes and sprays of blood, body fluids, secretions or excretions.

Other Precautions

- Safe Handling of needles and other sharp instruments.
- Handle and dispose of potentially contaminated items using carefully established procedures.
- Cover all personal abrasions and areas of damaged skin before contact.
- Refrain from direct care or handling equipment if you have lesions or dermatitis.
- Do not eat, drink or smoke in areas where there is potential for exposure.

For further information on Routine Practices and Additional Precautions, please refer to the following website:

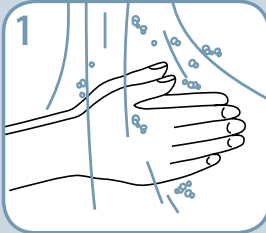
www.oahpp.ca/resources/documents/pidac/RPAP%20-%20PHO%20template%20-%20FINAL%20-%202011-07-26.pdf

For the *Ontario Best Practice Manual: Hand Hygiene*, please refer to the following website:

www.health.gov.on.ca/english/providers/program/infectious/diseases/ic_hh.html

How to handwash

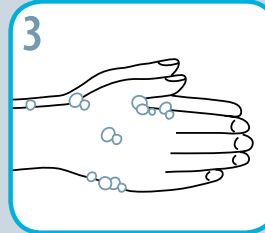
Lather hands for 15 seconds



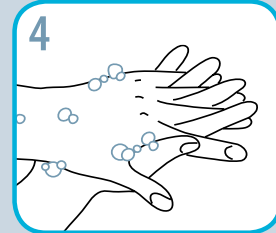
Wet hands with warm water.



Apply soap.



Lather soap and rub hands palm to palm.

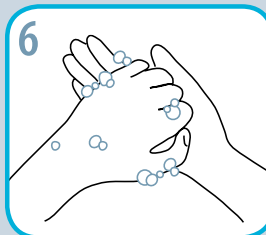


Rub in between and around fingers.

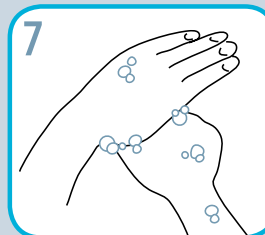
Lather hands for 15 seconds



Rub back of each hand with palm of other hand.



Rub fingertips of each hand in opposite palm.



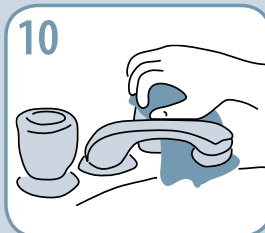
Rub each thumb clasped in opposite hand.



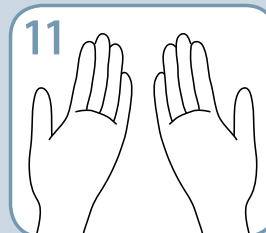
Rinse thoroughly under running water.



Pat hands dry with paper towel.



Turn off water using paper towel.



Your hands are now safe.



**JUST CLEAN
YOUR HANDS**

Catalogue No. CIB-2152908 30M Jan/08 © Queen's Printer for Ontario

How to handrub

Rub hands for 15 seconds



1
Apply 1 to 2 pumps of product to palms of dry hands.



2
Rub hands together, palm to palm.



3
Rub in between and around fingers.



4
Rub back of each hand with palm of other hand.

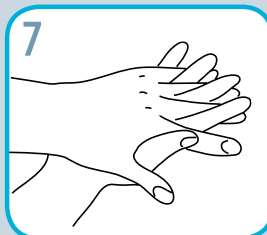
Rub hands for 15 seconds



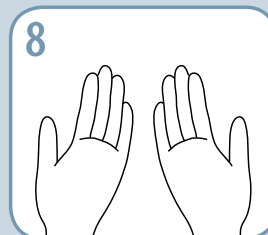
5
Rub fingertips of each hand in opposite palm.



6
Rub each thumb clasped in opposite hand.



7
Rub hands until product is dry.
Do not use paper towels.











8
Once dry, your hands are safe.



**JUST CLEAN
YOUR HANDS**



PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

1	Clean Your Hands	<i>Alcohol-based hand rub, OR...</i>  <i>...Soap & water</i>
2	Put on Gown	 
3a	Put on Mask	
3b	Or N95 Respirator	
4	Put on Eye Protection <i>(Unless one step mask with attached eye protection)</i>	 
5	Put on Gloves	

see reverse for detailed instructions

HOW TO SAFELY USE PPE

- Keep gloved hands away from face
- Avoid touching or adjusting other PPE
- Take off gloves if they become torn; clean your hands before putting on new gloves
- Limit surfaces and items touched



REGIONAL INFECTION
CONTROL NETWORKS

Adapted from the Center for Disease Control: Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007.

Putting on Personal Protective Equipment (PPE)

1. Clean your Hands

- Alcohol-based hand rub is the preferred method for cleaning hands (*when hands are not visibly soiled*)
- Clean between fingers, backs of hands, fingertips and thumbs
- Clean hands for a minimum of 15 seconds

2. Put on Gown

- Select appropriate size and type
- Opening to the back
- Secure neck and waist
- If gown is too small, use two gowns:
 1. Gown #1 ties in front
 2. Gown #2 ties in back

3a. Put on Mask

- Use a fluid resistant procedure mask or surgical mask or one step mask with attached eye protection
- Place over nose, mouth and chin
- Fit flexible nose piece over nose bridge
- Secure on head with ties or ear loops
- Adjust fit

or 3b. N95 Respirator

- Select respirator according to fit testing
- Place over nose, mouth and chin
- Fit flexible nose piece over nose bridge
- Secure on head with top elastic followed by bottom elastic
- Adjust to fit
- Perform a fit check:
 1. Inhale - respirator should collapse
 2. Exhale - check for leakage around face

4. Put on Eye Protection








- Position goggles over head and secure to the head using the ear pieces or headband
- Position face shield over face and secure brow with head band
- Adjust to fit comfortably

5. Put on Gloves

- Select correct type and size
- Put on gloves
- Extend gloves over cuffs of isolation gown

Adapted from the Center for Disease Control: Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007.

THE ORDER FOR TAKING OFF PERSONAL PROTECTIVE EQUIPMENT (PPE)

Where to Take Off PPE • At doorway, before leaving patient/resident room	
1 Take off GLOVES	
2 Take off Gown	
3 Clean Your Hands	Alcohol-based hand rub, OR...  ...Soap & water
4 Take Off Eye Protection (Unless combination mask with attached eye protection)	
5a Take Off Mask	
5b Or Take Off N95 Respirator	
6 Clean Your Hands	Alcohol-based hand rub, OR...  ...Soap & water

see reverse for detailed instructions

HOW TO SAFELY USE PPE

- Keep gloved hands away from face
- Avoid touching or adjusting other PPE
- Take off gloves if they become torn; clean your hands before putting on new gloves
- Limit surfaces and items touched



REGIONAL INFECTION
CONTROL NETWORKS

Adapted from the Center for Disease Control: Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007.
Version Date: December 11, 2008

The order for taking off Personal Protective Equipment (PPE)

Where to take off PPE

- At doorway, before leaving patient/resident room

1. Take off Gloves

- Grasp outside edge near wrist
- Peel away from hand, turning glove inside-out
- Hold in opposite gloved hand
- Slide ungloved finger under the wrist of the remaining glove
- Peel off from the inside, creating a bag for both gloves
- Discard

2. Take off Gown

- Unfasten ties
- Peel gown away from neck and shoulders
- Turn contaminated outside toward the inside
- Fold or roll into a bundle
- Discard in laundry hamper or garbage

3. Clean your Hands

- Alcohol-based hand rub is the preferred method for cleaning hands (*when hands are not visibly soiled*)
- Clean between fingers, backs of hands, fingertips and thumbs
- Clean hands for a minimum of 15 seconds
- Refrain from using patient/resident sink

4. Take off Eye Protection

- Grasp ear or head pieces with ungloved hands
- Lift away from face
- Place in garbage or clean reusable eye protection

5a. Take off Mask

- Untie the bottom, then top tie or remove ear loops
- Lift away from face while holding the ties or loops
- Discard

or

5b. Take off N95 Respirator

- Lift the bottom elastic over your head first
- Then lift off the top elastic
- Lift away from face while holding the elastic
- Discard

6. Clean your Hands

- Immediately after taking off PPE
- Anytime you think your hands have become contaminated
- Avoid from using patient/resident sink if possible

Adapted from the Center for Disease Control: Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007. Version Date: December 11, 2008.

2.6 Immunization

Immunization is one of the most important steps ESWs and JSWs can take to ensure that they are protected against vaccine-preventable diseases (VPD). Immunization makes exposures to VPDs a nuisance rather than a potentially debilitating health hazard.

Due to the nature of their jobs, ESWs and JSWs as well as students training for these jobs are at risk of exposure to communicable disease. ESWs and JSWs have a responsibility to be immunized against communicable diseases both to protect their own health, that of their family and coworkers, and that of their clients, who may otherwise be exposed to vaccine preventable diseases carried by the worker. Immunization protects the worker from severe illness or death.

Workers should be immunized as per the recommendations of Canadian Immunization Schedule, which includes: measles, mumps, rubella, diphtheria, tetanus, polio and pertussis, chickenpox (varicella) and hepatitis B. Annual flu vaccination is highly recommended.

Immunization is not required if you have proof of a serious allergic reaction to immunizations. If you are unsure of your immunization status, a simple blood test may be arranged through your family physician. The blood test will show what antibodies (protection) you may already have to vaccine-preventable disease through either prior exposure or immunization.

Adapted with permission from Peel Region

3. ASSESSING EXPOSURES AND ACTIONS

3.1 Risk assessment

Whether dealing with a victim, suspect, witness, complainant, patient, inmate or resident, ESWs and JSWs are urged to perform situational risk assessments for IPAC in order to assist them with creating a strategy of protection from communicable disease.

The situational assessment does not stop with one singular action. The circular direction of the arrows is representative of the fluidity of the assessment, and implies a continual flow from assessment to planning to action and back to assessment where the process may start again. Situations may change several times before the incident is completed and each change requires a new and appropriate strategic response to protect both the ESW/JSW and the client from exposure.

Adapted with permission from Peel Region

3.2 Diseases Spread by Blood Borne Route

A significant exposure to an infectious disease is one in which the risk of transmission of microorganisms is relatively high. Criteria such as the type of exposure, length of exposure and the nature of the disease help determine the significance.

Blood and Body Fluids:

The following body fluids can transmit certain viruses from one person to another. This occurs when infected fluid enters the body of an uninfected person.

- blood
- semen
- vagina fluids

These fluids could be infected with:

- **Human Immunodeficiency Virus (HIV)**
HIV, the virus that causes AIDS, attacks and seriously damages the body's immune system. An individual who is infected with HIV may suffer more frequent minor illnesses than someone with an intact immune system, and will also be more likely to develop serious health problems such as pneumonia and certain types of cancer. They can also pass this virus on to others for the rest of their lives.
- **Hepatitis B**
Hepatitis B virus (HBV) is a virus that is found in blood, vaginal secretions and semen of people who carry the virus. Only a small percentage of people who get this virus will become ill, and some will carry the virus for the rest of their lives. Most people will recover from the infection, and not carry the virus. The virus affects the liver of those who are infected and those who are carriers of the virus. Hepatitis B can be prevented through vaccination.
- **Hepatitis C**
Hepatitis C virus (HCV) is a virus that is found in blood. Only some of the people who are infected will become ill within weeks or months of exposure, most of the time the illness is mild. Most people who are infected have no symptoms, but carry the virus and can give it to others. People who carry this virus are at risk of developing liver disease (cirrhosis) or liver cancer over time.

An exposure to these viruses can occur as a result of:

- A needle stick injury, with a used needle
- An injury with a sharp object that has been in contact with body fluids
- Damaged skin (rash, or open wound), comes in contact with body fluid
- Splashing of blood or body fluids into the mouth or eye
- Splashing of mouth, eye, or open wound with another body fluid (i.e. vomit) that has blood in it.
- A bite that breaks the skin

An exposure to these viruses does NOT occur as a result of:

- A needle stick, where the needle has not been used
- Blood or body fluids coming in contact with hands covered by intact gloves
- Blood or bodily fluids coming in contact with intact skin
- Blood or body fluids coming in contact with protective clothing
- Splashing of blood or body fluids into the face where a mask and goggles are worn

Assessing the exposure:

- Did the blood or body fluid enter the ESW/JSW's body-through a break in the skin or through mucosal lining (eyes, mouth)?
- Has the ESW/JSW been immunized for Hepatitis B? (Even with immunization there is a small risk that a person is not fully immune to Hepatitis B, antibody levels can be measured to ensure immunity).

Actions:

1. ESW/JSW notifies DO to provide information on the exposure.
2. If there has been an exposure to blood or body fluids, the ESW/JSW should go immediately to one of the Hospital Emergency Departments for a medical assessment by a physician.
3. If the Emergency room physician examines the ESW/JSW and determines that an exposure has occurred, the ESW/JSW should have baseline testing for HIV, Hepatitis B and Hepatitis C. If the blood tests are negative, they should be repeated at three months and six months after the exposure. Baseline testing is important to assess infection from the exposure.
4. The physician who assesses the ESW/JSW will determine the need for prophylactic treatment or vaccination to prevent infection from occurring.
5. The ESW/JSW should be counselled that certain precautions be taken to protect others until the ESW/JSW is certain that he/she has not been infected (this may take several months).
 - **Practice safer sex** by using a latex condom with non-petroleum based lubricant at all times during intercourse or abstain from sexual intercourse.
 - **Do not donate** blood, plasma, organs, tissue or semen.
 - **Do not share** toothbrushes razors, needles or other implements which may be contaminated with blood or body fluids.
 - Speak to your Physician if you are considering becoming pregnant.
 - Speak to your Physician if you are breastfeeding and considering taking HIV medications.

3.3 Diseases Spread By Airborne Route

Small bacteria and viruses (for example: tuberculosis, measles and chicken-pox) can be spread through the air. These micro-organisms are so small that they can float in the air and can be spread through coughing, sneezing, laughing, talking and singing.

Active Tuberculosis (TB)

Tuberculosis (TB) is caused when tiny bacteria, that infect the lungs, cause infection. Most people with TB infection will not get sick or spread TB to others (latent TB infection). Latent TB infection (LBTI) occurs when the TB bacteria lives in your body but does not make you sick. For those who do get sick with TB, the illness may occur months or years later (TB disease). TB disease occurs when TB bacteria are multiplying in your body. TB is treatable with medications. TB usually attacks the lungs, but it can affect any organ including the brain, kidneys or spine. Extrapulmonary TB (TB outside the lungs) is not infectious.

An exposure to TB could occur when:

- Enclosed in a confined area (e.g. ambulance, car) over a long period of time with an individual who is coughing vigorously
- Giving mouth-to-mouth resuscitation without barrier protection

An exposure to TB is unlikely to occur when:

- ESW/JSW is confined in an enclosed area with a coughing individual, when either or both are wearing an N-95 mask that covers mouth and nose (for near 100% protection, use an appropriately fit tested mask)
- Mouth-to-mouth resuscitation was performed using barrier protection or bag valve

Assessing exposure:

- How often, and for how long was the ESW/JSW in contact with the individual?
- How close was the ESW/JSW to the individual?
- Did the ESW/JSW perform any procedures that put him/her in face to face contact with the individual?
- Was the ESW/JSW in a confined space with the patient? Was there any air circulation?
- Did the ESW/JSW use appropriate PPE?

Actions:

1. ESW/JSW should notify DO immediately
2. ESW/JSW should see family physician for assessment of exposure to TB. Alternately, the ESW/JSW may attend Haldimand Norfolk Health Unit for a TB skin test (*NOTE: Recommendations for TB skin testing may differ depending on timing of exposure*).
3. Testing for TB usually includes skin testing done after exposure and again at 8 weeks. The test must be read 48-72 hours later by a doctor or nurse. If the skin test is positive, a chest x-ray is performed to assess for active TB disease. If the ESW/JSW has a positive skin test or other tests indicative of infection, medications may be recommended.

3.4 Diseases Spread by Droplet and/or Direct Contact

Meningococcal Disease (meningitis)

Meningococcal disease is caused by bacteria called *Neisseria meningitidis*. Two serious forms of the disease are meningitis and meningococcaemia. Meningococcal meningitis occurs when the bacteria inflame the membrane that surrounds the brain and spinal cord.

Invasive Group A Streptococcus (GAS)

There are two serious forms of GAS infection. “Streptococcal Toxic Shock Syndrome” is a severe infection associated with shock and multi-organ failure. “Necrotizing Fascitis” or “flesh-eating disease” is a soft tissue infection characterized by rapidly spreading inflammation and breakdown necrosis of muscle fascia (covering of the muscles) and fat.

An exposure to these infections could occur when:

- Giving mouth-to-mouth resuscitation without barrier protection or bag valve
- Someone with one of these infections, coughs, sneezes directly into the face of an ESW/JSW without proper PPE (mask and eyewear)
- Suctioning or intubation without proper PPE (mask and eyewear) where nasal or oral secretions come in contact with mucous membranes
- Contact with fluid from a wound without proper PPE

An exposure to these infections does NOT occur when:

- Barrier protection or bag valve is used for mouth-to-mouth resuscitation
- Uncovered intact skin comes in contact with the saliva, nasal secretions or fluid from a wound of someone with these infections
- Routine Practice is used
- Being in an enclosed space with someone who has one of these infections

Assessing exposure:

- Did the ESW/JSW perform any procedures that put him/her in direct contact with oral/nasal secretions?
- Did the ESW/JSW wear appropriate personal protective equipment (PPE)?
- Did the ESW/JSW have any broken areas on their skin?

Actions:

1. The ESW/JSW should notify the DO immediately. The DO should notify the Haldimand Norfolk Health Unit contact to determine whether the Haldimand Norfolk Health Unit is recommending preventative antibiotics (and vaccine for vaccine preventable strains of meningococcal diseases).
2. The ESW/JSW should seek assessment from his/her family physician as soon as possible. Prophylactic medication may be recommended for ESW/JSW's in direct contact with oral/nasal secretions or direct contact with lesions with inappropriate PPE.
3. Prophylactic medication is not routinely indicated for ESW/JSW's unless there is a confirmed exposure.

4. NOTIFICATION

4.1 Method of Notification

Notification of a possible exposure to one of the specified infectious diseases specified in the Designated Officer (DO) Protocol can occur in the following methods listed below. Procedure for assessing possible exposures following notification is reviewed for each section.

Method 1

Notification Initiated by an Emergency Service Worker (ESW/JSW)

- An ESW/JSW who believes that he/she may have been exposed to one of the specified infectious diseases should immediately report the incident to the DO.
- The ESW/JSW should provide detailed information of the situation, and any other information the DO may need.
- The DO then contacts Haldimand Norfolk Health Unit, as necessary, for recommended actions.

Method 2

Notification Initiated by Haldimand Norfolk Health Unit

- In the course of routine case management for infectious diseases, Haldimand Norfolk Health Unit may receive a report of an infectious disease where there is a concern that ESW's could have been exposed. This notification of possible exposure may come to Haldimand Norfolk Health Unit from several different sources (e.g. physicians, hospitals or other health units)
- The Haldimand Norfolk Health Unit routinely follows up reports of specific Infectious diseases and inquiries regarding potential contacts.
- The Haldimand Norfolk Health Unit shall notify the DO of the appropriate Emergency Service Agency (police, fire, EMS) of the possible exposure.
- Notification will include recommendations for action. **Notification will NOT include disclosure of any information concerning the source of the possible infection in order to maintain confidentiality.**
- **Proper documentation of the exposure is the responsibility of the DO**, and should be done on agency specific forms. There is no requirement to forward these forms to Haldimand Norfolk Health Unit
- If the ESW is confirmed as having had exposure to an infectious disease, Haldimand Norfolk Health Unit will notify them of recommended actions or prophylactic medications (i.e. antibiotics) if necessary. All contact information will be kept confidential.

Method 3

Notification Initiated by Designated Officer

- If an ESW/JSW is concerned about a possible or known exposure to one of the specified Infectious diseases while offering emergency services, the ESW/JSW should notify a DO immediately and complete the appropriate forms (agency specified forms).
- The DO will assess the exposure based on the information provided by the ESW/JSW.
- The DO should refer to the appropriate section of this manual for information on assessment of exposure. (Section 5)
- The DO should determine whether the ESW/JSW could have been exposed to a specified Infectious disease.
- If the DO determines that an exposure could have occurred, he/she will provide the ESW/JSW with recommendations for post-exposure action based on the information in the Designated Officer's Resource Manual.
- If the DO is not sure of the appropriate recommendations for post exposure, the DO should phone Haldimand Norfolk Health Unit, see Haldimand Norfolk Health Unit Contact Information for numbers) The Haldimand Norfolk Health Unit will contact the DO as soon as possible after receiving a call.
- The DO should notify the ESW/JSW of the appropriate actions.

Sites Where Post Exposure Prophylaxis Is Available in Haldimand-Norfolk

Post exposure prophylaxis is offered, after assessment by a physician, and where risk is deemed to be significant, at the following Hospital Emergency Departments:

-
- Norfolk General Hospital, Simcoe
519-426-0750
 - West Haldimand General Hospital, Hagersville
905-768-3311
 - Haldimand War Memorial Hospital, Dunnville
905-774-7431

Criteria Form for Assessment of Exposures (Sample)

1. Type of exposure

☐ **Needlestick**

Size/type of needle: _____

Type of body fluid: _____

Degree if injury: _____

Location of injury: _____

☐ **Sharp Object**

Size/type of needle: _____

Type of object: _____

Degree if injury: _____

Location of injury: _____

☐ **Splashed**

Type of body fluid: _____

Location of splash: _____

☐ **Laceration of Skin**

Type of body fluid: _____

Location of injury: _____

☐ **Non-intact Skin Exposure**

Type of body fluid: _____

Location on skin: _____

☐ **Confined, enclosed area with a coughing victim**

Length of time: _____

☐ **Mouth-to-mouth resuscitation without a mouthpiece**

☐ **Human bite**

☐ **Other:** _____

2. Worker's Vaccination Status

☐ Workers Hepatitis B vaccination Status

Date of Series: 1. ____/____/____ 2. ____/____/____ 3. ____/____/____
year month day year month day year month day

Antibody level: _____ Date: ____/____/____
year month day

☐ Tetanus/Diphtheria

Date of immunization: ____/____/____
year month day

3. Personal Protective Equipment

Did the worker wear the following?

☐ Face Shields/Goggles ☐ Gloves ☐ N – 95 Mask ☐ Protective clothing

Was the personal protective equipment intact?

(e.g. were the gloves torn? Did any body fluids soak through)

☐ YES ☐ NO

4. Assessment Results

Exposure occurred?

☐ YES ☐ NO

5. Recommendations:

Completed By:

Date:

Designated Officer – Incident Assessment Form (Sample)

1. How did the exposure occur?

- ☐ Needlestick/punctured by sharp object
- ☐ Splashed in the eye by _____ (type of body fluid)
- ☐ Laceration of the skin splashed in the mouth by _____ (type of body fluid)
- ☐ Non-intact skin exposed to _____ (type of body fluid)
- ☐ Close contact with someone with a cough, possibly TB
- ☐ Close contact with someone suspected of having meningococcal disease
- ☐ Confined in an enclosed area (e.g. vehicle, aircraft) with someone who was coughing
- ☐ Giving mouth to mouth resuscitation to someone without using a mouthpiece
- ☐ Human, animal or insect bite
- ☐ Shared drinking glasses and other utensils other (describe in detail)
- ☐ Other, please describe: _____

2. What is the worker's immune status?

Are his/her immunizations up to date for:

- ☐ Tetanus and Diphtheria
- ☐ Rubella
- ☐ Polio
- ☐ Measles
- ☐ Tuberculosis

Has he or she received a full course of hepatitis B vaccine?

- ☐ Yes ☐ No

When did he or she receive the last dose of hepatitis B vaccine?

Was serology testing done to determine that he or she responded to the vaccine?

- ☐ Yes ☐ No

When was the last testing done for the antibody?

3. What barrier precautions did the worker wear or use during the incident?

- ☐ Goggles
- ☐ N-95 Mask
- ☐ Gloves
- ☐ Apron or protective clothing
- ☐ Other (describe in detail): _____

4. Were the barriers intact? (e.g. were the gloves torn?)

5. Did any body fluids soak through?

6. What body fluids was the worker exposed to?

- | | |
|---|----------------------------------|
| <input type="checkbox"/> Blood | <input type="checkbox"/> Vomitus |
| <input type="checkbox"/> Saliva | <input type="checkbox"/> Faeces |
| <input type="checkbox"/> Wound Drainage | <input type="checkbox"/> Urine |

7. How long was the contact/exposure?

(e.g. the worker was in the same aircraft or vehicle for # hours, the worker was soaked with (type of body fluid) for at least (length of time) before washing it off.)

8. Did a significant exposure occur?

- ☐ Yes ☐ No
- ☐ Blood borne or
- ☐ Respiratory

9. What other information is available that will help assess exposure?
(e.g. suspected diagnosis of the contact, location of the exposure, such as a crack house, shooting gallery, homeless shelter, center for the developmentally challenged, animal shelter or place with pets, school for children, rock concert hall)

10. Was the Medical Officer of Health contacted?

- ☐ Yes ☐ No

Name and Phone Number: _____

11. What advice was given to the worker?

- ☐ Reassurance
- ☐ Reinforce infection control procedures
- ☐ Informed that an exposure has occurred
- ☐ If an exposure has occurred to follow-up with family physician
- ☐ To seek medical attention at nearest hospital emergency
- ☐ Other: _____

Signature of Designated Officer:

Date:

5. Mandatory Blood Testing Act

The Mandatory Blood Testing Act, 2006 permits a person who, as a result of being a victim of a crime, or while providing emergency health care services or emergency first aid, or in the course of his or her duties (if the person belongs to a prescribed class or while carrying out a prescribed activity) came into contact with the bodily substance of another person to apply to a medical officer of health to have the blood of the other individual analyzed for: Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS), Hepatitis B and Hepatitis C.

The Mandatory Blood Testing Act (MBTA), received Royal Assent on December 20, 2006, and came into force on August 10, 2007. Both the Act and Ontario Regulation 449/07 (the Regulation), made under the Act, establish the requirements and procedures which must be followed with respect to an application for mandatory blood testing.

Section 22.1 of the Health Protection and Promotion Act (Bill 105) and Ontario Regulation 166/03 have been repealed and are no longer in force.

The Mandatory Blood Testing Act allows for applications to be made by the following classes of persons:

- An Applicant who came into contact with a bodily substance of the Respondent in any of the following circumstances:
 - (i) As a result of being the victim of crime;
 - (ii) While providing emergency health care services or emergency first aid to the Respondent, if the Respondent was ill, injured or unconscious as a result of an accident or other emergency;
 - (iii) In the course of his or her duties if the Applicant belongs to one of the following prescribed classes:
 - Persons employed in a correction institution, place of open custody or place of secured custody, as those terms are defined in the Ministry of Correctional Services Act;
 - Police officers as defined in the Police Services Act, employees of a police force who are not police officers, First Nations Constables and auxiliary members of a police force;
 - Firefighters, as that term is defined in the Fire Protection and Prevention Act, 1997;
 - Paramedics and emergency medical attendants, as those terms are defined in the Ambulance Act;
 - Paramedic students engaged in field training;
 - Members of the College of Nurses of Ontario; and
 - Members of the College of Physicians and Surgeons of Ontario and medical students engaged in training.

5.1 Background

The Mandatory Blood Testing Act 2006, came into force on August 10, 2007. The act reduces the time needed to obtain a mandatory blood test to less than three weeks. Previously, the process could take more than two months.

The new law ensures that police officers, firefighters, correctional services staff and others get faster access to information that can help them decide on the best way to reduce the risk of illness should they be exposed to a serious disease.

In the course of their work, emergency first aid providers can be exposed to bloodborne diseases such as HIV/AIDS, hepatitis B or C. Victims of crime, Good Samaritans and others could be similarly exposed.

Eligible applicants

Anyone may apply to a Medical Officer of health to have a blood sample of another person analyzed if he or she has come into contact with a bodily substance of that person in any of the following circumstances:

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

Application process

Applications must be submitted to the Medical Officer of Health in the health unit where the respondent lives.

Applicants can find the phone number of health units and the areas they cover on the application form.

All relevant forms, including the application report, respondent report and physician report, can be accessed via the Ministry of Community Safety and Correctional Services website at www.mcscs.jus.gov.on.ca/english/about_min/MandatoryBloodTesting/blood_testing.html

All forms related to the Mandatory Blood Testing Act 2006, can be found on the following website: www.mcscs.jus.gov.on.ca/english/about_min/MandatoryBloodTesting/Forms/mbt_forms.html

The Laboratory Requisition (form #008-004) is only available in hardcopy from your nearest Public Health Unit or Regional Public Health Laboratory. The contact information for the Public Health Units and Regional Laboratories is available from the Ministry of Health and Long Term Care at: www.health.gov.on.ca/english/public/contact/contact_mn.html

Role of the Medical Officer of Health

The Medical Officer of Health screens applications to make sure they meet the requirements of the act.

- The Medical Officer of Health will notify the applicant in writing within two days of making a decision not to proceed with the application if the application does not meet the requirements of the act.
- If the requirements are met, the Medical Officer of Health will attempt to contact the respondent and request that the respondent provide a voluntary blood sample for analysis
- If the respondent does not provide a blood sample voluntarily within two days of the Medical Officer of Health receiving the application, the application will be referred to the Consent and Capacity Board, which will hold a hearing to decide whether to issue a mandatory order.*

** NOTE: The Medical Officer of Health can continue to seek voluntary compliance even after the application is referred to the Consent and Capacity Board. If the respondent provides a sample voluntarily after the application is referred to the Consent and Capacity Board, the Medical Officer of Health shall notify the Board and withdraw the referral of the application.*

Role of the Consent and Capacity Board

The Consent and Capacity Board is an independent body that conducts hearings under the Mental Health Act, the Health Care Consent Act, the Personal Health Information Protection Act and the Substitute Decisions Act. The members of the Board include psychiatrists, lawyers and members of the general public.

The Consent and Capacity Board must begin and complete a hearing within seven days after receiving a referral of an application and must make its decision within one day of the hearing ending. The Board will provide the applicant, the respondent and the Medical Officer of Health with a copy of the Board's decision and a copy of any order made by the Board within one day after the day the hearing concludes.

- A decision of the Board is final. There is no right of appeal. However, both the applicant and the respondent have the right to apply for a judicial review of the decision by the Superior Court of Justice.
- The respondent has seven days from the date the order is made to comply.
- If the respondent voluntarily complies, he/she has a blood sample taken by a physician. The respondent may also provide other evidence of whether he or she is infected with one of the listed communicable diseases. This evidence may include a Laboratory Report or a report or letter signed by a physician.
- If the respondent does not comply with an order made by the Board, the applicant may apply to a judge of the Superior Court of Justice for an order requiring the respondent to comply with the order of the Board.

The following processes are applicable to blood samples provided both voluntarily or by order of the Consent and Capacity Board:

Identification of respondent

At the time of the blood test, the respondent must present valid photo identification. If the person does not have photo identification they will be required to provide two pieces of identification with both their name and signature.

If proper identification is not produced, the blood sample will not be taken.

Notification protocol for blood sample results:

The Central Public Health Laboratory will send the results of the blood test to the applicant's and respondent's physicians. At the same time, notice is sent to the applicant and respondent that the results of the blood test have been sent to their respective physicians.

Penalty for non-compliance

Anyone who fails to obey an order of the Consent and Capacity Board, or contravenes or fails to comply with any requirement under the Mandatory Blood Testing Act, 2006, or of a regulation under the act is guilty of an offence and liable on conviction to a fine of not more than \$5000 for every day or part of a day on which the offence occurs or continues.

5.2 Forms

Form 1- Physician Report

[www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/AttachDocsPublish/008-11-001E~1/\\$File/008-11-001E.pdf](http://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/AttachDocsPublish/008-11-001E~1/$File/008-11-001E.pdf)

Form 2- Applicant Report

[www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/AttachDocsPublish/008-11-002E~1/\\$File/008-11-002E.pdf](http://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/AttachDocsPublish/008-11-002E~1/$File/008-11-002E.pdf)

5.3 Questions and Answers

What is the purpose of the Mandatory Blood Testing Act, 2006?

The Mandatory Blood Testing Act, 2006, reduces the time for getting a mandatory blood test to less than three weeks. Before the Act, the process could take more than two months.

The new law makes sure that police officers, firefighters, correctional services staff and others get faster access to information that can help them decide the best way to reduce the chances of getting sick should they be exposed to a serious disease.

What diseases are listed as communicable diseases under the act?

- Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS)
- Hepatitis B
- Hepatitis C

Should I start treatment immediately following exposure, or wait for my application to be processed?

Anyone who believes he or she has been exposed to a communicable disease as a result of coming into contact with a bodily substance of another person should immediately contact a medical professional who can help assess the risk of infection and decide whether to start treatment or preventive measures.

Who can submit an application under the Mandatory Blood Testing Act, 2006?

Anyone may apply to a Medical Officer of Health to have a blood sample of another person analyzed if he or she has come into contact with a bodily substance from that person in any of the following circumstances:

- As a result of being a victim of crime
- Persons who are employed in correctional institution, place of open custody or place of secure custody
- Police officers, civilian employees of a police service, First nations constables and auxiliary members of a police service
- Firefighters (including volunteer firefighters)
- Paramedics and emergency medical attendants
- Members of the College of Nurses of Ontario
- Paramedic students in the field of training
- Members of the College of Physicians and Surgeons of Ontario
- Medical students engaged in training
- Paramedic students engaged in field training

Where should applications be submitted?

Applications must be submitted to the Medical Officer of Health in the health unit where the respondent lives.

At the bottom of the application form there is a phone number that applicants can call to obtain a list of health units and the areas they cover.

Who is responsible for screening the application?

The Medical Officer of Health is responsible for screening the application to make sure it meets the requirements of the act and for seeking voluntary compliance from the respondent.

Is there a time restriction on making an application under the Mandatory Blood Testing Act, 2006?

The Medical Officer of Health in the health unit where the respondent lives must receive an application no more than seven days after the date of the occurrence. However, if the deadline falls on a Saturday, Sunday or other holiday, the deadline is extended by one day.

What happens when a Medical Officer of Health receives an application?

Once the application has been screened to make sure it meets the requirements of the act, the Medical Officer of Health will attempt to contact the respondent and request that the respondent voluntarily provide a blood sample for testing.

What steps are taken if the respondent fails to provide a blood sample voluntarily?

If the respondent does not provide a blood sample within two days of the Medical Officer of Health receiving the application, or if the respondent cannot be located in time, the application will be referred to the Consent and Capacity Board. The Board will hold a hearing to decide whether to issue a mandatory order.

When will the Consent and Capacity Board hold the hearing?

The Consent and Capacity Board must begin and complete a hearing within seven days of receiving an application from a Medical Officer of Health. The Board must make its decision within one day after the hearing ends. However if this day falls on a Saturday, Sunday or any other holiday, the deadline will be extended by one day.

How will the Consent and Capacity Board inform me of their decision?

The Board will provide the applicant and the respondent (or their representative), as well as the Medical Officer of Health, with a copy of the Board's decision and a copy of any order made by the Board.

What can I do if I disagree with the Consent and Capacity Board's decision?

A decision of the Board is final. There is no right of appeal. However, both the applicant and the respondent have the right to apply for a judicial review of the decision by the Superior Court of Justice.

How long does the respondent have to comply with an order of the Consent and Capacity Board?

The respondent has seven days from the date the order is made to comply.

What are the penalties for failing to comply with an order made by the Consent and Capacity Board?

Every person who fails to obey an order made by the Board is guilty of an offence and is liable on conviction to a fine of not more than \$5,000 for every day or part of a day on which the offence occurs or continues.

I submitted an application under the previous provisions of the Health Protection and Promotion Act 1990. My application has not been processed. Do I have to make a new application now that the Mandatory Blood Testing Act, 2006, is in effect?

Any order that was made by a Medical Officer of Health under the previous legislation (section 22.1 of the Health Protection and Promotion Act) before the new legislation came into effect remains effective after the new Act comes into effect.

If an application was made to a Medical Officer of Health under the previous legislation, but an order has not yet been made, the application will be processed under the new Act.

If the Medical Officer of Health began a hearing under the previous legislation before the Mandatory Blood Testing Act, 2006, came into force, the application will be dealt with under the previous legislation.

Where can I find the mandatory blood testing forms?

All forms related to the Mandatory Blood Testing Act 2006, can be found on the following website:
www.mcscs.jus.gov.on.ca/english/about_min/MandatoryBloodTesting/Forms/mbt_forms.html



HIV/AIDS Facts

What is it?

HIV is a virus that attacks your immune system. Over time your immune system may grow weak and you can become sick with different illnesses.

Eventually, your immune system will no longer be able to defend your body from infections, diseases or cancers that can kill you. This advanced stage of the HIV disease is called AIDS. (Source: Canadian Health Network)

How is HIV spread?

HIV is found in the following types of body fluid:

- Blood.
- Semen.
- Vaginal fluid.
- Breast milk.

It can be passed from an infected person to another through:

- Unprotected sex (including vaginal, anal or oral sex, or by sharing sex toys).
- Sharing needles, syringes, water, spoons or filters to inject drugs or steroids.
- Sharing needles or jewellery for a body piercing.
- Sharing acupuncture needles.
- Sharing sex toys, razors or toothbrushes.
- An infected mother to her child during pregnancy or delivery, or during breastfeeding.

In each of these routes, certain conditions must exist for HIV transmission to take place:

- There must be a source of infection (such as a body fluid infected with HIV).
- There must be an entry site into the bloodstream. This could be a break in the skin or absorption through the skin lining.
- There must be enough of the virus in the body fluid to establish infection.
- Blood, semen and vaginal fluid are of the greatest concern because of their high quantity of the virus.
- You cannot get HIV by touching someone or holding hands, drinking from a water fountain, sharing a plate or utensils, or by being bitten by a mosquito.

What are the symptoms of HIV/AIDS?

- After initial exposure to HIV, a person may develop a mono-nucleosis type illness that can last one to two weeks.
- This is acute or primary HIV infection.
- Others may notice flu-like symptoms after three to six weeks. Some may never notice anything.
- While many people living with HIV can be healthy for months to years, they can still infect others.

As the infection progresses, there may be severe or long-lasting symptoms such as:

- Swollen glands in the neck, underarm or groin area.
- Recurrent fever including "night sweats".
- Rapid weight loss for no apparent reason.
- Diarrhea.
- Decreased appetite.
- Constant tiredness.
- Recurring vaginal yeast infections.
- Changes in the menstrual cycle.
- Oral thrush (white cottage cheese-like coating on the tongue) or unusual mouth sores.

How can I prevent HIV/AIDS?

You can protect yourself by:

- Not having sexual intercourse.
- Having sex with only one partner who only has sex with you (mutual monogamy) if both of you are uninfected.

HIV transmission can be greatly reduced by:

- Using latex or polyurethane condoms or female condoms correctly from start to finish with each act of vaginal or anal intercourse.
- Using a cut open latex condom or a dental dam during oral sex on a female.
- Using a latex condom correctly during oral sex on a male.
- Using only water-based lubricants with latex condoms. (Oil-based lubricants like Vaseline can weaken a latex condom and make it break.)
- Having "outercourse" – activities that do not involve penetration such as kissing, massaging, hugging, body-rubbing, masturbation.

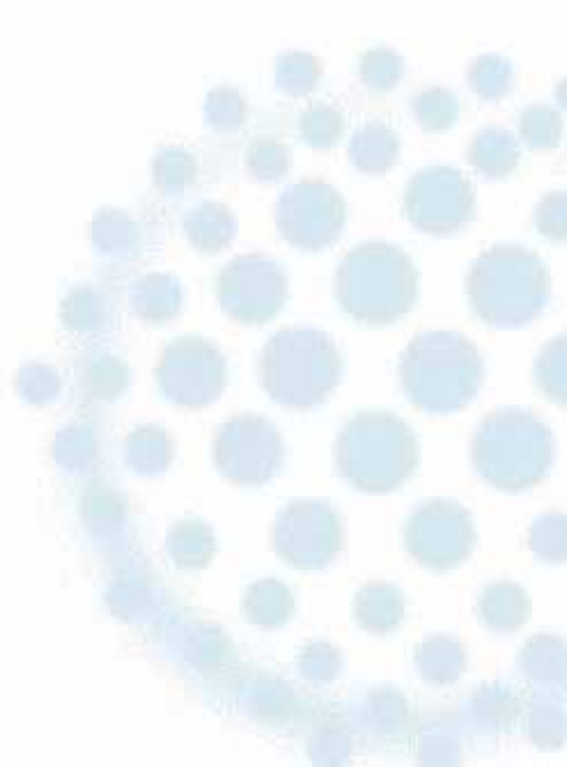
- Not sharing needles, syringes, water, spoons or filters for injecting, or other skin-piercing instruments.

How can I tell my partner(s) about a positive result for HIV/AIDS?

- If you have tested positive for a sexually transmitted infection (STI) or HIV, previous partners will need to be told. This process is called partner notification.
- Partners will need to be told of the exposure to the STI or HIV, and given the opportunity for counselling, assessment, screening and treatment.
- The contacts could be needle-sharing partners, the parents of an infant who tests positive, or sexual partners.
- There are laws and regulations in all provinces and territories that require health care providers to report specific diseases.
- Public health authorities are responsible for making sure that partners are notified, as they have a right to knowledge and ongoing health. They will inform you on how far back to go in time in notifying partners.
- Public health authorities are available to assist you with informing your partners. If you wish, it can be done anonymously for you, and your name will not be revealed.

If you have further questions, please contact your local health unit.

Adapted from Halton Regional Health Unit.



Updated July 2011



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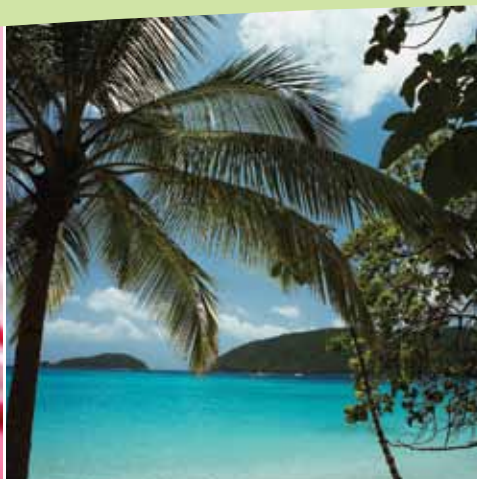
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Hepatitis B



What is hepatitis B?

Hepatitis B is a serious infection of the liver and is caused by the hepatitis B virus. Hepatitis B is one of the most common strains of viral hepatitis (other common strains being hepatitis A virus and hepatitis C virus).

What are the symptoms?

Some people with hepatitis B have no symptoms and may infect others without knowing. Many people who become infected with hepatitis B never feel sick and recover completely. Others get a brief, acute illness and often become tired, feverish, lose their appetite, suffer from vomiting and diarrhea, and sometimes get jaundice (yellowing of the skin).

What is a hepatitis B carrier?

Anyone who is chronically infected with hepatitis B virus is called a “carrier” of the virus. The risk is greatest for infants born to mothers who are hepatitis B carriers. Without immediate vaccinations, approximately 90% of these babies will develop chronic hepatitis B infection. Hepatitis B carriers have not developed immunity as a result of infection and may have traces of the hepatitis B virus in their blood and

body fluids for the rest of their lives. At times there may be ongoing liver damage and at other times infection may be inactive. Most carriers appear healthy and symptom free, but some will develop chronic hepatitis, cirrhosis or liver cancer years after becoming infected with hepatitis B virus.

How is the hepatitis B virus spread?

A person who has acute hepatitis B or who is a carrier can spread hepatitis B virus to other people through his/her blood and other body fluids or by sexual contact. In Canada, hepatitis B is spread mainly through unprotected sexual contact. The virus can also be spread by sharing needles, by body and ear piercing, by tattooing and by being stuck with a used needle on the job. An infected mother can pass the virus to the baby during birth. Rarely, hepatitis B can be spread by a bite from an infected person. Hepatitis B is not spread by water, food or by casual contacts that occur at schools or workplaces.

As a carrier, what should you do to prevent passing the virus to others?

- Practise safe sex: use condoms!

Encourage your sex partner(s) and all people who live with you to get hepatitis B testing. If they have not already been infected, they should be vaccinated against hepatitis B.

- If you are pregnant, or planning to have children, there is a high risk of passing the virus to your baby around the time of birth. Your baby may develop chronic hepatitis B. However, the baby can be protected through immunization. At birth, your baby will receive hepatitis B immune globulin (HBIG) and the first of three doses of the hepatitis B vaccine. The second dose is given when the baby is one month old and the third at six months old. This gives your baby a 95% chance of not being infected with hepatitis B. Although hepatitis B screening is part of the prenatal testing in some provinces, be sure to discuss this matter with your family doctor or obstetrician.
- Tell your doctor, dentist and other health care providers that you are a carrier so that they can take necessary precautions.
- Never share your toothbrush, razor, nail file or other personal items that might contain traces of blood.
- Get rid of articles contaminated with your blood (e.g., tampons, dental floss, bandages, needles, broken glass)

by placing them in a protective container.

- Never donate blood or semen.
- Cover all cuts and sores with bandages. Avoid swimming in public pools if you have open cuts and sores.
- Clean up spills of your blood with freshly diluted household bleach (one part bleach, nine parts water) and let it stand for 10 minutes before wiping it away. The bleach will kill any hepatitis B virus left on the surface.
- Refrain from preparing food if you have bleeding cuts or sores on your hands.

Who is at risk of getting hepatitis B?

Without immunization, various people are at risk of infection:

- Babies born to mothers who are hepatitis B carriers.
- Other people living in the same household as a carrier.
- Sexual partners of carriers.
- Anyone whose occupation involves increased exposure to blood and body fluids (e.g., health care workers, law enforcement officers, firefighters, etc.).
- Injection drug users.
- People in parts of the world where hepatitis B is relatively common, such as Asia, sub-Saharan Africa, southern and eastern Europe, and the Pacific islands.

How is hepatitis B diagnosed?

Diagnosis is made through blood tests.

Is hepatitis B a preventable disease?

Yes! Hepatitis B can be prevented by:

- Adopting safe sex practices.
- Active immunization with a hepatitis B vaccine. Three injections of this vaccine within a six month period provide long-lasting protection against hepatitis B in the majority of people.
- Administering hepatitis B immune globulin to anyone who has had recent contact (seven days or less) with infected blood or body fluids.
- Screening all pregnant women and immunizing babies born to mothers who are hepatitis B carriers.

Is there treatment for hepatitis B?

Yes. Some people who are seriously ill may be given a medication to help fight the virus. However, most people either improve or get well without medication. About 1% of infected people die.

How can I get free hepatitis B vaccine?

Hepatitis B vaccine is provided free for Grade 7 students and given at school by Health Unit nurses. The program is run

annually and information is sent home to parents of Grade 7 students at the beginning of that school year. This is not a required vaccine, but is highly recommended.

It is also provided free for intravenous drug users, persons with Hepatitis C, persons having multiple sex partners (more than one in six months), men who have sex with men, household and sexual contacts of acute cases and chronic carriers, infants born to infected mothers, persons awaiting liver transplant, hemophiliacs and others receiving repeated infusions of blood or blood products, persons on renal dialysis, and children less than seven years old whose families have immigrated from countries with a high prevalence of hepatitis B.

Is there a special diet for hepatitis B carriers?

There is no need to follow a special diet as long as you eat healthy, nutritious food, as outlined in Canada's Food Guide. Alcohol can also damage your liver, so either avoid it altogether or limit your intake to no more than two drinks per day.

For more information, please contact a member of the Haldimand-Norfolk Health Unit's Communicable Disease Team.



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Hepatitis C

A disease that affects tens of thousands of Canadians

What is hepatitis C?

Hepatitis C is a disease that affects the liver and is caused by the hepatitis C virus (HCV). The word hepatitis means “inflammation of the liver”. Hepatitis C (formerly known as non-A, non-B hepatitis) is found in the blood of infected people. It is different from the other viruses that cause hepatitis A and hepatitis B and was first discovered in 1989.

How do I know if I have hepatitis C?

The only way to find out for sure is by having a blood test. The test for hepatitis C is based on the detection of antibodies to the virus, not the virus itself. Antibodies are substances produced by the body in response to infection and are found in the blood. A positive hepatitis C antibody test indicates you have been infected with the hepatitis C virus at some time in your life. You are then considered “hepatitis C positive.”

Who should be tested for hepatitis C?

- People who had blood/blood product transfusions in Canada before 1990.
- Anyone who has ever shared needles, spoons, straws and other drug-related equipment for drug use.
- Anyone who has had tattooing, ear and/or body piercing or acupuncture done with “shared” or “improperly cleaned” needles.
- People who share personal items (e.g., razor or toothbrush) with someone who has hepatitis C.
- People exposed to needle stick injuries (e.g., health care workers).
- Hemodialysis patients.

How is hepatitis C spread?

Hepatitis C virus is present in the blood of

infected people. This virus is not easily spread but it can be passed on through blood-to-blood contact with an infected person such as, by **sharing needles**. The Canadian Red Cross began testing the blood supply for hepatitis C virus in 1990, so the possibility of becoming infected from the blood supply is very small. Unfortunately, prior to testing in 1990 and the improved testing in 1993, some people were infected with the virus from getting **blood or blood product transfusions**. Because hepatitis C takes years to develop, people are being diagnosed with it many years after having had a blood transfusion.

Getting a **tattoo** done is another way that hepatitis C is spread. Even though the needles are new, there may be a risk if the artist re-uses ink from a container that has been used to tattoo others.

Acupuncture (a form of body piercing) is also a way that hepatitis C can be spread, if the needles are reused without proper sterilization.

Can hepatitis C be transmitted by sexual intercourse?

The risk of spreading the hepatitis C virus by sexual means, either heterosexual (straights) or homosexual (gays), is very low. Studies have shown that long-term sexual partners (for 20 years or more) of those infected with hepatitis C are at risk of becoming infected themselves. Although the risk is low, it is not absent.

Any long-term sexual partners (10 years or more) of a hepatitis C-infected individual should be tested for hepatitis C virus. In a long-term relationship, the choice to use condoms to prevent spreading this virus is up to the individuals involved. This decision should be based on careful consideration of the risk. A discussion with a family doctor or other health care provider may be helpful. The risk of getting the virus during sexual activity may

be increased when open sores are present and during a woman’s menstrual period. Barrier methods such as condoms should be used in these situations.

Can babies get hepatitis C from their mothers?

Yes, there is a small chance that the hepatitis C virus can be passed to the newborn either before OR at the time of birth. Potential, expectant and/or new parents should be advised that there is about a 6% risk of hepatitis C-infected pregnant women passing this virus to their newborns.

Although data available on the safety of breastfeeding is limited, studies show it does NOT pass the virus from mother to baby. However, if the nipples are bleeding or cracked, it is recommended that breastfeeding be stopped until they are healed.

What do I do if I test positive for hepatitis C?

If you find out you have hepatitis C, you will be one of tens of thousands of Canadians who have the virus, with more than 5,000 or so becoming infected each year. Your family doctor may refer you to a specialist to determine whether or not you need treatment.

Learn more about hepatitis C and how it may affect you. Be monitored by your doctor and ask questions. Finally, learn what steps to take to prevent the spread of infection.

What are the signs and symptoms of hepatitis C infection/disease?

When some people are first infected with hepatitis C virus, they often experience no symptoms and may feel quite well. Others may feel unusually tired and/or nauseated and may develop jaundice (yel-

lowing of the eyes and skin).

Scientists are still studying the long-term health risks for persons infected with the virus. Early diagnosis and lifestyle changes can prevent further damage to the liver. People who get hepatitis C as adults and do not regularly drink alcohol are less likely to develop life-threatening problems from this disease. At most, 20 people out of 100 with chronic hepatitis C develop cirrhosis (scarring) of the liver over 10 to 30 years.

Chronic hepatitis C liver infection may persist for many years with no symptoms at all, although it may be damaging liver cells at a very low level. Some hepatitis C-infected people do not have symptoms because the liver has a large reserve and can function normally even when damaged. The severity of liver disease caused by the virus varies from person to person for unknown reasons.

How will I know if my liver is okay?

Blood tests may be performed every so often by your doctor to monitor the health and functioning of your liver. Other tests such as liver biopsy may also be performed. A liver biopsy is a medical procedure in which a small sample of liver is removed for analysis. Your doctor or liver specialist (hepatologist) will advise you if a liver biopsy is necessary.

Is there treatment for hepatitis C infection?

Your doctor or liver specialist will advise you if you are a candidate for treatment. In the past the only treatment, was with a drug called **interferon**. Because interferon does not have a direct anti-viral effect, most people had a very poor response to this treatment. Studies show that only 6% of people were able to get rid of hepatitis C virus after six months of continuous treatment with this medication.

Another drug, **ribavirin**, has been used recently **with interferon**, and has improved the success rate of treatment. Studies show that about 40 percent of people using this combination therapy completely get rid of the virus from their body. Success ranges from 20-80% and depends on the amount of

liver scarring, the amount of virus in the body and the type of hepatitis C virus. The combination treatment therapy is taken anywhere between six to 12 months. Other treatment options are being developed.

While taking both drugs (the combination therapy), and for six months following the completion of the medication, it is extremely important that both you and your partner use birth control methods. If you become pregnant while taking this treatment, serious birth defects may occur.

How can I prevent the spread of hepatitis C?

Hepatitis C is spread through blood-to-blood contact. The risk of spreading the virus to people within the home is unknown but probably very low.

Hepatitis C virus-positive people should:

- Avoid alcohol (including spirits, wine, beer) as this is harmful to the liver.
- Avoid sharing razors, toothbrushes, nail files and other personally used items such as these, as there can be small amounts of blood on these items.
- Cover all open sores or breaks in the skin.
- Clean up blood spills with soap and water; then disinfect with bleach.
- Throw out all bloodstained items in a plastic bag.
- Never use a needle (syringe) or any drug-related equipment that has been used by someone else.
- Never donate blood, body organs, other tissue or semen.
- Persons with hemophilia and related bleeding disorders on self-infusion programs should follow all instructions carefully.
- Advise the doctor, nurse, dentist and hospital staff that you have hepatitis C.
- Get vaccinated against hepatitis B. This series of three vaccinations is provided **free** of charge and can be given to you by your doctor or at the Health Unit.
- Get vaccinated against hepatitis A. This vaccine is provided **free** of charge and can

be given to you by your doctor or at the Health Unit.

- Before you have sex, tell your partner that you have hepatitis C.
- Practice safer sex by using a condom.

How do I live with hepatitis C?

You will need to make some changes in your life to keep healthy and to prevent further damage to your liver. You will have to:

- Stop drinking alcohol – no beer, wine, or spirits.
- Eat foods that will keep you healthy, as in lots of fresh fruits and vegetables. Eat foods that are reduced in fat, cholesterol, sugar and fewer processed foods.
- Get shots (vaccinations) to make sure you never get hepatitis A or hepatitis B.
- Exercise regularly, as this helps to improve your sleeping pattern.
- Avoid taking medications and/or pain killers such as acetaminophen (Tylenol) and sleeping pills that can damage your liver.

Where can I get more help?

- Your doctor.
- Haldimand-Norfolk Health Unit
Simcoe: (519) 426-6170
Caledonia: (905) 318-5367
www.hnhu.org
- Canadian Liver Foundation
1-800-563-5483 • www.liver.ca
- Hepatitis C Society
1-800-652-HEPC
- Hepatitis Neighborhood
www.hepatitisneighborhood.com
www.hepcare.com • www.hepnet.com
- Health Canada • www.hc-sc.gc.ca/english
- Hepatitis Foundation • www.hepfi.org

Adapted from:

Haldimand-Norfolk Health Unit – Hepatitis C Patient Information Package
Canadian Liver Foundation – Hepatitis C – Comprehensive information about a disease affecting tens of thousands of Canadians
Canadian Liver Foundation – Facts About Hepatitis C – A Liver Disease

Updated May 2010



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TB Facts

Tuberculosis: General Information

What is TB?

Tuberculosis (TB) is a disease caused by germs that are spread from person to person through the air. TB usually affects the lungs, but it can also affect other parts of the body, such as the brain, the kidneys, or the spine. A person with TB can die if they do not get treatment.

What Are the Symptoms of TB?

The general symptoms of TB disease include feelings of sickness or weakness, weight loss, fever, and night sweats. The symptoms of TB disease of the lungs also include coughing, chest pain, and the coughing up of blood. Symptoms of TB disease in other parts of the body depend on the area affected.

How is TB Spread?

TB germs are put into the air when a person with TB disease of the lungs or throat coughs, sneezes, speaks, or sings. These germs can stay in the air for several hours, depending on the environment. Persons who breathe in the air containing these TB germs can become infected; this is called latent TB infection.

What is the Difference Between Latent TB Infection and TB Disease?

People with latent TB infection have TB germs in their bodies, but they are not sick because the germs are not active. These people do not have symptoms of TB disease, and they cannot spread the germs to others. However, they may develop TB disease in the future. They are often prescribed treatment to prevent them from developing TB disease.

People with TB disease are sick from TB germs that are active, meaning that they are multiplying and destroying tissue in their body. They usually have symptoms of TB disease. People with

TB disease of the lungs or throat are capable of spreading germs to others. They are prescribed drugs that can treat TB disease.

What Should I Do If I Have Spent Time with Someone with Latent TB Infection?

A person with latent TB infection cannot spread germs to other people. You do not need to be tested if you have spent time with someone with latent TB infection. However, if you have spent time with someone with TB disease or someone with symptoms of TB, you should be tested.

What Should I Do if I Have Been Exposed to Someone with TB Disease?

People with TB disease are most likely to spread the germs to people they spend time with every day, such as family members or coworkers. If you have been

around someone who has TB disease, you should go to your doctor or your local health department for tests.

How Do You Get Tested for TB?

There are two tests that can be used to help detect TB infection: a skin test or a special TB blood test. The Mantoux tuberculin skin test is performed by injecting a small amount of fluid (called tuberculin) into the skin in the lower part of the arm. A person given the tuberculin skin test must return within 48 to 72 hours to have a trained health care worker look for a reaction on the arm. The special TB blood test measures how the patient's immune system reacts to the germs that cause TB.

What Does a Positive Test for TB Infection Mean?

A positive test for TB infection only tells that a person has been infected with TB germs. It does not tell whether or not the per-



son has progressed to TB disease. Other tests, such as a chest x-ray and a sample of sputum, are needed to see whether the person has TB disease.

What is Bacille Calmette-Guérin (BCG)?

BCG is a vaccine for TB disease. BCG is used in many countries, but it is not generally recommended in the United States. BCG vaccination does not completely prevent people from getting TB. It may also cause a false positive tuberculin skin test. However, persons who have been vaccinated with BCG can be given a tuberculin skin test or special TB blood test.

Why is Latent TB Infection Treated?

If you have latent TB infection but not TB disease, your doctor may want you to take a drug to kill the TB germs and prevent you from developing TB disease. The decision about taking treatment for latent infection will be based on your chances of developing TB disease. Some people are more likely than others to develop TB disease once they have TB infection. This includes people with HIV infection, people who were recently exposed to someone with TB disease, and people with certain medical conditions.

How is TB Disease Treated?

TB disease can be treated by taking several drugs for six to 12 months. It is very important that people who have TB disease finish the medicine and take the drugs exactly as prescribed. If they stop taking the drugs too soon, they can become sick again; if they do not take the drugs correctly, the germs that are still alive may become resistant to those drugs. TB that is resistant to drugs is harder and more expensive to treat. In some situations, staff of the local health department meet regularly with patients who have TB to watch them take their medications. This is called directly observed therapy (DOT). DOT helps the patient complete treatment in the least amount of time.

Additional Information

CDC. Questions and Answers About TB

<http://www.cdc.gov/tb/faqs/default.htm>

The Lung Association. Tuberculosis.

http://www.lung.ca/diseases-maladies/tuberculosis-tuberculose_e.php

Haldimand Norfolk Health Unit.

<http://www.hnhu.org>



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Updated May 2010



Influenza

What is it?

Flu is the short term for influenza. It is a highly contagious respiratory disease caused by a virus. The flu virus attacks suddenly, causing fever, headache, tiredness, muscle aches and pain, runny nose, sneezing or congestion, swollen or tender glands in the throat, sore throat and a dry cough. Sometimes nausea, vomiting, or diarrhea may also occur.

Complications of influenza include pneumonia, bronchitis and tracheobronchitis. For certain persons these complications can be very serious.

How is it spread?

It is spread through the air from the sneeze or cough of an infected person or from direct contact with discharges from the nose or throat of infected persons.

What is the incubation period?

It takes about one to three days from the time a person comes in contact with the infected secretions until they develop symptoms.

What about infectiousness?

The first three days of illness are the most contagious time because there is more virus in nose and throat secretions. Young children are infectious for about seven days because they have more secretions and take longer to make antibodies.

Certain people are at risk for serious complications from an influenza infection.

They are:

- Persons with chronic heart or lung conditions.
- Persons with chronic conditions such as diabetes and other metabolic diseases, cancer, immunodeficiency (including HIV infection), immunosuppression (including transplant recipients), renal disease, anaemia, and blood disorders.
- Children (age six months to 18 years) treated for long periods with acetylsalicylic acid.
- Persons who reside in nursing homes or other chronic care facilities.
- Persons older than 65 years of age.
- Healthy children aged six to 23 months.

- People at high risk of influenza complications embarking on travel destinations where influenza is likely to be circulating.

Certain persons are capable of transmitting influenza to those at high risk for complications.



They are:

- Health care providers who work in facilities and community settings (physicians, nurses and emergency response workers).
- Health care personnel and other persons who work or visit in hospitals or long-term facilities.
- Those who provide home care to persons in high-risk groups.
- Those who provide services within closely or relatively closed settings to persons at high risk (e.g., crew on a cruise ship).
- Those providing regular child care to children aged zero to 23 months, whether in or out of the home.
- Household contacts (adults and children) of people at high risk of influenza complications. This includes household contacts of children under six months who are at high risk but for whom there is no vaccine and of children aged six to 23 months, whether or not they have been immunized. Pregnant women, who will deliver during influenza season, should be immunized during their third trimester because they will become household contacts of their newborn babies.

- Persons who provide essential community services.
- Persons directly involved in the culling operation of avian infected poultry.

How can I protect myself and others?

- Get influenza vaccine annually. Each year the strains of influenza virus are different and the vaccine changes in an attempt to match the circulating virus.
- Practice good hand washing.
- Do not visit susceptible persons or facilities if you are experiencing any symptoms that could be symptoms of influenza.

For more information, please contact a member of Haldimand-Norfolk Health Unit's Infectious Disease Team.

Updated July 2011.



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Bacterial Meningitis

What is it?

Bacterial meningitis is an infection in the fluid of the spinal cord, and in the lining around the brain. It is more common in with winter and spring. Infants are a highest risk for this illness, followed by teenagers.

What are the symptoms?

Bacterial meningitis can cause a high fever, headaches and a stiff neck. A person might also have nausea, vomiting, confusion, irritability and sleepiness. A person with meningitis may have difficulty looking into bright lights. A rash consisting of red spots that do not disappear when pressed on may also be visible. These symptoms can develop over several hours up to 2 days. It leads to death in 8-15% of people with the illness. Hearing loss, brain damage and loss of limbs occurs in 10-20% of those who survive.

How soon do symptoms appear?

Symptoms of bacterial meningitis can appear 2-10 days after exposure to the bacteria. The most common time frame is 3-4 days.

How is it spread?

Not all types of bacterial meningitis are contagious. Certain types of these bacteria can spread from person to person by direct contact with the person's saliva by sharing drinks, eating utensils, cigarettes and through kissing. It is not as contagious as the common cold or the flu.

How long is it contagious?

For the types of bacterial meningitis that are contagious, the person is contagious until 24 hours after the appropriate antibiotic therapy.

How is it diagnosed?

The diagnosis is usually made by a blood test or by taking a sample of spinal fluid. Treatment varies depending on the type of bacteria identified.

What bacteria cause Bacterial Meningitis?

It is important to know which type of bacteria is causing the meningitis because antibiotics can prevent some types from spreading and infecting other people. Bacterial meningitis is most common in young children but does occur in adults. Any bacteria can cause meningitis, but the three most common causes of illness are;

- Haemophilus influenzae type b (Hib) – leading cause of meningitis before the 1990's
- Streptococcus pneumonia (pneumococcal meningitis)
- Neisseria meningitidis (meningococcal meningitis)

What is the treatment?

Bacterial meningitis can be treated with a number of antibiotics based on the type of bacteria found. Treatment should be started early in the illness to improve the outcome.



What is Public Health's role when someone has bacterial meningitis in the community?

Public Health is notified when someone has been diagnosed with bacterial meningitis. Close contacts will be identified and contacted by a public health nurse to identify the type of meningitis and if it is contagious. Close contacts would include people in the same household, daycare center and those who had direct contact with that person's saliva (for example a romantic partner). The public health nurse will provide close contacts with specific recommendations.

Classmates (unless close friends) and co-workers who have had casual contact with the infected person do not require antibiotics.

This information is intended to provide general health-related information about bacterial meningitis. It is not intended to replace medical consultation by your physician and/or other health care professionals.

Who should receive preventative treatment?

When a case of meningitis is reported to Public Health, public health nurses must wait for the type of meningitis to be identified in order to determine if it is contagious. Close contacts who may have been exposed to the disease will be contacted and given specific recommendations and advice about antibiotics to prevent them from contracting the disease. Close contacts are people in the same household or day-care centre, or anyone with direct contact with the person's saliva or oral secretions (such as a boyfriend or girlfriend) would be considered a risk of becoming infected. People (such as classmates or co-workers) who have had casual contact with an infected person do not need antibiotics to prevent meningitis.

Vaccination to prevent meningitis may also be recommended for those exposed to *Neisseria meningitidis*.

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Viral Meningitis

What is it?

Viral meningitis is a disease that causes the tissues that cover the brain and spinal cord to be inflamed. It is caused by an infection with one of several types of viruses.

Is it a serious disease?

- Yes, viral meningitis is a serious disease, but it is rarely fatal.
- Most people recover fully, with symptoms lasting seven to 10 days.
- Many different viruses can cause viral meningitis.
- About 90% of cases are caused by a group of viruses known as enterovirus, such as coxsackievirus and echovirus.

How does it spread?

- Enteroviruses, the most common cause of viral meningitis, are often spread through direct contact with saliva, sputum or nasal mucus of an infected person.
- The spread usually happens by shaking hands with an infected person or touching something he or she has touched, and then rubbing one's own nose, mouth or eyes.
- The virus can also be in the stool of an infected person. The virus spreads through this route mainly among small children who are not yet toilet trained.
- Adults can also spread the virus by changing an infected baby's diaper.
- It usually takes between three to seven

What are the symptoms?

Symptoms may not be the same for every person.

The more common symptoms include:

- Fever.
- Severe headache.
- Stiff neck.
- Bright lights hurting the eyes.
- Drowsiness or confusion.
- Nausea and vomiting.

For babies the more common symptoms are:

- Fever.
- Fretfulness or irritability.
- May be hard to wake the baby.
- Baby may refuse to eat.

days from the time someone is infected until symptoms develop.

- People can usually spread the virus to someone else beginning about three days after they are infected until about 10 days after they develop symptoms.

thoroughly and often before and after handling food, after using the washroom, and after sneezing or wiping your nose.

- Wash objects and surfaces with a diluted bleach solution (mix one capful of chlorine-containing household bleach with one gallon of water).

How is it treated?

- There is no specific treatment for viral meningitis.
- Most patients recover fully on their own.
- Doctors will often recommend bed rest, plenty of fluids and medicine to relieve fever and headache.

How can you reduce the chances of being infected?

- The most effective way of preventing the spread of the virus is to wash your hands

What is the difference between viral meningitis and bacterial meningitis?

- Viral meningitis is caused by a viral infection (virus) and is rarely fatal.
- Bacterial meningitis is caused by bacteria and can be very serious and result in disability or death if not treated promptly.
- The symptoms for viral and bacterial meningitis are often the same.
- If you think you or your child has meningitis, see your doctor right away.



Meningococcal Meningitis

What is it?

Meningitis and meningococemia are two rare but serious infections caused by bacteria called *neisseria meningitidis*. The bacteria enter the body through the nose and throat and may cause an infection of the bloodstream (meningococemia) and/or an infection of the covering of the brain and spinal cord (meningitis). Rapid medical assessment and treatment are necessary and even with improved antibiotics and intensive care units, 8% to 15% of infected persons will die. Ten to 20% of survivors will suffer long-term health effects (hearing loss, loss of limb, decreased mental function).

What does it look like?

Symptoms can include sudden high fever, nausea and vomiting, severe headache, stiff neck, eyes sensitive to light and a skin rash of tiny, bright, red spots.

Symptoms occur within two to 10 days (usually three to four days) after the person has been exposed. Symptoms begin suddenly and progress rapidly to severe illness.

How is it spread?

Some people may carry these bacteria in their nose and throat without becoming ill. They are healthy carriers. The bacteria, found in saliva and mucus, can be spread from person to person by direct contact (kissing, sharing eating utensils, drink containers, lipstick, cigarettes or musical instruments with mouth-pieces). Why some people are healthy carriers of the bacteria and others get very sick is unknown.

Who should receive preventive antibiotics?

When a case of meningococcal disease is reported to the Medical Officer of Health, Health Unit staff will quickly identify and contact persons who may have been exposed to the disease and provide specific recommendations to them. Preventive antibiotics are usually recommended for household and close, intimate contacts of an infected person. Classmates, co-workers or other persons who have had only casual contact with an infected person, usually do not need preventive antibiotics.

Recommended absence

An infected person is no longer contagious after 24 hours of antibiotic therapy.

This disease must be reported to the Medical Officer of Health as required by Health Protection and Promotion Act.

For more information, please contact a member of Haldimand-Norfolk Health Unit's Communicable Disease Team.

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Group A Streptococcus

What is it?

Group A Streptococcus (GAS) is a bacteria that is naturally found in many people's throats and rarely cause serious invasive disease. Group A Streptococcus can cause a variety of common diseases such as sore throats ("strep throat"), tonsillitis, scarlet fever, and skin infections such as impetigo. Occasionally, the bacteria cause more serious infections such as necrotizing fasciitis ("flesh-eating disease"), inflammation of muscle tissue and streptococcal toxic shock syndrome (STSS). These more serious infections are referred to as "invasive GAS".



How is it spread?

Approximately 10 - 15 % of people carry GAS in their throat without any symptoms. These people are called "carriers". The bacteria may be spread when the nose or throat secretions of either a "carrier" or an ill person come in contact with the nose or mouth of another person. This occurs during activities such as: kissing or sharing of food, cutlery, drinks, water bottles, lipstick, toothbrushes, musical instrument mouthpieces, mouth guards, or cigarettes. This type of sharing should be avoided at all times. The bacteria may also be spread when a person comes into direct contact with infected lesions on the skin, such as impetigo. The bacteria do not spread through the air. Infected persons are generally not contagious after 24 hours of treatment with the appropriate antibiotics.

What are the symptoms?

The early symptoms of toxic shock syndrome include fever, tiredness and a general feeling of unwellness. Early symptoms of necrotizing fasciitis may include fever, and abnormal pain, swelling and redness at the infected area.

Who is considered a close contact?

Close contacts of a person with invasive streptococcal disease are those who are likely to have been exposed to the nose or throat secretions of the sick person. This exposure can result in the spread of disease only if it occurred 7 days or less before the individual became ill and up to 1 day after treatment begins in the ill person. Close contacts include the following:

- those living in the same household as the ill person;
- those who share sleeping arrangements with the ill person; those who have kissed the ill person or shared items with the ill person such as: food, cigarettes, drinks, cutlery, water bottles, lipstick, cigarettes, mouth guards, toothbrushes, or musical instrument mouthpieces;
- those who have performed mouth-to-mouth resuscitation on the ill person
- those with direct skin to skin contact with secretions from infected sores on the ill person
- **Classroom, daycare, workplace and social contacts generally are not considered close contacts**

Can it be prevented in close contacts?

Yes, invasive GAS may be prevented by giving antibiotics to close contacts of a person who is sick with the disease. Close contacts of a person with severe infection have rates of disease slightly higher than the general public, but the risk remains very low.

NOTE: If the case is a resident of a Long Term Care facility, refer to the most current version of the Ontario Nursing Home Association Guidelines for the Management of Residents with Group A Streptococcus Infection in Long-Term Care Facilities.

What is given to close contacts to prevent invasive GAS disease?

When a case of Invasive Group A Streptococcus is reported, Public Health will investigate and obtain names of close contacts who meet the criteria as defined above. It is recommended that close contacts be treated with an antibiotic for 10 days to prevent disease. Haldimand Norfolk Health Unit staff will contact your family physician to review the recommended antibiotic. Close contacts should be watched for the symptoms of invasive GAS disease and seek medical attention immediately if these symptoms develop.

This information is intended to provide general health-related information about Group A Streptococcus. It is not intended to replace medical consultation by your physician and/or other health care professionals.

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Blood and Body Exposure

for Emergency Service Worker/Justice Service Worker

Emergency Response Protocol

Blood and body fluids may contain pathogens such as Hepatitis B virus (HBV), Hepatitis C virus (HCV) or Human Immunodeficiency Virus (HIV).

If you have been exposed to:

- A needlestick or cut from a used needle or sharp object contaminated with blood/body fluid.
- A splash of blood/body fluid onto broken skin (open cut, sore or rash) or,
- A splash of blood/body fluid into mouth, nose or eyes.

Care must be taken to prevent accidental puncture wounds and abrasions to the Emergency Service Worker/Justice Service Worker (ESW/JSW) and clients from needles, razors, glassware or other instruments not intended to pierce the skin. Should such an incident occur:

Follow these instructions:

1. Wear single use gloves prior to handling or dressing the wound.
2. Wash the exposed skin surface with water and soap. If the area is bleeding, allow it to bleed freely.
3. After cleaning the wound, apply a skin antiseptic and cover with a clean dressing or bandage.
4. If there has been a splash on to a mucous membrane (eye, nose, mouth), flush the area thoroughly with water.
5. The person exposed must immediately contact a physician for assessment of the need to receive post-exposure treatment or prophylaxis.
6. A record of the incident must be kept on site for a minimum of one year, and on file for 5 years, and include:
 - a. Name (first and last), complete mailing address and phone number of the person exposed.
 - b. Name of ESW/JSW (first and last) involved in the incident.
 - c. Date of injury and site of injury.
 - d. Circumstances surrounding the injury and action taken.

Cleaning Work Surfaces Contaminated with Blood or Any Other Body Fluid

(Surfaces such as counter tops, sinks, faucets, toilets, handles, phones, benches, chairs or floors)

1. Wear single use gloves. Clean the surface with soap and water and thoroughly rinse with clean water, as soon as possible. Care must be taken to avoid contaminating clothing and splashing of eye, nose, mouth during the cleanup.
2. Disinfect the equipment or area using the appropriate level of disinfection, ensuring adequate contact time. See page 47 of Best Practices document or the Infection Control Practices Fact Sheet (listing various disinfectants and recommended contact times)
3. Cloths used for wiping up of blood or body fluids and single use gloves should be disposed of by placing them in a sealed plastic bag and then in the regular garbage.
4. Ensure to wash your hands.

Immunization to protect against Hepatitis B is strongly recommended for all Emergency Service Workers/Justice Service Workers. This vaccine is available at a cost from family doctors.

Contact your local public Health Unit for more information.
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