

**Infection Control Guidance for Respirators (Masks) worn by Health Care Workers -
Frequently Asked Questions
SEVERE ACUTE RESPIRATORY SYNDROME (SARS)**

The following fact sheet has been developed to assist health care workers (HCWs) prevent the transmission of SARS. Please be advised that as more information about the cause of this illness becomes available, the information provided below may change.

1. How is SARS transmitted from one person to another?

A newly identified coronavirus is currently believed to be the cause of SARS. It is not yet certain whether other organisms may also play a role in the illness. Current information indicates that most transmission is via respiratory droplets coming from a person who is symptomatic with SARS. The virus is also present in stool. The virus may be transmitted to people who have close contact with the SARS patient by:

- ▶ Breathing in the respiratory droplets that have the virus in them, or having droplets splashed onto the eyes, nose or mouth.
- ▶ Contamination of the hands with respiratory droplets or stool, from touching the patient or from touching equipment or other objects in the patient's environment which may have been contaminated with respiratory secretions or stool, then touching the eyes, nose or mouth with the contaminated hands.

It has not been ruled out whether the virus is spread by airborne particles.

2. Which respirator (mask) should I use to protect myself when caring for a patient meeting the definition of a suspect case of SARS?

Health Canada recommends that Health Care Workers (HCWs) wear an N95 approved respirator/mask or equivalent when in contact with a patient where SARS is of concern. This may include a person under investigation, a suspect case, or a probable case. For SARS case definitions, visit www.sars.gc.ca. A surgical mask does not provide adequate respiratory protection to the HCW if the infection is airborne. If an N95 respirator/mask or equivalent is not immediately available, a surgical mask should be worn as it may provide some protection against airborne particles.

Eye protection (e.g. goggles or face shields) is also recommended when providing direct patient care during cough producing and aerosol-generating procedures, and when there is a potential for spattering or spraying of body substances. For infection control guidelines, visit www.sars.gc.ca.

3. What is an N95 respirator/mask?

NIOSH certified N95 respirators/masks are designed to help provide respiratory protection for the wearer. The N95 respirator/mask has a filter efficiency level of 95% or greater against particulate aerosols free of oil when tested against a 0.3 micron particle. It is fluid resistant, disposable and may be worn in surgery.

The “N” means “Not resistant to oil”. The “95” refers to a 95% filter efficiency.

N95 respirator/mask with an exhalation valve may be used by the Health Care Worker. Patients, suspect or probable cases of SARS should not wear an N95 mask with exhalation valve, as this valve could disseminate the virus into the environment.

4. Health Canada recommends wearing an N95 mask or equivalent. What does “equivalent” mean?

It should be noted that NIOSH is an American agency, and there is no equivalent agency in Canada which certifies masks for industrial use. N95 masks have been tested and certified by NIOSH. For more information on NIOSH, testing and certification, visit <http://www.cdc.gov/niosh/homepage.html>

Health Canada recognizes that many institutions and other health settings may not use N95 masks that are NIOSH approved, and considers masks fulfilling the following requirements as the “equivalent” to NIOSH certified N95 masks:

- ▶ Filter particles one micron in size or smaller
- ▶ Have a 95% filter efficiency
- ▶ Provide a tight facial seal (less than 10% leak).

5. Are N95 masks considered an “equivalent” to the TB masks?

Yes, NIOSH approved N95 respirators/masks or equivalent meet and exceed the TB mask criteria. For more information on TB masks, visit www.hc-sc.gc.ca/pphb-dgspsp/publicat/ccdr-rmtc/96vol22/22s1/index

If your health care facility masks meet the filter and fit criteria of #4 (above), they can be considered equivalent to TB masks.

6. How do I put on a N95 respirator/mask?

An occlusive fit and a clean shave for men provide the best protection for the health care worker. Masks should be fit tested according to the manufacturer's recommendations. In addition, masks should be fit checked each time the mask is put on. To check test the mask the wearer takes a quick, forceful inspiration to determine if the mask seals tightly to the face.

For instructions on how to best use the N95 mask or equivalent, refer to the handout provided by the manufacturer, or follow your provincial regulations.

7. How long can I wear my mask for protection from SARS?

There are no published data on the length of time the mask is effective for the wearer. Health Canada recommends masks should be changed if they become wet, interfere with breathing, are damaged or visibly soiled.

A respirator (mask) which has been exposed to a probable SARS case is considered contaminated and should be discarded.

Respirators/masks are disposable but can be re-used repeatedly by the same HCW (unless the HCW was in contact with a suspect or probable SARS case) if the respirators/masks are stored in a clean, dry location. Humidity, dirt, and crushing reduce the efficiency of the respirator.

8. How do I remove my mask?

When discarding the mask: Wash your hands prior to handling the mask. Carefully remove your mask using the straps. Discard. Wash your hands after handling the mask.

If re-using the mask: Place in clean, dry location such as a paper bag. Do not mark the mask with a pen or marker. Write your name on the outside of the paper bag to identify the mask as your own. Wash your hands after handling the mask.

9. Do people who are under investigation, suspect or probable cases of SARS need to wear a mask? What kind of mask is recommended?

Yes, people who are under investigation or have been diagnosed as a suspect or probable case should wear a surgical mask when out of their negative pressure room. A surgical mask will capture large, wet particles from the nose and mouth of the wearer, thus preventing the spread from the wearer to others.