

## How can health care workers protect themselves?

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**ew information** is coming out daily about how SARS can be transmitted and the type of precautions required to prevent infection. HSA encourages concerned members to check the web sites listed below for periodic updates. This article is based on what was known as of the date *The Report* went to press.

Ordinary glasses are not adequate eye protection. Fitted goggles, or a face shield should be used where warranted. Frequent and thorough hand washing is recommended for all workers with any possible exposure to the SARS virus. Surgical masks are designed to prevent the wearer from contaminating others. At this time, the WCB does not accept that a worker wearing a surgical mask provides adequate protection from SARS infection.

Where a mask/respirator is required for adequate protection, it must be:

- at least an N95 grade (a surgical mask is not adequate)
- NIOSH approved
- properly fit-tested to ensure a proper seal (note: men should be clean-shaven for the best possible fit).

These are the current mask/respirator requirements under the OH&S Regulation, as interpreted by BCs Workers Compensation Board.

Where personal protective equipment is required for adequate protection, workers must be adequately trained in the proper way to wear it, as well as the proper way to put it on and take it off to avoid contamination.

• N95 mask/respirator should not be left hanging around the neck when not in use

• N95 mask/respirator must be changed if it may be contaminated, or if it becomes wet, soggy, or deformed.

For further information:

• BC Workers Compensation Board:

[www.worksafefbc.com](http://www.worksafefbc.com)

• Occupational Health and Safety Agency for Healthcare in BC:

[www.ohsah.bc.ca](http://www.ohsah.bc.ca)

• BC Centre for Disease Control:

[www.bccdc.org](http://www.bccdc.org)

• Health Canada: [www.sars.gc.ca](http://www.sars.gc.ca)

• US Centers for Disease Control and Prevention: [www.cdc.gov/ncidod/sars](http://www.cdc.gov/ncidod/sars)

• World Health Organization: [www.who.int/csr/sars/en](http://www.who.int/csr/sars/en)

SARS is believed to be caused by a new type of coronavirus. Because there is currently no definitive diagnostic test for the illness, patients are classified as suspected or probable SARS cases based on their symptoms and the likelihood that they've had close contact with other suspected or probable SARS cases. The virus appears to be spread primarily via airborne droplets, produced by SARS patients when they forcefully expel air from their lungs. This may happen from "natural" causes (for example by coughing, sneezing or shouting), or during certain cough-inducing/aerosol-generating medical procedures (such as endotracheal intubation and suction, aerosol treatments or bronchoscopy).

It is believed workers can become infected through the nose, mouth and possibly the eyes, and that infection can occur in various ways, including when:

- a SARS patient forcibly expels virus-containing droplets directly into a worker's nose, mouth or eyes;
- a worker inhales infected airborne droplets;
- infected airborne droplets come into contact with a worker's eyes; or
- a worker transfers virus particles from infected material or surfaces, via the worker's hands, to his/her nose, mouth or eyes.

As with any workplace hazard, different workers are at different levels of risk for contracting SARS based on the extent of their contact with SARS patients. The risk level will also vary depending on what stage of the illness the SARS patient is at. For example, an acutely ill patient who is regularly coughing or sneezing creates a greater risk than a patient who has nearly recovered and has no cough.

The majority of HSA members to date have had no exposure to SARS at work because there have been no suspected or probable SARS cases in their facilities. Where warranted, such facilities should have a biohazard exposure control plan in place to protect workers, and this plan should include preparation for the eventuality of SARS patients being admitted in the future.

Even at facilities where SARS patients are admitted (as has happened, for example, at Royal Columbian Hospital in New Westminster, Vancouver General Hospital and Surrey Memorial Hospital), the majority of HSA members will not have the sort of direct contact with SARS patients which has been implicated in contracting SARS. HSA members who have no contact with such patients, or with areas or materials exposed to these patients, are at minimal risk of contracting SARS, and probably require no special precautions other than frequent and thorough hand washing.

As far as possible, SARS patients should remain in isolation. If a SARS patient must be transported to other areas in the hospital for tests or treatment, then the patient should be required to wear a surgical mask to minimize any chance of contaminating areas they pass through, or infecting people in the area. Members who have only casual contact with areas that a masked SARS patient passes through have a very low risk of contracting SARS, and are probably adequately protected by frequent and thorough hand washing.

Lab technologists who perform diagnostic tests on samples from SARS patients should treat samples as infectious and use the same sort of precautions generally used with samples that could contain organisms which can be transmitted by aerosols.

Medical imaging technologists who perform tests on SARS patients (e.g. CT scans) should ensure the patient is wearing a surgical mask. These technologists should also wear appropriate personal protective equipment.

Respiratory therapists performing aerosol-generating procedures on SARS patients, or working closely with SARS patients who are "naturally" producing aerosols, are in one of the highest risk categories for contracting SARS. These members should wear gloves, mask/respirator, goggles or face shield, gown, hat and booties.

The issue of protecting health care workers from SARS in the workplace is being considered by a provincial committee of infection control experts working with the WCB Prevention Division, as well as the health care unions and employers through the Occupational Health and Safety Agency for Health Care. This working group is assessing the level of infection risk for different health care workers performing different kinds of tasks in connection with SARS patients. The working group hopes to issue joint recommendations about the level of precautions required in various situations.

In the meantime, health care workers should assess their level of risk and demand adequate protective procedures and equipment. Where the WCB requirements are more stringent than your local infection control groups recommendations, workers are legally entitled to the level of protection required by the WCB. Under sections 3.12 & 3.13 of the OH&S Regulation, a worker has the right to refuse work which the worker has - reasonable cause to believe" would create an -undue hazard" to her/his health. 

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