



## FIRE CHIEFS' ASSOCIATION OF BC

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Dear Doctor,

The purpose of this letter is to provide information on *cancer screening and surveillance* for firefighters and emergency responders that may wish to establish a health maintenance program under your care. WorkSafeBC has recognized the growing body of scientific literature linking firefighting to a variety of job-related cancers and has passed the *Cancer Presumption Relief Act* of 2005. This legislation currently provides for ten different cancers as being connected with the occupation of firefighting: leukemia, lymphoma, brain, lung, esophageal, colorectal, kidney, bladder, ureter, and testicular cancer. However, numerous reports indicate that these are not the only line-of-duty cancers that firefighters are at risk for<sup>1</sup>. Despite the correct use of personal protective gear, firefighters sustain intense and repeated exposures to highly variable mixtures of concentrated carcinogens. After inhalation, absorption through the skin, or inadvertent ingestion, these substances are widely distributed throughout the body. As a consequence, the tumours associated with firefighting are not limited to any specific organ system. Moreover, studies have indicated that the relative risk for these cancers can vary anywhere from 1.3 for prostate cancer, through 5.2 for cancer of the cervix in female firefighters<sup>2</sup>, to as high as 36 times the risk for kidney cancer in firefighters with 40 or more years of service<sup>3</sup>. New statistics generated from the World Trade Center disaster show that these cancers are often of an aggressive variety and present at an age earlier than expected<sup>4</sup>.

For persons at standard risk for cancer, it is generally recommended that screening strategies such as colonoscopy and mammography begin at age fifty. However, because of the carcinogenicity associated with firefighting, some experts have recommended that firefighters assume cancer screening programs in the same manner as someone with a first degree relative with the disease. Firefighters have been encouraged to begin cancer screening programs at age forty, or ten years before an affected first degree relative. An initial screening program might involve a comprehensive physical examination, laboratory tests including complete blood count, serum chemistries, urinalysis and a bowel investigation such as endoscopy, CT colonography or fecal blood analysis. The screening of female firefighters could additionally include mammography, bimanual examination and Pap test. Certainly any symptoms in a firefighter such as cough, unexplained weight loss, irritative voiding symptoms or blood in the stools should be taken seriously and followed through to either resolution or definitive diagnosis.

I hope that this information will be helpful in guiding your decisions regarding requests by firefighters to establish cancer screening and surveillance programs. Firefighters as a group are highly motivated individuals and it is a pleasure to assist them in strategies that will decrease the burden of cancer in our society.

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Date

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1 *J Occup Environ Med* 2006; **48**: 1189-202,  
2 *J Occup Environ Med* 2006; **48**: 883-8  
3 *Arch Environ Occup Health* 2006; **61**: 223-31  
4 *Lancet* 2011; **378**: 898-905