MEMORANDUM

To: UBC Faculty, Staff and Students
    UBC Building Safety Committees

From: Guy Champagne, Health & Safety Associate Facilities, Safety & Risk Services

Date: March 30, 2023

Subject: Asbestos Health Concerns

Asbestos Health Concerns

UBC has put measures in place to ensure that possible asbestos-related health risk on campus is eliminated or as low as reasonably achievable. Still, it is important to note the different health issues related to asbestos exposure and how you can recognize their symptoms. Please contact guy.champagne@ubc.ca with any concerns about asbestos at UBC.

*It should be noted that exposure to asbestos can occur in your residence (built prior to 1995) when do it yourself home renovations takes place or a contractor is not using safe asbestos removal procedures when asbestos is present while doing work in your residence.*

UBC Asbestos Management Program highly recommends that you should hire a qualified Asbestos Consultant to conduct a survey prior to renovation if your residence was built prior to 1995.

Inhalation Exposure

Many factors will determine the probability and severity of health effects. Some of these factors include:

- The dose (how much)
- The duration (how long),
- Durability of the fibres inhaled.
- The route or the pathway by which you are exposed.

In general, the primary asbestos-related diseases affecting workers exposed to airborne asbestos fibres are asbestosis and cancers.
**Asbestosis**

During the development of asbestosis, asbestos fibres deposited in the terminal bronchioles and alveoli are not cleared as rapidly as in the ciliated portion of the airways. The fibres can stimulate scar tissue to form (fibrosis) in the lungs.

The lungs become progressively more rigid as the proportion of scar tissue increases, making it difficult to breathe.

The fibrosis, once started, will continue even if exposure to airborne asbestos stops (because asbestos fibres, particularly amphiboles, are very resistant to breakdown in the lung). A latency period of ten to thirty years may pass before the symptoms of asbestosis become apparent.

**Symptoms:**
- Increase in breathlessness
- Sharp pains in the chest
- Increased sputum and coughing

**Cancers**

The chances that asbestos exposure will lead to lung cancer depend not only on the cumulative dose of asbestos, but also on the underlying risk of lung cancer due to other factors (i.e. smoking). As with most carcinogenic agents, there is a substantial latency period (10-30 years) between the onset of exposure to asbestos and the occurrence of lung cancer.

**Mesothelioma**

Mesotheliomas are tumors of the thin membranes that line the body cavity and surround internal organs. Mesotheliomas are relatively rare in the general population.

The risk of mesothelioma from a given level of exposure to asbestos depends primarily upon the time elapsed since exposure (latency), with risk increasing exponentially with time after a lag period of about 10 years.

**Ingestion Exposure** An overview of the oral health effects shows that ingestion of asbestos causes little or no risk of non-carcinogenic injury. However, there is some evidence that chronic oral exposure may lead to an increased incidence risk of gastrointestinal tumors.