



## NEWS RELEASE

**For immediate release:  
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### **Wood smoke increases heart attack risk in BC seniors**

**Courtenay** – A new health study of three communities in British Columbia found that rising concentrations of fine particulate air pollution caused by wood burning can significantly increase the risk of heart attacks in people 65 and older.

During the cold season, when pollution from woodstoves is at its highest, the risk of heart attacks among subjects of 65 years and older increased by 19%.

The Health Canada funded study looked at air quality measurements and data from hospital admissions in Courtenay/Comox, Prince George and Kamloops. In the winter heating months, Courtenay/Comox had the highest level of fine particulates and the highest percentage of wood smoke in those particulates.

“This study reinforces what we already know about wood smoke. It puts people’s health—and lives—at risk,” said Jennell Ellis, a spokesperson for Breathe Clean Air Comox Valley, a local citizen’s group. “Our local and provincial representatives need to stop debating the issue and start acting to get rid of harmful wood smoke. They are neglecting their duty to protect the health and lives of their citizens.”

In addition to using data from fixed-site air quality monitors, the researchers set up eight temporary monitors in each study area.

“Seniors throughout our community face an increased risk of heart attack when there is wood smoke in their area. And every fireplace and wood stove contributes to that increased risk,” said Ellis. “Moving to cleaner heating options can literally help save lives.”

This winter, Courtenay has been over BC’s 24-hour Air Quality Objective for fine particulates on 19 days and four air quality advisories have been issued for the Comox Valley. Last winter Courtenay exceeded the same objective on 21 days and had more days under an air quality advisory.

“Our area is one of the smokiest areas in the province in the winter,” added Ellis. “But all communities with wood smoke should be concerned about the results of this study. There can be an increased risk of heart attacks even if an area doesn’t exceed air quality standards or experience air advisories.”

The study, *Biomass Burning as a Source of Ambient Fine Particulate Air Pollution and Acute Myocardial Infarction*, was released online earlier this month by the journal *Epidemiology*.

[http://journals.lww.com/epidem/Abstract/publishahead/Biomass\\_Burning\\_as\\_a\\_Source\\_of\\_Ambient\\_Fine.98888.aspx](http://journals.lww.com/epidem/Abstract/publishahead/Biomass_Burning_as_a_Source_of_Ambient_Fine.98888.aspx)

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***Also see attached background information.***

## Additional Background information

### McGill University news release on the study:

<https://www.mcgill.ca/newsroom/channels/news/woodstoves-are-good-soul-bad-heart-266643>

### Contact information for the study's lead author

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*Note: Dr. Weichenthal is not associated in any way with Breathe Clean Air Comox Valley*

### Information on Wood Smoke

- For an overview of health impacts of wood smoke and fine particulates, please visit: <http://breathecleanair.ca/health/>. More detailed and extensive health related information can be found on the Doctors and Scientists Against Wood Smoke Pollution website: <https://woodsmokepollution.org/index.html>
- BC's Healthlink states that "particulate matter is considered the air pollutant of greatest concern to human health in B.C." <https://www.healthlinkbc.ca/healthlinkbc-files/outdoor-air-pollution>. BC Environment notes "Research has shown that there is no threshold below which smoke has no health effects." <http://www.bcairquality.ca/topics/smoke-burning.html>
- In addition to fine particulates, wood smoke contains many of the same toxic chemicals as cigarettes. The Canadian Lung Association notes that wood smoke contains volatile organic compounds such as furans, dioxins, benzene, and polycyclic aromatic hydrocarbons that are carcinogenic. It also contains harmful formaldehyde and nitrogen oxides. <https://www.lung.ca/news/expert-opinions/pollution/residential-wood-burning>
- Fine particulates from wood smoke remain in the air for days. The particles are invisible and don't have an odour. So the potential for harm is present even when the visible wood smoke is gone.

### Information on Courtenay/Comox air quality

- A 2011-2013 BC government study of 13 communities in the Georgia Strait showed the monitor in Courtenay had the worst air quality in terms of fine particulates. Courtenay was the only community to fail to meet the federal annual standard for fine particulate levels and only one of two communities to fail to meet the daily standard. [http://www.bcairquality.ca/reports/pdfs/Georgia\\_Strait\\_Air\\_Zone\\_Report\\_2011-2013.pdf](http://www.bcairquality.ca/reports/pdfs/Georgia_Strait_Air_Zone_Report_2011-2013.pdf)
- Annual *State of the Air* reports by the BC Lung Association also show that, of 40 communities measured in the province, Courtenay is one of the worst for fine particulate pollution. <https://bc.lung.ca/protect-your-lungs/air-quality-lung-health/bc-state-air-report>
- Additional materials can be found at <http://breathecleanair.ca/resources/>. There was also a mobile monitoring study done in the area that highlights that older residential areas in Courtenay, Comox and Cumberland have the worst PM2.5 levels. See maps here: <http://breathecleanair.ca/problem/mobile-monitoring-maps/>