

Smoking on footpaths increases hazardous air pollutants

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(Medical Xpress) -- A study by the University of Otago, Wellington has found that smoking on city street footpaths increases the amount of dangerous fine particulates in city air.

The five week long study by public health researchers used a sensitive air monitor to measure [air quality](#) in the Lower Hutt shopping centre as they passed 284 people who were [smoking](#) on the footpaths.

They found that when [smokers](#) were observed, at an average distance of 2.6 metres, there was an average 70% more fine [particulates](#) in the air (PM2.5 or less than 2.5mm in diameter) than when there were no smokers around.

When standing next to a smoker at a bus stop, the mean fine particulate [pollution level](#) was 16 times the background level, with a peak of 26 times the background level.

One of the researchers, Dr George Thomson, pointed out that the problem of smoking on [city](#) streets is being addressed internationally with a growing number of cities successfully adopting smokefree policies for at least some outdoor parts of shopping areas. These cities include Brisbane, Adelaide, Hobart and many in California and Japan.

“Much of the impetus for these policies is to denormalise smoking further, and to decrease the example of smoking to children,” he says.

“Reducing visible smoking also makes it easier for smokers to quit and to stay quit.”

Study co-author, Associate Professor Nick Wilson says that city councils should do more to help protect the health of pedestrians, and especially those in outdoor pavement seating, by implementing smokefree policies for shopping areas. “They should be particularly concerned about protecting bar and restaurant workers who frequently have to breathe in second hand smoke when servicing outdoor tables with smokers,” he says.

Other likely benefits of smokefree streets would be decreased street cleaning costs from less cigarette butt litter, a better public image for a city, the reduction of second hand smoke drifting into shops and offices, and reducing the nuisance impact for others walking on footpaths.

The researchers found the results of this study were consistent with similar research along streets in downtown Wellington, even though there were less pedestrians and smokers in Lower Hutt.

The study has been published in the international journal *Health & Place*, and the research was funded by the Cancer Society of New Zealand, Wellington Branch.

More information: Patel V, Thomson G, Wilson N. Smoking increases air pollution levels in city streets: Observational and fine particulate data. *Health and Place* Online May 29, 2012. DOI : 10.1016/j.healthplace.2012.05.005

Provided by University of Otago

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