

# Wood smoke particulates pose health problems

By Cheryl Katz, Environmental Health News

NORDEN – On a frosty evening in the Sierra Nevada, smoke curling from the chimney of the Clair Tappaan Lodge is a welcome sight for chilly snowshoers and cross-country skiers. Gathering by the massive stone hearth at this landmark Sierra Club mountain hostel, guests relax in the warmth and aroma of the crackling log fire.

Woodsy scents waft across the region, as millions of fireplaces and wood stoves are lit by people seeking environmentally friendly sources of heat and ambience. But new research is raising concerns about the toxic substances in that smoke.

Tiny airborne specks known as particulate matter produced by wood-burning stoves appear to be especially harmful to human health. Small enough to deeply penetrate the lungs, they contain high levels of carcinogenic chemicals. They're capable of damaging DNA and activating genes much like car exhaust and tobacco smoke, according to a new study in Denmark. Another new study, conducted in Canada, found that infants and toddlers were significantly more likely to get ear infections if they lived in an area with a lot of wood stoves and fireplaces.

Because wood is a natural material and has been an integral part of human existence for so long, many view it as a benign, cheap and renewable energy alternative. But wood smoke can exacerbate asthma symptoms, and is especially harmful to children and older people. The emissions also have been linked to respiratory disease, atherosclerosis and other coronary problems, and early deaths among people with cardiovascular or

lung disease.

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