

## **Road traffic noise and air pollution exposure and incidence of cardiovascular events**

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Living near a major road has been associated with cardiovascular health effects. Health effects of major road traffic have been attributed to both air pollution and noise. However few studies have considered both stressors. We present a large study investigating the relationship of cardiovascular morbidity with both road traffic noise and air pollution exposure.

Exposure to road traffic noise and air pollution (particulate matter; PM10) was assessed with a high level of detail for subjects in a large ongoing cohort study. The cohort consisted of a large random sample (N = 18,220) of inhabitants of the Eindhoven region, a large urban area in the Netherlands. For individual exposure assessment detailed spatial data (e.g. traffic characteristics, buildings, screening objects) were used together with geographical information systems (GIS) and state-of-the-art modeling techniques in combination with air pollution monitoring data.

Prospective analyses were carried out to investigate the association between residential road traffic noise and air pollution exposures and hospital based incidence of cardiovascular diseases.

The assessment of exposure to road traffic noise and air pollution, and results and insights with respect to associations with morbidity will be presented and discussed.