

Death risks higher for heart attack survivors living near major roadways: research

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Heart attack survivors who live about 100 meters (328 feet) or less from a major U.S. roadway face increased risk of death from all causes, according to new research in the American Heart Association's journal *Circulation*.

In the Determinants of MI Onset Study of 3,547 [heart attack](#) survivors (average age 62), researchers found:

- Those living less than 100 meters (328 feet) from the roadway have a 27 percent increased risks of dying over 10 years than those living at least 1,000 meters (3,280 feet) away.
- Those living 100 to 199 meters (328 to 653 feet) from the roadway have a 19 percent increased risks of death.
- Those living 200 to 999 meters (653 feet to 3,277 feet) from the roadway have a 13 percent increased risk of death.

The roadways include major interstate and state roads throughout the United States.

"We think there is exposure to a combination of air pollution near these roadways and other exposure, such as excessive noise or stress from living close to the roadway, that may contribute to the study findings," said Murray A. Mittleman, M.D., Dr.PH, study author and director of the [Cardiovascular Research](#) Unit at Beth Israel Deaconess Medical Center in Boston, Mass.

During the 10 years of the Onset Study, 1,071 deaths occurred: 672 people (63 percent) died of cardiovascular causes. Cancer was the cause of death for 131 people (12 percent) and respiratory disease for 45 (4 percent).

Researchers examined and accounted for numerous factors in the analysis, including personal, clinical and neighborhood-level characteristics (income and education).

"People with lower levels of education and income are more likely to live in communities closer to a major roadway, so they are bearing a larger burden of the risk associated with exposure than people with more resources" said Mittleman, who is also associate professor at Harvard Medical School.

Long-term exposure to [air pollution](#) is already associated with increased risk of [cardiovascular death](#) in the general population. The findings provide new evidence that long-term exposure to roadways is associated with [increased risk](#) for death, including in patients with underlying cardiovascular disease, he said.

"From the public policy point of view, the association between risk of death and proximity of housing to major roadways should be considered when new communities are planned," Mittleman said. "From an individual point of view, people may lessen the absolute risk of living near a roadway by paying attention to the general prevention measures, including quitting smoking, eating a heart-healthy diet exercising regularly, and keeping blood pressure and cholesterol under control."

Provided by American Heart Association

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