

As Noise Rises, So May Heart Risks

By Steven Reinberg, HealthDay Reporter

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WEDNESDAY, Nov. 23 (HealthDay News) -- Loud, grating noise is not just annoying, it can increase the risk of a heart attack, researchers report.

This increase in risk appears to be caused by the physiological effects of environmental and work noise, the German research team found.

"Workplace protection for noisy workplaces should be reconsidered," said lead researcher Dr. Stefan Willich, director of the Institute for Social Medicine, Epidemiology and Health Economics at Charite University Medical Center, Berlin.

"Currently, in many countries the threshold for ear protection is 85 decibels," Willich said. "According to our results it should be lowered to somewhere between 75 and 80 decibels," he said.

Reporting in the Nov. 24 online edition of the *European Heart Journal*, Willich's team compared data on 2,000 heart attack patients with data on more than 2,000 patients admitted to trauma and general surgery departments for reasons other than heart attack.

They found that exposure to environmental noise, such as that of traffic, tripled the risk of heart attack for women and boosted it by nearly 50 percent for men.

"Reducing traffic noise makes sense from a medical point of view," Willich said.

On the other hand, his team found that workplace noise increased heart risks for men by nearly a third but did not seem to affect women.

The researchers noted that risk did not continue to increase with rising noise levels. Instead, harmful health effects seemed to peak at a threshold of 60 decibels, after which the risk remained constant. Sixty decibels is the level of noise typically found in a large office, the report indicated.

The link between heart attack and noise might be due to noise increasing psychological stress and anger, which could lead to increased levels of adrenaline and noradrenaline, which are associated with increased blood pressure and cholesterol, Willich noted.

One expert thinks the connection between heart attack and noise may be valid.

"One of the strengths of the paper is the attempt to include traditional, established risk factors for coronary heart disease in the explanatory model, including hypertension, smoking, obesity, as well as socioeconomic status," said Dr. Peter Rabinowitz, an associate professor of internal and occupational medicine at Yale University School of Medicine.

The fact that a noise effect remains after adjusting for these multiple factors is notable, Rabinowitz added. "The paper provides further support for the possibility that noise, a hazard so common we tend to take it for granted, is contributing to the burden of cardiovascular disease."

It is possible that noise is a marker for other stressful environmental conditions related to modern living, Rabinowitz said. "Since there are steps that society can take to reduce both environmental and workplace noise, however, it seems advisable to continue to explore the possibility that such interventions could have a significant health benefit."

Another expert believes that while the connection between noise and increased risk of heart attack is not proven, it is worth further study.

"This article addresses an important question," said Dr. Harlan M. Krumholz, a professor of cardiology at Yale University Medical School. "But you are left with more questions than answers," he added.

Krumholz wondered if other factors could explain the finding. These include diet, stress and obesity. "The finding may just mark people who have fewer resources," he said.

"What's left open is whether the noise is causing the increased risk or whether people in those environments are subject to some other kind of risk factors," Krumholz said.

In the meantime, avoiding noise may be the only solution to lowering sonic hazards to health, Willich said.

"If you are at risk for heart disease you can try to avoid long chronic noise exposure," he said. "It may be easier said than done," he admitted. "But you can try to find a job that is not noisy, or change where you live."

More information

For more on recognizing the signs of a heart attack, head to the [American Heart Association](#).

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