

Persistently noisy workplace more than doubles heart disease risk

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A persistently noisy workplace more than doubles an employee's risk of serious heart disease, suggests research published online in *Occupational and Environmental Medicine*.

Young male smokers seemed to be particularly at risk, the findings showed.

The researchers base their findings on a nationally representative sample of more than 6,000 employees, aged from 20 upwards, who had been part of the US National Health and Nutrition Examination Survey (NHANES) between 1999 and 2004.

This involved detailed household interviews, to include lifestyle and occupational health, medical examinations, and blood tests.

Participants were grouped into those who endured persistent [loud noise](#) at work, to the extent that it was difficult to talk at normal volume - for at least three months - and those who did not.

One in five (21%) workers said they put up with a noisy workplace for an average of almost nine consecutive months. Most of these workers were men with an average age of 40. They tended to weigh and smoke more - both of which are risk factors for heart disease - than those whose workplaces were quiet.

Workers in persistently noisy workplaces were between two to three

times as likely to have serious heart problems as their peers in quiet workplaces.

This association was particularly strong among workers under 50, who made up more than 4,500 of the total sample. They were between three and four times as likely to have angina or [coronary artery disease](#) or to have had a heart attack.

Men and smokers in this age group were also at greater risk

The blood tests of these workers did not indicate particularly high levels of cholesterol or inflammatory proteins, both of which are associated with [heart disease](#).

But diastolic blood pressure, which measures the pressure of the artery walls when the heart relaxes between heartbeats, was higher than normal, a condition known as isolated diastolic hypertension, or IDH. This is an independent predictor of serious [heart problems](#).

The findings suggest that those regularly exposed to loud noise at work were twice as likely to have IDH.

The authors speculate that loud noise day after day may be as strong an external stressor as sudden strong emotion or physical exertion, the effect of which is to prompt various chemical messengers to constrict blood flow through the coronary arteries.

And they conclude: "This study suggests that excess noise exposure in the workplace is an important occupational health issue and deserves special attention."

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