



## Road traffic noise increases risk of heart attack

**Noise is a serious** and growing environmental problem worldwide. New research reveals that exposure to high levels of road traffic noise increases the risk of heart attacks. These findings add to concerns about the impact of noise on health.

The **World Health Organisation** (WHO) estimates that around 40 per cent of the European population is exposed to noise from road traffic exceeding 55 decibels during the day. The EU's 2002 Environmental Noise Directive acknowledges the significant problem noise poses in urban environments and seeks to provide a uniform basis on which to measure and address noise pollution<sup>1</sup>.

Previous studies have shown that noise has negative effects on the cardiovascular system and has been linked to higher blood pressure, for example. This new study adds to these earlier findings, demonstrating that people exposed to road noise for long periods are at greater risk of heart attack.

Unlike previous studies, this research included a detailed assessment of exposure to road traffic noise over a 20 year period. Because the study also explored noise exposure from smaller roads, the researchers were able to look at the effects of long term exposure to lower levels of noise. They found that even at 50 decibels there was a noticeable increase in the risk of heart attack. For example, the study found that people exposed to noise exceeding 50 decibels over a 20 year period, are at a 40 per cent higher risk of having a heart attack.

More than 3500 people living in Stockholm were involved in the study, 1500 with a history of heart attack and 2000 with no previous history of heart attack. The researchers explored where the participants had lived over a 20 year period and mapped this relationship with traffic intensity and the location of nearby roads.

In this study of an urban population, 65 per cent of participants were exposed to daytime noise levels exceeding 50 decibels. The study found that noise increased the risk of heart attacks amongst women and men equally. The effects of other influences, such as air pollution, were accounted for.

The authors argue that local authorities should consider the impact of noise when planning new roads in residential areas. They should also develop strategies to reduce high levels of noise from road traffic.

1. <http://ec.europa.eu/environment/noise/directive.htm>

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