

New study highlights smoking intensity in coronary heart disease risk

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Increased relative risks for coronary heart disease (CHD) have long been associated with smoking, and traditionally they have been dependent on the number of cigarettes smoked a day, smoking intensities, and total exposure over time. A study published today in *Nicotine & Tobacco Research* suggests relative CHD risk is higher for smokers consuming cigarettes over a longer period of time than for smokers consuming the same quantity over a shorter period.

After observing data from nearly 120,000 participants over 27 years, researchers found the risk is higher for smokers with longer exposure to cigarettes. For example, an individual who smoked 20 cigarettes a day for 50 years has a higher relative risk of heart disease (relative risk 2.2) than someone who smoked 50 cigarettes a day for 20 years (relative risk 1.7). Although both participants have smoked the same number of [cigarettes](#), the longevity of exposure impacts CHD risk - a relationship described by researchers as the "delivery rate effect."

Acknowledging that cigarette smoking has both long-term and short-term effects on CHD, these findings suggest the long-term effects of smoking have an increased consequence. The relationship to CHD risk from smoking for a longer duration also appears to be a more widespread phenomenon than previously thought.

"We now have observed inverse smoking intensity effects in multiple cohorts with differing [smoking](#) patterns and other characteristics, suggesting a common underlying phenomenon," says lead author Jay H.

Lubin, PhD, with the U.S. National Cancer Institute at the National Institutes of Health.

More information: *Nicotine & Tobacco Research* (2016). [DOI: 10.1093/ntr/ntw290](https://doi.org/10.1093/ntr/ntw290)

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