

# Smoke-free laws do seem to help young adults' hearts

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Laws and policies that prohibit smoking in workplaces and other public

areas appeared to significantly lower the risk of cardiovascular disease among a group of young adults who were followed over a 20-year span.

The study findings are consistent with previous studies that found health benefits as a result of smoke-free policies, including lower risks of heart- and lung-related illnesses and diseases.

But the new research, published May 7 in the American Heart Association journal *Circulation*, is believed to be the first to follow—and capture specific details about—thousands of young adults over a period of several decades.

The study's researchers relied on the extensive records initially collected in a 1985 study that followed thousands of [young adults](#) around the country. The report drilled down on findings from the last 20 years of the study, featuring 3,783 individuals.

"Our results suggest that smoke-free policies in workplaces in particular may be a promising approach to preventing premature cardiovascular disease," said the report's lead author, Dr. Stephanie Mayne, a postdoctoral research fellow at Northwestern University Feinberg School of Medicine.

Smoke-free policies in restaurants and bars were associated with about a 25 percent lower risk of a cardiovascular incident, such as a heart attack or stroke, according to the study. Such policies in workplaces were linked to a 46 percent lower risk.

Currently, 25 states and the District of Columbia, Puerto Rico and the U.S. Virgin Islands have passed laws that prohibit smoking in all restaurants, bars and other workplaces that aren't part of the hospitality industry. Collectively, those laws along with local policies passed in other states protect roughly 59 percent of the U.S. population, according

to data cited in the report.

"The evidence is pretty strong that smoke-free policies have important health impacts in terms of protecting the population from adverse consequences of tobacco smoke, but a large part of the U.S. population still isn't covered currently by smoke-free policies," Mayne said.

The study adjusted results based on numerous characteristics provided by the participants, including income level and education attainment, along with the cigarette tax rates for their local community. The study also accounted for medical factors such as body mass index and whether the participants smoked—about a quarter of them did—or had diabetes, high blood pressure or other health problems.

When the study first began, participants lived in four cities Birmingham, Alabama; Chicago; Minneapolis; and Oakland, Calif. By the time researchers contacted the group 10 years later, individuals had scattered among 47 states.

Dr. Glenn Hirsch, a cardiologist not connected to the study, described the report as "very robust." He particularly noted the ability by researchers to adjust for specific details about its participants, particularly those who ended up experiencing some type of cardiovascular event.

"It was a vigorous capture of all the information about these people, drilling down on what caused their event or what was a contributor to it," said Hirsch, clinical director of cardiovascular medicine at the University of Louisville.

Hirsch said the magnitude of the effects of this study was greater than other studies that examined the link between smoke-free policies and heart disease likely because of the age of its participants.

"The older that people are, the higher their risk of having a cardiovascular event. But in young people, it's the smoking that's contributing to them having events. It's not 20 or 30 years of exposure to hypertension or diabetes—they haven't had that yet," he said.

Smoking can lead someone to have a heart attack or some other cardiovascular consequence many years earlier than normal, he said.

Hirsch also pointed out that the heart's reaction to smoking differs from illnesses like cancer and lung disease, which he said have a "dose response."

"In other words, the more you smoke, the more your risk of having lung disease or cancer," he said.

It's not that way with [cardiovascular disease](#), where even one cigarette a day carries an extremely high risk of experiencing a cardiovascular event such as a [heart attack](#). But studies have shown the risk of heart [disease](#) can drop dramatically in smokers once they stop. Within five years of quitting, the [cardiovascular event](#) risk plunges to the level of a nonsmoker, Hirsch said.

"These are young people," he said of the study's participants. "And if it weren't for the smoking and the exposure to the secondhand smoke, it's most likely the majority of them would not have had an event at all during this time."

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