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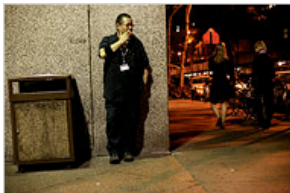
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Study Finds Big Social Factor in Quitting Smoking

By [GINA KOLATA](#)

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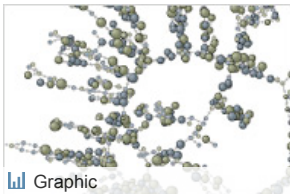
For years, smokers have been exhorted to take the initiative and quit: use a [nicotine](#) patch, chew nicotine gum, take a prescription medication that can help, call a help line, just say no. But a new study finds that stopping is seldom an individual decision.

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Oscar Hidalgo/The New York Times

Bonifacio Torres enjoys a cigarette alone in New York, but many smokers find they give up smoking as part of a group.

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Smoking and Quitting in Groups

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Smokers tend to quit in groups, the study finds, which means [smoking cessation](#) programs should work best if they focus on groups rather than individuals. It also means that people may help many more than just themselves by quitting: quitting can have a ripple effect prompting an entire social network to break the habit.

The study, by Dr. Nicholas Christakis of Harvard Medical School and James Fowler of the University of California, San Diego, followed thousands of smokers and nonsmokers for 32 years, from 1971 until 2003, studying them as part of a large network of relatives, co-workers, neighbors, friends and friends of friends.

It was a time when the percentage of adult smokers in the United States fell to 21 percent from 45 percent. As the investigators watched the smokers and their social networks, they saw what they said was a striking effect — smokers had formed little social clusters and, as the years went by, entire clusters of smokers were stopping en masse. So were clusters of clusters that were only loosely connected.

Dr. Christakis described watching the vanishing clusters as like lying on your back in a field, looking up at stars that were burning out. "It's not like one little star turning off at a time," he said. "Whole constellations are blinking off at once."

As cluster after cluster of smokers disappeared, those that remained were pushed to the margins of society, isolated, with fewer friends, fewer social connections. "Smokers used to be the center of the party," Dr. Fowler said, "but now they've become wallflowers."

"We've known [smoking](#) was bad for your physical health," he said. "But this shows it also is bad for your social health."

Smokers, he said, "are likely to drive friends away."

Their paper is to be published Thursday in The [New England Journal of Medicine](#).

"There is an essential public health message," said Richard Suzman, director of the office of behavioral and social research at the National Institute on Aging, which financed the study.

"Obviously, people have to take responsibility for their behavior," Mr. Suzman said. But a social environment, he added, "can just overpower free will."

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It may be easy to start smoking, but quitting is a bit trickier.

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"A social group may have some influence, but ultimately the decision to quit will always be with the smoker alone."

Angela Barnes, Norfolk, VA

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The new study also looked at smoking initiation but, because many more adults were stopping smoking than starting in the years of the study, its main focus was on cessation. Still, Dr. Christakis said, smoking initiation followed the same patterns as cessation: people started and stopped smoking in groups.

Such studies of social networks and behavior like smoking are extremely difficult because what is needed is detailed information on people's behavior and the behavior of their family, their relatives, their neighbors and co-workers, their friends and their friends of friends. Dr. Christakis and Dr. Fowler discovered one data set that had what they needed but, they and others say, there may not be any others.

The data were from the federal Framingham Heart Study. It was initiated after World War II to follow the population of Framingham, Mass., in order to understand the causes and consequences of heart disease. Researchers regularly examined the study participants, weighing them, doing medical exams, asking them whether they smoked. In order to keep track of the subjects over the years, even if they moved away, the investigators asked for the names and contact information of close friends, co-workers and neighbors.

That meant, though, that the data set also contained all the information that would be needed for an analysis of social networks and the spread of obesity or, in this case, for an analysis of social networks and the decline in smoking, Dr. Christakis and Dr. Fowler realized.

The researchers focused on 5,124 people in the Framingham study who had 53,228 friends, relatives and neighbors as part of their social networks.

They noticed that, on average, smokers clustered in groups of three. Over the years, as fewer and fewer Americans smoked, the number of clusters declined but the clusters that remained stayed the same size, which meant that smokers were not stopping smoking one by one. They were stopping in groups.

Education also played a role. Those with more education were more highly influenced by their friends, and their friends were more likely to influence them. And some social contacts were more influential than others. A spouse's quitting was more powerful than a friend's, and a friend's quitting was more powerful than a sibling's. If someone you name as a friend quits, that has more of an effect than if someone who names you as their friend quits. Co-workers had an influence only in small firms where everyone knew one another. The effects were greater among casual smokers than heavy smokers.

The study and the obesity study that preceded it, said Duncan Watts, principal research scientist at Yahoo! Research in New York, provide a new view of society.

"We tend to think of individuals as atomized units, and we think of policies as good or bad for individuals," Dr. Watts said. "This reminds us that we are all connected to each other, and when we do something to one person, there are spillover effects."

And, he added, when the same sort of effects show up in the spread of obesity as in the decline of smoking, that should be a signal.

"Something very powerful is going on here," Dr. Watts said.

With smoking, that can be a good thing, researchers noted.

But there also is a sad side. As Dr. Steven Schroeder of the University of California, San Francisco, pointed out in an editorial accompanying the paper, "a risk of the marginalization of smoking is that it further isolates the group of people with the highest rate of smoking — persons with mental illness, problems with [substance abuse](#), or both."

These are people, Dr. Schroeder notes, who already suffer from being stigmatized.

It is not clear how to resolve that problem, Dr. Fowler said. "What we are seeing is that there is a fundamental trade-off to having a campaign to really change people's behavior," he said.

Dr. Christakis and Dr. Fowler published a similar study last year on [obesity](#), asking about the rise of a health problem.

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