

Smoking pot doesn't hurt lung capacity, study shows

Smoking a joint a day for up to seven years didn't cause a reduction in lung capacity, a new study shows.

By Kimberly Hayes Taylor

Periodically smoking marijuana doesn't appear to hurt lung capacity, the largest study ever conducted on pot smokers has found.

Even though most marijuana smokers tend to inhale deeply and hold the smoke in for as long as they can before exhaling, the lung capacity didn't deteriorate even among those who smoked a joint a day for seven years or once a week for 20 years, according to the study published Tuesday in JAMA, the journal of the American Medical Association.

In recent years, studies on marijuana smoking and its effects on lung function have been contradictory. While most studies have shown no effects on the lungs from smoking cannabis, others have shown adverse effects, and still others have shown improvement in lung function. Researchers at the University of California, San Francisco, and University of Alabama at Birmingham knew tobacco smoking causes lung damage and leads to respiratory issues such as chronic obstructive pulmonary disease (COPD), but they wanted to be clear whether smoking marijuana, had similar effects.

They measured lung function multiple times in more than 5,100 men and women during a 20-year period. In fact, the research shows, some people who regularly smoke marijuana can have a slight improvement in lung function.

Experts say that people shouldn't simply take the news as green light to get high, but should also consider other factors.

"Marijuana is a complicated substance, and for people who are thinking about what they've done in the past or are thinking about using marijuana or believing it can help medically, their decision should not be based on lung consideration," says study co-author Dr. Stefan Kertesz, a researcher and primary care doctor at University of Alabama at Birmingham and the Birmingham VA Medical Center.

"It's not a decision about lung health, it's all the other issues: the risk of addiction, an increase in the chance of having accidents and social functioning."

Researchers reached their findings by using data from the Coronary Artery Risk Development in Young Adults, collecting repeated measurements of lung function and smoking from March 1985 to August 2006. More than half of the participants, or 54 percent, said they were current marijuana smokers, cigarette smokers or both when the study began. The average marijuana use was only a joint or two a few times a month — typical for U.S. marijuana users, Kertesz said.

The authors calculated the effects of tobacco and marijuana separately, both in people who used

only one or the other, and in people who used both. They also considered other factors that could influence lung function, including air pollution in cities studied.

The analyses showed pot didn't appear to harm lung function, but cigarettes did. Cigarette smokers' test scores worsened steadily during the study.

Researchers measured how well participants could blow air in and out. A healthy adult can exhale about a gallon of air in one second. Although their study focused on lighter smokers, they found some people who smoked more than a joint a day for seven years, could exhale slightly more air than that.

Kertesz says that extra strength may come from the habit of deeply inhaling, holding and slowly exhaling marijuana smoke.

“It’s a tiny increase; it’s not a big increase to lung health,” he says. “So be careful not to say that, ‘Oh, wow! Lungs work better on marijuana.’ That would be totally inaccurate.”

Authors say there weren't enough heavy users (those who smoked two or more joints a day) among those in the study to draw firm conclusions on that group.

Dr. Donald Tashkin, who has studied the relationship between marijuana smoking and lung function for more than 30 years as a professor of medicine at UCLA, says the study confirms what other research has also concluded.

“This is a well-done study involving more subjects than in the past,” says Tashkin, who is not affiliated with the new study. “The public should take away it’s a confirmatory study, but larger and longer than previous studies demonstrating, once again, that smoking marijuana does not impair lung function, unlike tobacco.”

Tashkin says scientists have a theory that lung capacity is not affected in marijuana smokers because the chemical THC in marijuana has immunosuppressant properties that interfere with the development of respiratory issues such as COPD. He says this indicates there will be lower rates of COPD, but marijuana smokers are still at risk for chronic bronchitis, which means they tend to have increased cough and mucus. The study didn't look at the risk of lung cancer.

And Tashkin cautions about drawing overall conclusions from the new work: “We’re only talking about one end point. We’re not looking at lung cancer, chronic bronchitis symptoms. We are not looking at other effects, behavioral effects. We are looking at lung function.”

The Associated Press contributed to this report.