

Smoking cessation may actually increase risk of developing type 2 diabetes

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Cigarette smoking is a well-known risk factor for type 2 diabetes, but new research from Johns Hopkins suggests that quitting the habit may actually raise diabetes risk in the short term.

The researchers suspect the elevated diabetes risk is related to the extra pounds people typically put on after renouncing cigarettes and caution that no one should use the study's results as an excuse to keep smoking, which is also a risk factor for lung disease, [heart disease](#), strokes and many types of cancer.

"The message is: Don't even start to smoke," says study leader Hsin-Chieh "Jessica" Yeh, Ph.D., an assistant professor of general internal medicine and epidemiology at the Johns Hopkins University School of Medicine.

"If you smoke, give it up. That's the right thing to do. But people have to also watch their weight," she adds.

In the study, published in the January 5 issue of *Annals of Internal Medicine*, researchers found that people who quit smoking have a 70 percent increased risk of developing [type 2 diabetes](#) in the first six years without cigarettes as compared to people who never smoked. The risks were highest in the first three years after quitting and returned to normal after 10 years. Among those who continued [smoking](#) over that period, the risk was lower, but the chance of developing diabetes was still 30 percent higher compared with those who never smoked.

The study enrolled 10,892 middle-aged adults who did not yet have diabetes from 1987 to 1989. The patients were followed for up to 17 years and data about diabetes status, glucose levels, weight and more were collected at regular intervals.

Type 2 diabetes is a common disease that interferes with the body's ability to properly use sugar, and to regulate and properly use insulin, a substance produced by the pancreas which normally lowers blood sugar during and after eating. In type 2 diabetes, also known as adult-onset diabetes, the [pancreas](#) makes plenty of [insulin](#) to help the body when food is eaten, but the body cannot use it normally. The result is excess levels of blood sugar, which over time, can lead to blindness, kidney failure, nerve damage and heart disease. Overweight people and those with a family history of the disease have an increased risk for developing it, as do smokers, though the causal relationship is unclear.

According to the study, those who smoked the most and those who gained the most weight had the highest likelihood for developing diabetes after they quit. On average, over the first three years of the study, quitters gained about 8.4 pounds and saw their waist circumferences grow by approximately 1.25 inches.

Yeh and her colleagues want physicians to keep these findings in mind when they are consulting with patients who are giving up cigarettes, especially the heaviest smokers. They recommend considering countermeasures such as lifestyle counseling, aggressive weight management and the use of nicotine-replacement therapy, which seems to blunt the weight gain related to quitting. Another key step is more frequent blood glucose screening to assure the earliest detection of diabetes.

Provided by Johns Hopkins Medical Institutions

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