

New research shows genetic test for lung cancer risk prompts smokers to quit

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New research shows a gene-based test for lung cancer risk assessment motivates smokers to quit or cut down, according to results of a clinical study presented today at the American Association of Cancer Research's Ninth Annual Conference on Frontiers in Cancer Prevention Research.

Six months after taking the Respiragene test to identify susceptibility for [lung cancer](#) risk, 32% of the randomly recruited [smokers](#) in the study had quit smoking altogether and a further 48% had reduced their intake of cigarettes. More than half of the smokers taking the risk test (63%) had used nicotine replacement products, the first line therapy recommended to help smokers quit. More than 90% of those who took the risk stratification test said they would recommend it to family and friends who smoked.

"The findings from this research support other studies showing gene-based risk testing of smokers leads to significantly reduced smoking rates," said Dr Robert Young, Associate Professor of Medicine and [Molecular Genetics](#) at Auckland University, who presented the study findings. "Current quit rates are pretty dismal. Given the number of lung cancer deaths each year, improving those quit rates must be a priority."

Only about 4% to 7% of people are able to quit smoking on any given attempt without medicines or other help, according to the American Cancer Society.

Lung cancer kills more than 440 Americans a day and more than

157,000 a year. In the United States, lung cancer accounts for nearly 30% of all smoking-related deaths. The single most important action a smoker can take to reduce their risk is to quit smoking. Although the link between smoking and lung cancer is well known—approximately 90% of lung cancers are diagnosed in current or former smokers—smoking rates remain static in many states in the US despite ongoing public health initiatives.

"We found the results of the study very reassuring," said Dr Young. "The high rate of interest in taking Respiragene shows that smokers want to learn more about their own risk level, and for the vast majority, it helped them take positive steps to quit. These findings exceeded our expectations, especially as the participants in the study were randomly selected, and not specifically seeking support to quit smoking at the time of the study."

Young said he hoped the test, which personalizes risk for smoking-related diseases, would help lower smoking rates in the same way that measuring an individual's cholesterol and taking appropriate preventive steps to cut risk had brought a significant reduction in mortality from heart disease.

About the research

The study identified current smokers from a clinical database and randomly recruited 55 who completed a baseline questionnaire exploring their smoking habits and recent attempts to quit; 46 accepted the offer to take the test. Participants provided a simple cheek swab for DNA analysis and gave information about their family history of lung cancer and any previous diagnosis of Chronic Obstructive Pulmonary Disease (COPD). A week later smokers who underwent testing returned to the clinic for the result. The test estimates risk of lung cancer as moderate, high or very high based on DNA testing and non-genetic factors. Two

follow-up interviews took place two weeks and six months after taking the Respiragene test, examining attitudes to the test and changes in smoking behavior. More than half of the smokers taking the risk test opted to use nicotine replacement products. U.S. Department of Health guidelines for doctors recommend [nicotine](#) replacement to help smokers quit; studies consistently show that smokers are much more likely to stop smoking if they are motivated and use medication.

More information: American Association of Cancer Research Ninth Annual "Frontiers in Cancer Prevention" Conference presentations by Dr Robert Young:

"Gene-based test for lung cancer risk motivates smoking cessation in randomly selected smokers." (November 8, 2010)

"Gene-based lung cancer risk test (Respiragene) identifies high risk smokers for early detection of lung cancer." (November 9, 2010)

"Susceptibility loci for lung cancer - are COPD-related genes the missing link?" (November 9, 2010)

Provided by Chempetitive Group

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