

# Tests showing smokers their individual risk of future disease will help them quit, says paper

February 4 2010

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Giving smokers information about their own individual risk of serious illness helps motivate them to quit smoking, according to a paper published in the current issue of *Postgraduate Medical Journal*.

"Personalized risk assessment has been the mainstay of [coronary artery disease](#) prevention and has resulted in significant mortality reduction over the last decade," said Dr. Robert Young, lead author of the article. "Such an approach could be equally applied to smoking cessation, now that we have predictive risk assessment tools that identify those at greatest risk of lung-related illness from smoking."

Though about half of long-term smokers die from smoking-related disease, and 50% of those deaths will come from lung cancer or [chronic lung disease](#), many smokers believe they will be the ones who will escape unharmed; they carry on smoking or they try but fail to quit.

The PMJ article endorses a new model for smoking cessation to help doctors engage smokers more effectively by using what it calls 'motivational tension' - anxiety based on a smoker's perception of harms versus benefits. Health concerns are an important factor in motivating smokers to quit; smoking cessation rates appear to be greatest where smokers have suffered, or been shown to be personally at risk of, life threatening complications from their smoking.

In this setting, risk assessment tools that identify those at greatest risk, such as spirometry (a puff test to measure lung function) and [genetic susceptibility](#) testing, appear to help engage smokers and improve their smoking cessation rates. When smokers see their individual risk as a result of [lung function](#) or genetic tests, that new personalised information is likely to trigger a quit attempt, and will make that quit attempt more likely to succeed. This is very similar to cholesterol and blood pressure testing in the context of cardiovascular risk assessment and treatment.

According to studies cited in the article, [genetic testing](#) for smoking-related disease demonstrated utility for all smokers and found no evidence of fatalism in higher risk people or reduced motivation for those at lower risk levels.

Smokers' attitudes about whether to carry on smoking are based on how they balance the perceived "benefits" against their understanding about the harm it causes, and their individual vulnerability to this harm, according to studies cited in the PMJ article. The "Editor's Choice" paper says even relatively small triggers can change this balance, prompting a quit attempt.

Currently, the smoking quit rate remains discouragingly low. Smokers try to quit on average 12 to 14 times before they succeed, and only about 5% of cold-turkey tries work. Every year about 41% of smokers try to quit but only 10% succeed. Drugs and nicotine replacement help, but still achieve one-year quit rates of only up to 30%.

The paper says recent research shows says [smoking cessation](#) 'interventions' by doctors that give both a trigger for action and also provide support such as medication or anti-smoking counselling may be the most effective way to help smokers quit.

A similar approach works for coronary artery disease, where cholesterol

testing to personalise an individual's risk helps give doctors a way to encourage patients to make lifestyle changes or take medications. "The recent reduction in coronary artery disease mortality has, in part, been attributed to this approach," the paper says.

For smokers, both spirometry and genetic testing appear to improve quit rates, it says.

Dr Young, an Associate Professor in the Schools of Biological Sciences and Medicine at the University of Auckland in New Zealand, has led the research program underpinning a test called Respiragene™ which combines genetic and non-genetic factors to show smokers and ex-smokers their own risk of lung cancer, still the leading cancer killer in most developed countries, including the United States. Preliminary studies show that over 50% of [smokers](#) taking the Respiragene™ test take positive steps such as quitting, reducing their cigarette intake or setting a quit date. Further studies are planned to assess smoker's actions after taking the test.

Provided by Chempetitive Group

Citation: Tests showing smokers their individual risk of future disease will help them quit, says paper (2010, February 4) retrieved 23 April 2024 from <https://medicalxpress.com/news/2010-02-smokers-individual-future-disease-paper.html>

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