

**Smoking Cessation in Old Age: Less Heart Attacks and Strokes After Only Five Years**

**Smokers increase their risk of myocardial infarction (heart attack) and stroke with every cigarette they smoke. Conversely, those who quit smoking even at an advanced age will have a considerable decrease in their risk after a very short time. Scientists from the German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) published their results in the European Journal of Epidemiology.**

Professor Hermann Brenner and colleagues analyzed the data of 8.807 individuals aged between 50 and 74 years using data of Saarland citizens. "We were able to show that the risk of smokers for cardiovascular diseases is more than twice that of non-smokers. However, former smokers are affected at almost the same low rate as people of the same age who never smoked," says Brenner. "Moreover, smokers are affected at a significantly younger age than individuals who have never smoked or have stopped smoking." For example, a 60-year-old smoker has the same risk of myocardial infarction as a 79-year-old non-smoker and the same risk of stroke as a 69-year-old non-smoker. Dose and duration of tobacco consumption also have an impact on disease risk. The more cigarettes a smoker consumes per day over a prolonged period of time, the higher his or her risk raises.

The study shows that the positive effect of smoking cessation becomes noticeable within a short period of time. "Compared to individuals who continue smoking, the risk of myocardial infarction and stroke is reduced by more than 40 percent already within the first five years after the last cigarette," says Carolin Gellert, first author of the study. The results suggest that smoking cessation programs, which have concentrated on younger participants up to now, should be expanded to reach out to older people as well.

Last year, Hermann Brenner and his colleagues had already studied the impact of smoking on the overall mortality of people beyond the age of 60. They had used data from international studies without German participation. In their latest study, they have evaluated data from the so-called ESTHER Study whose participants are from Saarland, a state of Germany. They included those individuals who had not suffered a heart attack or stroke prior to study start and whose health status had been surveyed for up to ten years afterwards. In their evaluation, the scientists also took account of the effects of other factors such as age, gender, alcohol consumption, education and physical exercise as well as blood pressure, diabetes, cholesterol levels, body height and weight.

Carolin Gellert, Ben Schöttker, Heiko Müller, Bernd Holleczeck, Hermann Brenner: Impact of smoking and quitting on cardiovascular outcomes and risk advancement periods among older adults. *Eur J Epidemiol.* 2013. doi: 10.1007/s10654-013-9776-0.

The German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) with its more than 2,500 employees is the largest biomedical research institute in Germany. At DKFZ, more than 1,000 scientists investigate how cancer develops, identify cancer risk factors and endeavor to find new strategies to prevent people from getting cancer. They develop novel approaches to make tumor diagnosis more precise and treatment of cancer patients more successful. The staff of the Cancer Information Service (KID) offers information about the widespread disease of cancer for patients, their families, and the general public. Jointly with Heidelberg University Hospital, DKFZ has established the National Center for Tumor Diseases (NCT) Heidelberg, where promising approaches from cancer research are translated into the clinic. In the German Consortium for Translational Cancer Research (DKTK), one of six German Centers for Health Research, DKFZ maintains translational centers at seven university partnering sites. Combining excellent university hospitals with high-profile research at a Helmholtz Center is an important contribution to improving the chances of cancer patients. DKFZ is a member of the Helmholtz Association of National Research Centers, with ninety percent of its funding coming from the

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