

Much of the increased risk of death from smoking reduced within several years after quitting

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Women who quit smoking significantly reduce their risk of death from coronary heart disease within 5 years and have about a 20 percent lower risk of death from smoking-related cancers within that time period, according to a study in the May 7 issue of JAMA.

"Tobacco use remains the leading preventable cause of death in the United States. Globally, approximately 5 million premature deaths were attributable to smoking in 2000. The World Health Organization projects by 2030 that tobacco-attributable deaths will annually account for 3 million deaths in industrialized countries and 7 million in developing countries," the authors write. They add that the rate of mortality risk reduction after quitting compared with continuing to smoke is uncertain.

Stacey A. Kenfield, Sc.D., of the Harvard School of Public Health, Boston, and colleagues assessed the relationship between cigarette smoking and smoking cessation on total and cause-specific mortality in women by analyzing data from the Nurses' Health Study, an observational study of 104,519 female participants, with follow-up from 1980 to 2004. A total of 12,483 deaths occurred in this group, 4,485 (35.9 percent) among never smokers, 3,602 (28.9 percent) among current smokers, and 4,396 (35.2 percent) among past smokers.

The researchers found a significant 13 percent reduction in the risk of allcause mortality within the first 5 years of quitting smoking compared



with continuing to smoke, and the excess risk decreased to the level of a never smoker 20 years after quitting, with some causes taking more or less time. "Significant trends were observed with increasing years since quitting for all major cause-specific outcomes. A more rapid decline in risk after quitting smoking compared with continuing to smoke was observed in the first 5 years for vascular diseases compared with other causes."

"Much of the reduction in the excess risk for these causes of death were realized within the first 5 years for coronary heart disease and cerebrovascular disease. Sixty-one percent of the full potential benefit of quitting in regard to coronary heart disease mortality and 42 percent of the full potential benefit of quitting in regard to cerebrovascular mortality was realized within the first 5 years of quitting smoking, when comparing hazard ratios for recent quitters of less than 5 years with long-term quitters of 20 years or greater. For death due to respiratory disease, an 18 percent reduction in risk of death was observed 5 to 10 years after quitting smoking, with the risk reaching that of a never smoker's risk after 20 years."

For lung cancer mortality, a significant 21 percent reduction in risk was observed within the first 5 years compared with continuing smokers, but the excess risk did not disappear for 30 years. Past smokers with 20 to less than 30 years of cessation had an 87 percent reduction in risk of lung cancer mortality compared with current smokers. When including the other smoking-related cancers, the excess risk approached a never smoker's risk more than 20 years after quitting smoking.

Significant trends were observed for earlier age at initiation of smoking for total mortality, respiratory disease mortality, and all smoking-related cancer mortality. The data also suggested that smoking is associated with an increased risk of colorectal cancer mortality but not ovarian cancer mortality. The researchers also found that approximately 64 percent of



deaths among current smokers and 28 percent of deaths among former smokers were attributable to cigarette smoking.

"Early age at initiation is associated with an increased mortality risk so implementing and maintaining school tobacco prevention programs, in addition to enforcing youth access laws, are key preventive strategies. Effectively communicating risks to smokers and helping them quit successfully should be an integral part of public health programs," the authors conclude.

Source: JAMA and Archives Journals

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