

Smoking increases risk of breast cancer in postmenopausal women

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Postmenopausal women who smoke or used to smoke have up to a 16% higher risk of developing breast cancer compared to women who have never smoked, finds research published in the British Medical Journal today.

The study also says that women who have had extensive exposure to passive smoking, either as children or in adulthood, may also have an excess risk of developing [breast cancer](#).

While some previous studies have indicated that smoking increases the risk of breast cancer, the theory that passive smoking is also a risk factor, remains controversial.

The researchers, led by Dr Juhua Luo from West Virginia University and Dr Karen Margolis from the HealthPartners Research Foundation in Minneapolis, decided to carry out a large scale study following participants over a long period of time to investigate the issue further.

The research team used data from the 1993-98 Women's Health Initiative Observational study to determine links between smoking, passive smoking and breast cancer.

They analysed data for almost 80,000 women, aged between 50 and 79 years, across 40 clinical centres in the United States. In total, 3,250 cases of invasive breast cancer were identified by the researchers during ten years of follow-up.

The participants were asked a range of questions about their smoking status, for example whether they had ever smoked or were former or current smokers. Current or former smokers were asked the age at which they started smoking and the number of [cigarettes](#) smoked a day. Former smokers were asked the age at which they quit.

Questions on passive smoking related to whether the participants lived in smoking households as children and/or as adults, and whether they had worked in smoking environments.

The results show that smokers have a 16% increased risk of developing breast cancer after the [menopause](#). The increased risk for former [smokers](#) is 9%. The highest breast cancer risk was found among women who had smoked for over 50 years or more compared with lifetime non-smokers. Women who started smoking as teenagers were also at particularly high risk. An increased risk of breast cancer continued for up to 20 years after an individual stopped smoking.

The findings also reveal that among non-smoking women, those who had been exposed to extensive passive smoking, for example over 10 years' exposure in childhood; over 20 years' exposure as an adult at home and over 10 years' exposure as an adult at work; had a 32% excess risk of breast cancer.

The authors stress, however, that their analysis of the link between breast cancer and secondhand smoke was restricted to the most extensive [passive smoking](#) category and therefore more research is needed to confirm these findings.

"Our findings highlight the need for interventions to prevent initiation of smoking, especially at an early age, and to encourage smoking cessation at all ages", Dr Margolis concludes.

In an accompanying editorial, Professor Paolo Boffetta from the Mount Sinai School of Medicine in New York, says Margolis' study "supports the hypothesis that [smoking](#) increases the risk of breast cancer, in particular when the habit starts early in life".

However, Boffetta adds that the data needs to be placed in the context of the overall evidence, some of which found no increase in risk. He also agrees that the evidence on secondhand smoke is not conclusive and further studies are required.

Provided by British Medical Journal

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