

Aspirin could reduce ovarian cancer rates for those at higher genetic risk

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A study published in *JAMA Network Open* suggests that frequent aspirin use reduces the risk of nonmucinous ovarian cancer, regardless of most genetic risk factors. Associations between frequent aspirin use and

reduced risk of ovarian cancer were observed for individuals with genetic risk factors less than and greater than the median. Risk reductions were most significant for high-grade serous and endometrioid tumors.

Researchers from the U.S., Australia, and the U.K. pooled analysis of eight previous case-control studies from the Ovarian Cancer Association Consortium to assess the association between frequent aspirin use and ovarian cancer risk. Frequent aspirin use was defined as self-reported daily or almost daily use for six months or longer. Researchers only included individuals from the eight studies with [genetic data](#) available.

Patients with nonmucinous ovarian cancer totaling 4,476 and 6,659 control participants were included in the analysis. There were 575 patients and 1,030 control participants who reported frequent aspirin use. The 13% reduction in ovarian cancer risk associated with frequent aspirin use was not affected by the patient's polygenic risk score (PGS), a [risk assessment](#) based on known genetic correlations to the disease.

In the analysis, individuals with a PGS greater than the 80th percentile, the highest genetic risk group, did not show a reduced risk associated with aspirin use. However, the researchers point out that this group fell outside the data interrogation's statistical confidence index of 95% CI—meaning that while the study was unable to confirm a risk reduction, a reduction, even 13%, could be taking place for these individuals as well, and so should not be considered a null result but an area needing further study.

The researchers point out that serious adverse events can occur with aspirin use, including [gastric ulcers](#) and hemorrhagic stroke. Additionally, ovarian cancer rates in the [general population](#) are low (1.3% of women, according to the American Cancer Society), and frequent aspirin use is not a recommended preventative measure for all

women. The researchers suggest that aspirin use could be selectively helpful for [individuals](#) with higher ovarian cancer PGS scores to improve the benefit-harm risk profile of frequent aspirin use.

More information: Lauren M. Hurwitz et al, Association of Frequent Aspirin Use With Ovarian Cancer Risk According to Genetic Susceptibility, *JAMA Network Open* (2023). [DOI: 10.1001/jamanetworkopen.2023.0666](#)

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