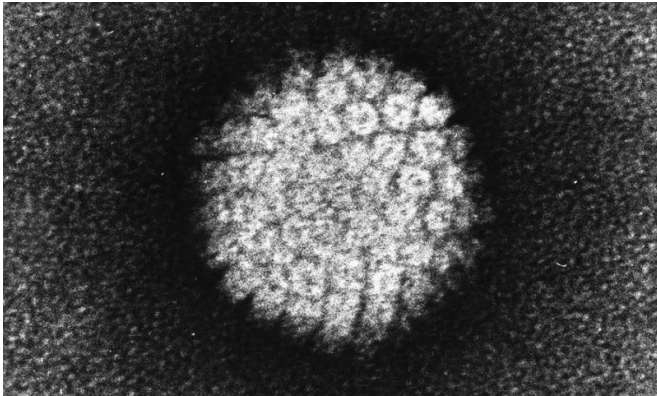


Increased cervical cancer risk in women with positive HPV, but no cellular abnormalities

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Electron micrograph of a negatively stained human papilloma virus (HPV) which occurs in human warts. Credit: public domain

Researchers have uncovered an increased risk of cervical cancer in women whose cervical cells test positive for certain high-risk human papillomavirus (HPV) types but do not show any signs of cellular abnormalities. Published early online in *Cancer*, a peer-reviewed journal of the American Cancer Society, the findings may help refine guidelines for cervical cancer screening.

Certain HPV types can cause cervical [cancer](#), with types HPV16 and HPV18 being responsible for most cases. Due to this causative link, sensitive tests for HPV infection have been developed to help identify women who are at high risk of developing cervical cancer. A team of investigators at the Karolinska University Hospital and Institute in Sweden, along with collaborators in the United States, Slovenia, and Belgium, conducted a study to determine what risk women may face if they test positive for HPV but their cervical cells do not show any indication of being cancerous (through a test called liquid-based cytology, which is similar to the

Papanicolaou [Pap] smear but according to some reports, more sensitive).

The study included 576 women with normal findings on liquid-based cytology of the cervix who were followed for 9 years. During that follow-up period, 92 of the women developed high-grade pre-cancerous cervical changes and 4 women developed cervical cancer. These 96 women (cases) were compared with 480 women with normal findings on follow-up cervical cytology and matched by age (controls). All 576 baseline cervical samples were tested retroactively for HPV.

The researchers found that a positive HPV finding was much more common among the cases than among the controls. For women younger than 30 years, only HPV16 and HPV18 were present significantly more often among cases than controls and were therefore associated with an increased risk of pre-cancerous cervical changes and cervical cancer. For women aged 30 years and older, other HPV types in addition to HPV16 and HPV18 conferred significant risk.

"These findings can help in the ongoing development of guidelines for cervical cancer [screening](#). They strongly indicate that testing for HPV needs to be incorporated into screening programs," said principal investigator Sonia Andersson, MD, Ph.D., of the Karolinska University Hospital and Institute in Sweden. "Women younger than 30 with a positive HPV16 or HPV18 finding need to be closely followed, whereas other HPV types are much less likely to be associated with increased risk in these younger women. Among women above age 30, any HPV positive finding should be closely followed." Dr. Andersson also noted that women who are found to have pre-cancerous cervical changes should receive appropriate gynecologic treatment to help prevent

the development of invasive cervical cancer. She emphasized that [women](#) need to fully participate in cervical cancer screening; to have accurate knowledge about HPV and cervical pre-cancer and cancer; and to be continuously informed about cervical cancer screening guidelines as they evolve.

More information: Maria Fröberg et al, Impact of the human papillomavirus status on the development of high-grade cervical intraepithelial neoplasia in women negative for intraepithelial lesions or malignancy at the baseline: A 9-year Swedish nested case-control follow-up study, *Cancer* (2018). [DOI: 10.1002/cncr.31788](https://doi.org/10.1002/cncr.31788)

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