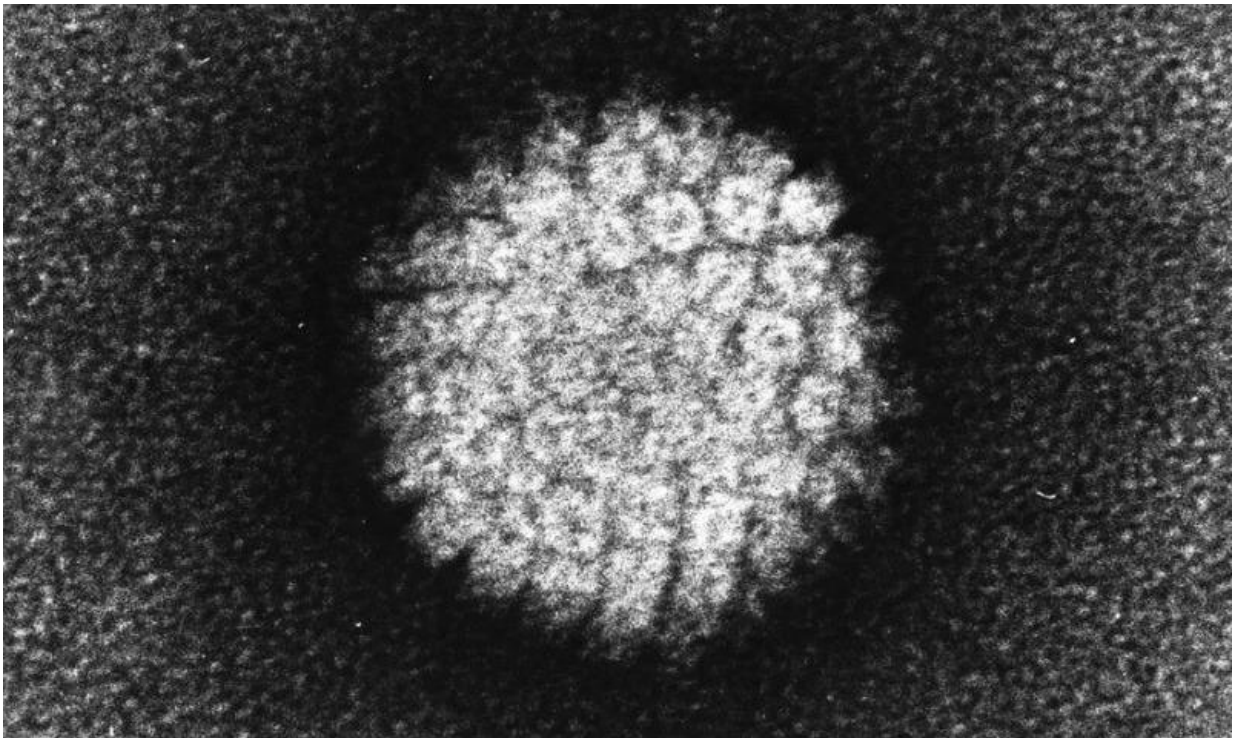


Screening every five years safe for women who test negative for HPV, study confirms

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

A study of 1.3 million women in England has provided evidence to support the extension of cervical cancer screening intervals from three years to five years for those that have a negative screen result.

The study, published today in the *British Medical Journal* by researchers from King's College London and funded by Cancer Research UK, provides reassurance to women and people with a cervix aged 24-49 years who test negative for the human papillomavirus (HPV), that screening at five-year intervals prevents as many cancers as screening at three-year intervals, even if they are not vaccinated against HPV.

The study confirms that women in this age group are much less likely to develop clinically relevant cervical lesions (high-grade [cervical intraepithelial neoplasia](#), which are abnormal changes of the cells that line the cervix and are otherwise known as CIN3+) and cervical cancer, three years after a negative HPV screen compared to a negative smear test. This risk is more than halved.

Lead author Dr. Matejka Rebolj, Senior Epidemiologist at King's College London said: "These results are very reassuring. They build on previous research that shows that following the introduction of HPV testing for [cervical screening](#), a 5-year interval is at least as safe as the previous 3-year interval. Changing to 5-yearly screening will mean we can prevent just as many cancers as before, while allowing for fewer screens."

Almost all cervical cancers are caused by HPV infection. Usually, the [immune system](#) gets rid of the virus on its own, but if it doesn't HPV can cause abnormal cells to develop in the cervix. If these abnormal cells are not treated, they can turn into cancer. This is a process that often takes 10-15 years, and sometimes even longer.

Before 2019, cytology tests, otherwise known as smear tests, checked cervical cells for abnormalities first. If found, some of the samples would then be tested for HPV. These tests were recommended every three years. In 2019, following expert scientific evidence, the NHS Cervical Screening Program in England fully implemented primary high-

risk HPV testing using cytology as a triage test, whilst keeping the same screening intervals (3 years for those aged 24-49 years). Now samples taken during cervical screening are tested for HPV first. As having HPV infection comes before having abnormal cells, HPV testing detects more women at risk of cervical cancer.

The study shows that the HPV test is more accurate than a cytology test. Researchers from King's College London, the University of Manchester, and the NHS have analysed data from the NHS Cervical Screening Program in England. They followed those attending screening for two rounds, the first from 2013-2016 with a follow up by end of 2019.

Researchers found that people eligible for screening under fifty who had a negative HPV screen in the first round had a lower risk of detection of CIN3+ in the second round compared to cytology. 1.21 in 1000 people had a detection of CIN3+ after a negative HPV screen compared to 4.52 in 1000 people after a negative cytology.

Currently in the UK, where the HPV screen is negative, the NHS Cervical Screening Program in England invites women and people with a cervix aged 25-49 years to test every three years and people aged 50-64 years to test every five years or three years if they test positive. Scotland and Wales are the first to implement the new intervals. England has introduced HPV testing but continue to invite those eligible under fifty every three years and over fifty to test every five years. Northern Ireland currently use cytology tests but will switch to HPV primary screening in the future.

Dr. Rebolj added: "This monumental study relied on a multidisciplinary team including those in the NHS Cervical Screening Program in England, working with women undergoing screening and their samples, and our academic partners. This partnership provides evidence that will best serve the millions of women invited for screening throughout most

of their adult lives. These promising results show most [women](#) and people with a cervix do not need to be screened as frequently as they are now."

Michelle Mitchell, Cancer Research UK's [chief executive](#), said: "This large study shows that offering cervical screening using HPV testing effectively prevents cervical [cancer](#), without having to be screened as often. This builds on findings from years of research showing HPV testing is more accurate at predicting who is at risk of developing [cervical cancer](#) compared to the previous way of testing. As with any change to a screening program, this will be monitored to ensure that cervical screening is as effective as possible for all who take part.

"It's important to remember, screening is for people without symptoms. So, if you notice any unusual changes for you, do not wait for a [screening](#) invitation—speak to your doctor."

More information: Extension of cervical screening intervals with primary human papillomavirus testing: observational study of English screening pilot data, *BMJ* (2022). [DOI: 10.1136/bmj-2021-068776](https://doi.org/10.1136/bmj-2021-068776)

Provided by King's College London

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