

Longer screening intervals possible with HPV-based tests

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A new study from Karolinska Institutet in Sweden finds that testing for human papilloma virus (HPV) allows for longer time between screening tests when compared to cytology-based testing. The study is published in the scientific journal *British Medical Journal (BMJ)*.

Cervical screening programs have until recently relied on cytology to identify women at risk for developing [cervical cancer](#). However, it has long been known that testing screening with human papillomavirus (HPV) DNA tests has a higher sensitivity for [cervical intraepithelial neoplasia \(CIN\)](#), the lesion that the program intends to find since it can progress to cervical cancer if left untreated. Until now, it has been unclear whether HPV-based screening results in overdiagnosis of lesions that would not have progressed to cancer. Also, it has not been clear whether, if implemented, the screening interval could be prolonged when using HPV-based screening.

The current study is a long-term follow-up of the national [randomized controlled trial](#) Swedescreen. The trial was started in 1997 and enrolled more than 12,000 women in ages 32–38 from all over Sweden. The women were randomized to either double testing with both HPV testing and cytology, or only cytology test. At the follow-up 13 years after the start of the study, the researchers found that the increased detection rate for pre-cancerous lesions of HPV-based screening reflects earlier detection rather than over-diagnosis. The researchers also investigated the duration of the protective effect of the two [screening methods](#) by over time comparing the incidence of pre-cancerous lesions in women who had negative test results in the screening.

"The protection of HPV-based screening after five years is about the same as for cytology-based screening after three years", says Miriam Elfström at the Department of Medical Epidemiology and Biostatistics, first author of the study. "This

indicates that 5-year screening intervals could be used with HPV-based screening, instead of the current 3-year intervals".

More information: K Miriam Elfström, Vitaly Smelov, Anna L V Johansson, Carina Eklund, Pontus Nauclér, Lisen Arnheim-Dahlström, Joakim Dillner. "Long term duration of protective effect for HPV negative women: follow-up of primary HPV screening randomised controlled trial." *BMJ* 2014;348:g130, online 16 January 2014, doi: [dx.doi.org/10.1136/bmj.g130](https://doi.org/10.1136/bmj.g130)

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