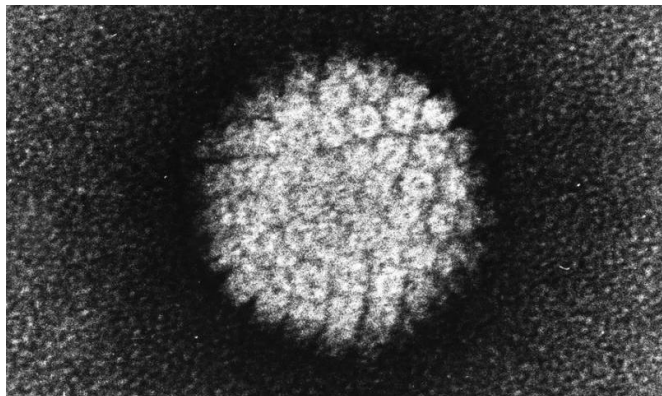


# HPV testing leads to earlier detection and treatment of cervical pre-cancer

22 June 2017



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

Women who receive human papillomavirus (HPV) testing, in addition to a pap smear, receive a faster, more complete diagnosis of possible cervical precancer, according to a study of over 450,000 women by Queen Mary University of London (QMUL) and the University of New Mexico (UNM) Comprehensive Cancer Center.

HPV is a virus that can cause cervical, vaginal, penile and anal cancers. More than 520,000 cases of cervical [cancer](#) are diagnosed worldwide each year, causing around 266,000 deaths. A common screening procedure for [cervical cancer](#) is the Pap smear, which tests for the presence of precancerous or cancerous cells on the cervix.

The study, published in *JAMA Oncology*, used data from the New Mexico HPV Pap Registry in the United States. It is the first comprehensive evaluation of HPV testing on the long-term outcomes of women who had received a borderline abnormal Pap test result.

A total of 457,317 women were included in the

study. Of these, 20,677 women (4.5 percent) received a borderline abnormal result through a Pap smear and were followed in the study for five years. Some of the women with borderline abnormal Pap smear results had an HPV test.

HPV testing led to a 15.8 percent overall increase in the detection of cervical precancers and time to detection was much shorter (a median of 103 days versus 393 days).

Virtually all cervical pre-cancers were detected in women who tested positive for HPV, suggesting HPV testing to be a good additional screening method after the Pap smear. Colposcopy, which is a medical examination of the cervix, could then be focused on women who would need it most: those with a positive HPV [test](#).

At the same time, however, HPV testing of women resulted in 56 percent more biopsies and a 20 percent increase in surgical treatment procedures performed. Most of the additional biopsies were for low grade lesions which could have regressed, indicating some overtreatment due to HPV testing.

Professor Jack Cuzick from QMUL said: "This study shows that knowing a woman's HPV status can help determine her likelihood of needing additional procedures, and prioritise immediate treatment and medical resources to the [women](#) who need them most."

Professor Cosette Wheeler from the UNM Comprehensive Cancer Center said: "The benefits of HPV testing outweigh the harms observed but it's important to understand and quantify the harms as well."

The authors warn that, as this was an observational study, the use of HPV testing was not randomised. So, it is also possible that there could be socioeconomic or other relevant differences among health care facilities that have not been measured.

**More information:** *JAMA Oncology* (2017). [DOI: 10.1001/jamaoncol.2017.1040](https://doi.org/10.1001/jamaoncol.2017.1040)

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