

# HPV vaccines 'substantially' reduce cervical cancer risk: study

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Cervical cancer, which is caused by HPV—a common sexually transmitted infection—is preventable with reliable and safe vaccines.

Cervical cancer cases plummeted among British women who received a vaccination against the human papillomavirus, according to a study

published Thursday.

In comparing cervical cancer and precancer rates before and after an HPV immunization program was introduced in England in 2008, the researchers found a "substantial reduction", especially among the youngest women to have received the jab, according to results published in *The Lancet* medical journal.

"Our study provides the first direct evidence of the effect of HPV vaccination using the bivalent Cervarix vaccine on cervical cancer incidence," the authors wrote.

The estimated risk reduction was most notable among those who had been vaccinated at the earliest possible ages of 12-13 years old, with an 87 percent drop. Those immunized between ages 16-18 saw a 34 percent dip, the study found.

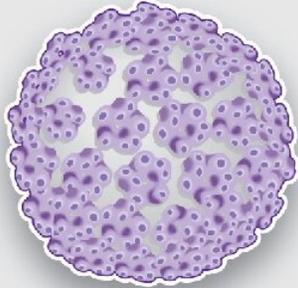
Cervical cancer, which is caused by HPV—a common sexually transmitted infection—is preventable with reliable and safe vaccines, and also curable if caught early and treated.

Last year, the World Health Organization launched a global strategy to eliminate the disease, which is one of the most common female cancers and kills hundreds of thousands annually.

## Cervical cancer

- ▶ The fourth most frequent cancer in women with an estimated 570,000 new cases in 2018
- ▶ One of the most successfully treatable forms of cancer, by surgery, radiotherapy or chemotherapy, as long as it is detected early and managed effectively

### What causes cervical cancer?



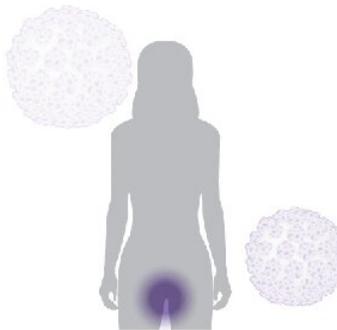
- Human papillomavirus (HPV)
- There are 100 types of HPV of which at least 13 are cancer-causing
- Two types of HPVs -- 16 and 18 -- cause 70% of cervical cancers
- HPVs are mainly transmitted through sexual contact
- Most sexually active women and men likely infected with HPV at some point in their lives
- Most infections clear up naturally through the immune system

### Risk factors

- Early sexual intercourse
- Multiple partners
- Tobacco
- Immune suppression

### Symptoms

Tend to appear after cancer has reached advanced stage



Including:

- Abnormal bleeding after sexual intercourse
- Back, leg or pelvic pain fatigue, weight loss, loss of appetite
- Vaginal discomfort, odorous discharge
- A single swollen leg

### Vaccination

- ▶ 2 vaccines: for HPV 16 and 18
- ▶ Work best if administered before sexual activity, hence the WHO recommended age group 9 - 13 year olds

### Screening

- ▶ Pap test looks for precancers, cell changes on the cervix
- ▶ Early treatment in developed countries is estimated to prevent up to 80% of cervical cancers

### Worst affected countries

Approximately 90% of more than 300,000 annual deaths from cervical cancer occur in low- and middle-income countries



Map shows where cervical cancer was the most lethal form of cancer for women in 2018

Source: WHO/CDC/NHS/MayoClinic/International Agency for Research on Cancer



Factfile on cervical cancer.

While the latest study appears to support the broad use of HPV vaccines, uptake and availability of the shots pose an issue, according to a commentary accompanying the results.

"Even in a wealthy country, such as England with [free access](#) to HPV immunization, uptake has not reached the 90% vaccination target of girls aged 15 years set by WHO," wrote gynecologists Maggie Cruickshank and Mihaela Grigore.

"Covid-19 is an additional challenge to delivering HPV vaccination but only adds to a long list, including access to affordable vaccines, infrastructure for low temperature-controlled supply chains, delivery, and [waste disposal](#)."

The authors of the study also noted several limitations, including that [cervical cancer](#) rarely appears in the age group they surveyed—individuals who today are no older than 25—even in the absence of vaccines.

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