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## Vaginal Cancer, Risk Factors, and Prevention

Learn about the risk factors for vaginal cancer and what you might be able to do to help lower your risk.

### Risk Factors

A risk factor is anything that affects your chance of getting a disease such as cancer. Learn more about the risk factors for vaginal cancer.

- [Risk Factors for Vaginal Cancer](#)
- [What Causes Vaginal Cancer?](#)

### Prevention

There's no way to completely prevent cancer. But there are things you can do that might help lower your risk. Learn more here.

- [Can Vaginal Cancer Be Prevented?](#)

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## Risk Factors for Vaginal Cancer

- [Age](#)
- [Diethylstilbestrol \(DES\)](#)

- [Vaginal adenosis](#)
- [Human papillomavirus](#)
- [Cervical cancer](#)
- [Smoking](#)
- [Alcohol](#)
- [Human immunodeficiency virus](#)
- [Vaginal irritation](#)

A risk factor is anything that affects your chance of getting a disease such as cancer. Different cancers have different risk factors. Some risk factors, like smoking, can be changed. Others, like a person's age or family history, can't be changed.

But having a risk factor, or even many, does not mean that you will get the disease. And some people who get the disease may not have any known risk factors.

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DES daughters are older than 45 – past the age of highest risk. But a woman is not safe from a DES-related cancer at any age. Doctors don't know exactly how long women remain at risk.

DES daughters have an increased risk of developing clear cell carcinomas, but women don't have to be exposed to DES for clear cell carcinoma to develop. In fact, women were diagnosed with this type of cancer before DES was invented.

DES daughters are also more likely to have high grade [cervical dysplasia \(CIN 3\)](#)<sup>1</sup> and [vaginal dysplasia \(VAIN 3\)](#)<sup>2</sup> when compared to women who were never exposed.

You can learn more in [DES Exposure: Questions and Answers](#)<sup>3</sup>.

## Vaginal adenosis

Normally, the vagina is lined by flat cells called *squamous cells*. In about 40% of women who have already started having periods, the vagina may have one or more areas lined instead by glandular cells. These cells look like those found in the glands of the cervix, the lining of the body of the uterus (the endometrium), and the lining of the fallopian tubes. These areas of glandular cells in the vagina are called *Vaginal adenosis*.

# Cervical cancer

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## Hyperlinks

1. [www.cancer.org/cancer/types/cervical-cancer/about/what-is-cervical-cancer.html](http://www.cancer.org/cancer/types/cervical-cancer/about/what-is-cervical-cancer.html)
2. [www.cancer.org/cancer/types/vaginal-cancer/about/what-is-vaginal-cancer.html](http://www.cancer.org/cancer/types/vaginal-cancer/about/what-is-vaginal-cancer.html)
3. [www.cancer.org/cancer/risk-prevention/medical-treatments/des-exposure.html](http://www.cancer.org/cancer/risk-prevention/medical-treatments/des-exposure.html)
4. [www.cancer.org/cancer/risk-prevention/hpv.html](http://www.cancer.org/cancer/risk-prevention/hpv.html)
5. [www.cancer.org/cancer/types/cervical-cancer.html](http://www.cancer.org/cancer/types/cervical-cancer.html)
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## What Causes Vaginal Cancer?

The exact cause of most vaginal cancers is not known. But scientists have found that it is linked to a number of conditions described in [Risk Factors for Vaginal Cancer](#) Research is being done to learn more about how these risk factors cause cells of the vagina to become cancer.

Research has shown that normal cells make substances called [tumor suppressor gene<sup>1</sup> products](#) to keep from growing too rapidly and becoming cancers. High-risk [HPV \(human papillomavirus\)<sup>2</sup>](#) types (like 16 and 18) produce 2 proteins (E6 and E7) that can change the way known tumor suppressor gene products work.

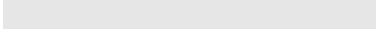
Women exposed to [diethylstilbestrol \(DES\)<sup>3</sup>](#) as a fetus (that is, their mothers took DES during pregnancy) are at increased risk for developing clear cell carcinoma. DES also increases the likelihood of vaginal adenosis (gland-type cells in the vaginal lining rather than the usual squamous cells). Most women with vaginal adenosis never develop vaginal clear cell carcinoma. Still, those with a rare type of adenosis called *atypical tuboendometrial adenosis* do have a higher risk of developing this cancer.

### Hyperlinks

1. [www.cancer.org/cancer/understanding-cancer/genes-and-cancer/oncogenes-tumor-suppressor-genes.html](http://www.cancer.org/cancer/understanding-cancer/genes-and-cancer/oncogenes-tumor-suppressor-genes.html)
  2. [www.cancer.org/cancer/risk-prevention/hpv.html](http://www.cancer.org/cancer/risk-prevention/hpv.html)
  3. [www.cancer.org/cancer/risk-prevention/medical-treatments/des-exposure.html](http://www.cancer.org/cancer/risk-prevention/medical-treatments/des-exposure.html)
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# Can Vaginal Cancer Be Prevented?

- [Avoid HPV infection](#)
- [Don't smoke](#)



## HPV vaccines

There are vaccines that protect against infection with certain types of HPV. These vaccines can only be used to prevent HPV infection – they don't help treat an existing infection. To work best, the vaccines should be given before a person is exposed to HPV (such as through sexual activity). These vaccines are approved to help prevent vaginal cancers and pre-cancers. They are also approved to help prevent others cancers, as well as anal and genital warts.

For more information about HPV and HPV vaccines, see [HPV \(Human Papillomavirus\)](#)<sup>2</sup>.

## Don't smoke

[Not smoking](#)<sup>3</sup> is another way to lower vaginal cancer risk. Women who don't smoke are also less likely to develop a number of other cancers, such as those of the lungs, mouth, throat, bladder, kidneys, and several other organs.

## Find and treat pre-cancers

Most vaginal squamous cell cancers are believed to start out as pre-cancerous changes, called [vaginal intraepithelial neoplasia or VAIN](#)<sup>4</sup>. VAIN may be present for years before turning into a true (invasive) cancer. [Screening for cervical cancer](#)<sup>5</sup> (such as with a Pap test and HPV test) can sometimes pick up these pre-cancers or problems that might lead to them forming. If a pre-cancer is found, it can be treated, stopping cancer before it really starts.

Still, since vaginal cancer and VAIN are rare, doctors seldom do other tests to look for these conditions in women who don't have symptoms or a history of pre-cancer or cancer of the cervix, vagina, or vulva.

## How VAIN might be found

Vaginal intraepithelial neoplasia (VAIN; pre-cancer of the vagina) may not be visible during a routine exam of the vagina. But it may be found with testing that's done to screen for cervical cancer. Because [cervical cancer](#)<sup>6</sup> is much more common than vaginal cancer, the HPV test and Pap test that are used for cervical cancer screening take samples from the cervix. But some cells of the vaginal lining are usually also picked up at the same time a Pap smear might be done. This allows some cases of VAIN to be found in women whose vaginal lining is not intentionally scraped. Still, the main goal of these tests is to find cervical pre-cancers and early cervical cancers, not vaginal cancer



or VAIN.

In women whose cervix has been removed by surgery to treat cervical cancer or pre-cancer, samples may be taken from the lining of the upper vagina to look for cervical cancer that has come back, and to look for early vaginal cancer or VAIN. Vaginal cancer and VAIN are more common in women who have had cervical cancer or pre-cancer.

Many women with VAIN may also have a pre-cancer of the cervix (known as *cervical intraepithelial neoplasia* or *CIN*). If abnormal cells are found, the next step is a procedure called [colposcopy](#)<sup>7</sup>, in which the cervix, the vagina, and at times the vulva are closely examined with a special instrument called a *colposcope*.

## Hyperlinks

1. [www.cancer.org/cancer/risk-prevention/hpv.html](http://www.cancer.org/cancer/risk-prevention/hpv.html)
2. [www.cancer.org/cancer/risk-prevention/hpv.html](http://www.cancer.org/cancer/risk-prevention/hpv.html)
3. [www.cancer.org/cancer/risk-prevention/tobacco.html](http://www.cancer.org/cancer/risk-prevention/tobacco.html)
4. [www.cancer.org/cancer/types/vaginal-cancer/about/what-is-vaginal-cancer.html](http://www.cancer.org/cancer/types/vaginal-cancer/about/what-is-vaginal-cancer.html)
5. [www.cancer.org/cancer/screening.html](http://www.cancer.org/cancer/screening.html)
6. [www.cancer.org/cancer/types/cervical-cancer.html](http://www.cancer.org/cancer/types/cervical-cancer.html)
7. [www.cancer.org/cancer/types/vaginal-cancer/detection-diagnosis-staging/how-diagnosed.html](http://www.cancer.org/cancer/types/vaginal-cancer/detection-diagnosis-staging/how-diagnosed.html)
8. [www.cancer.org/cancer/types/vaginal-cancer/references.html](http://www.cancer.org/cancer/types/vaginal-cancer/references.html)

## References

[See all references for Vaginal Cancer](#)Vili7 hnv0 g ET tanc4.04ast ET Qg/cancer/risk-prevention/hpv.h

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