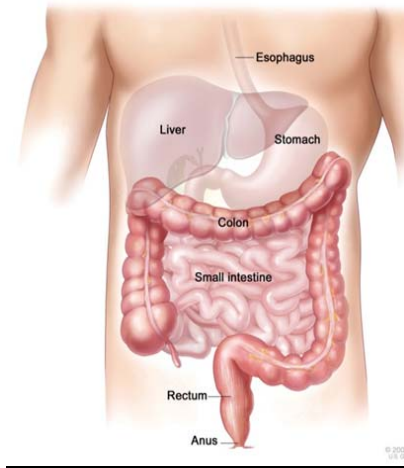


No Butts About It: Anal Dysplasia and Cancer

By: Elizabeth Stier, M.D. and Helen H. Mu

Where is the anus and anal canal?



The **anus**, also called the **anal canal**, is a short tube, about 1 ½ inches long, at the end of your rectum through which stool leaves the body.

The skin around the outside of the anus is called the **perianus**.

What is anal dysplasia?

Anal dysplasia is abnormal cells (or a lesion) in the lining (skin) of the anal canal.

Anal dysplasia can be low-grade (mild) or high-grade (moderate to severe).

Some low-grade lesions may progress (get worse) to high-grade lesions. High-grade lesions are very common. High-

grade lesions can progress to cancer. About 1/1,000 of high-grade lesions per year will progress to cancer.

Not all lesions get worse. Some can remain without changing and some may even disappear. Anal dysplasia occurs mainly in two places: inside the anal canal and in the skin of the perianus.

What causes anal dysplasia?

Anal dysplasia is caused by the **human papillomavirus (HPV)**.

What is HPV?

HPV is the most common sexually transmitted virus. Around 75-80% of sexually active people have been infected with HPV, and this is much higher in people with HIV. There are over 40 different HPV types that may infect the genital (private) area.

Oncogenic (cancer-causing) HPV, also called high-risk HPV (especially HPV 16 and 18) can cause cancers of the cervix, vagina, and vulva in women; penis cancer in men; and anal cancer and some mouth/throat cancers in men and women. Non-oncogenic HPV or low-risk HPV (most commonly HPV 6 and 11) can cause warts in the genital and anal areas. These warts are called *condyloma acuminatum*.

HPV lives only in skin cells (epithelium) and no other kinds of cells, so the only way to get it from another person is through skin-to-skin spread. That usually means contact between genital skin of one person and genital skin of another person. It is currently believed that HPV is rather easily acquired; wearing condoms is helpful in preventing HPV spread.

Most infections with HPV will go away (or clear) on their own (without any treatment) within 2 years of infection. But in some cases the infection does not go away and is then called chronic or persistent. Chronic infection with high-risk HPV may cause dysplasia and could eventually cause cancer.

People living with HIV are more likely to have an HPV infection that lasts a long time (persistent infection). This means that people living with HIV have a higher chance of

getting dysplasia or cancer compared with people without HIV.

What are the signs/symptoms?

There are no specific symptoms of anal dysplasia or cancer. The following symptoms can be from dysplasia, but can also be caused by other common conditions including anal infections, anal trauma, hemorrhoids and warts:

- Bleeding from the anus or rectum
- Feeling a lump or mass at the anal opening
- Pain or pressure in the area around the anus
- Itching or discharge (mucus or pus) from the anus
- Change in bowel habits (having more or fewer bowel movements) or increased straining during a bowel movement
- Swollen lymph nodes (glands) in the anal or groin areas

Who is at risk of getting anal cancer?

A risk factor is anything that affects your chance of getting a disease such as cancer. People at increased risk for anal dysplasia/cancer may have the following risk factors:

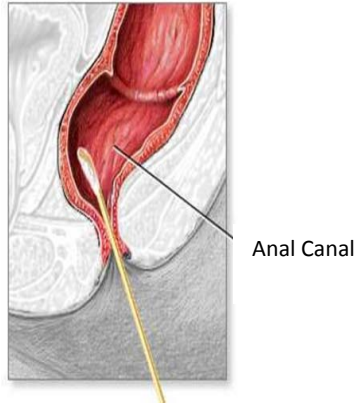
- Having many sexual partners or having sex with a partner who has had many partners
- Having receptive anal intercourse (anal sex)
- Men who have sex with men (MSM)
- HIV/AIDS infection
- History of anal warts
- History of other sexually transmitted infections
- History of fissures, fistulas and hemorrhoids
- Organ transplant recipients and other groups who have reduced immunity
- Women, particularly those with a history of cervical or vulvar dysplasia or cancer
- Being over 50 years old
- Being infected with HPV
- Smoking cigarettes

What happens during an evaluation for anal dysplasia and cancer?

-History: Your provider will ask you about how you are doing, your health habits, past illnesses and treatments.

-Digital Exam: An exam of the anus and rectum. Your provider inserts a lubricated, gloved finger into the anus and lower part of the rectum to feel for lumps or anything else that seems unusual.

-Anal Pap test (or anal cytology): A moist swab, like a Q-Tip® is passed into the anal canal and cells that come off on the swab are examined under a microscope. This procedure helps to check for abnormal cells in the anus. It takes about 10 seconds and causes minimal discomfort.



It takes about 2 weeks to get the anal Pap test results back.

Anal Pap test results:

-Benign or Normal: There are no abnormal changes in the cells and no treatment is needed. The anal Pap test should be repeated in 6 to 24 months, depending on what risk factors you have.

-Unsatisfactory or Inadequate: The specimen collected was not adequate and your provider will likely recommend a repeat anal Pap test at your next appointment.

-Atypical Squamous Cells of Unknown Significance (ASCUS): The cells are abnormal, but no definite diagnosis can be made. These are non-cancerous changes. It may be caused by inflammation or associated with dysplasia. High resolution anoscopy (HRA) is recommended.

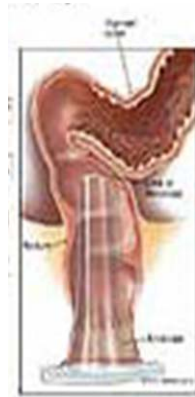
-Atypical Squamous Cells, cannot exclude High-grade lesion (ASC-H): The cells are abnormal. These are probably pre-cancerous changes. HRA is indicated.

-Low-grade Squamous Intraepithelial Lesion (LSIL): Mild dysplasia. LSIL could mean that you have anal warts or there could be pre-cancerous areas. HRA is definitely indicated, but you might not need any treatment.

-High-grade Squamous Intraepithelial Lesion (HSIL): Moderate to severe dysplasia. The cells in your anus show changes most likely caused by HPV infection. This is a sign that you probably have a pre-cancerous area in your anus. Again, this does not mean you have cancer. HRA is definitely indicated, and you may be referred for treatment.

-Squamous Carcinoma: Fortunately this is a very rare occurrence but means that the cells show severe changes that are very suspicious for a cancer. You need immediate HRA or referral to a surgeon.

-HRA with possible biopsy: The provider will use a plastic instrument called an anoscope and look at the anal canal with a special microscope called a colposcope. If an abnormal area is seen, then a very small piece of anal tissue may be removed (biopsy) and sent to a specialist (pathologist) to check for signs of cancer. Anyone with an abnormal anal Pap test should have an HRA with possible biopsy to examine the anal canal. The procedure takes about 15 minutes.



How can I protect myself against HPV infection and anal dysplasia?

-Practice safer sex—using condoms EVERY time you have sex—this will reduce the risk of getting HPV.

-Have fewer sexual partners- this will decrease the chance of getting HPV.

-Stop cigarette smoking.

-Vaccination with the HPV vaccine, Gardasil®, approved for girls and boys between the ages of 9 and 26, can help protect against infection with HPV types 6, 11, 16 and 18 in people who are not already infected with these types.

Although anal dysplasia can be treated successfully, people with HIV are at high risk of having it come back. While important to your health, HIV therapy does not protect against anal dysplasia/cancer. It is important to follow up with regular check-ups.

For more information, please contact:

<http://www.cancer.gov>
<http://www.cancer.org>
<http://www.oncolink.org>

For information about open clinical trials:

<http://www.aidscenter.org>
<http://www.analcancerinfo.ucsf.edu>
<http://www.analcancerfoundation.org>



Revised: August 3, 2011