Abnormal Pap Smears, HPV, CIN, VIN and VAIN

If you have made your way to this topic it’s probably because you have been sent to our practice for evaluation of either an abnormal pap smear or a manifestation of HPV. Congratulations! You are not alone! Each year millions of women in the United States find themselves in the same boat.

Don’t be upset or worried about having an abnormal pap smear or HPV. Nothing horrible is going to happen to you.

Below are answers to the most common questions asked by women like you who are trying to understand more about pap smears and HPV.

**Does an abnormal pap smear mean that I might have cancer?**

The short answer is, no. Pap smears were never meant to detect cancer. The Pap smear is a method to detect pre-cancerous cells. A Pap smear performed on a cervix with an obvious, easily visible cancer will often fail to show any malignant cells at all!

It really does no one any good to have a test to detect cancer. We want a test to detect the changes that precede the development of cancer so that we can administer treatment and prevent a patient from ever getting a cancer. The Pap smear is just such a test if performed properly and at yearly intervals.

Unfortunately, Pap smears are not perfect. Sometimes a smear will falsely suggest that a pre-cancerous lesion is present (false-positive result). Sometimes a smear will fail to detect a pre-cancerous lesion (false-negative). It turns out that false-positive results are fairly common. On the other hand false-negative results are rare. This means that many women will undergo evaluation for an abnormal smear when they really don’t need to do so. But it also means that if a pre-cancerous lesion really is present then the Pap smear will almost always accurately pick it up.

Pre-cancerous lesions of the cervix take many years to progress to a true malignancy. You would have to have a number of false-negative annual Pap smears in order for a cancer to develop. This is why it is so important to get a Pap smear every year.

**Tell me about the new type of Pap tests.**

As noted in the question above, the standard Pap smear has a defined false-positive and false-negative rate. These shortcomings are, to a great extent, overcome by recommending that Pap smears be performed on a regular basis. Two new Pap smear
technologies attack the problem more directly by improving the sensitivity and specificity of the test itself.

The FDA has approved the Thinprep Pap Test and the Autocyte PREP System for use in cervical cancer screening. Both technologies utilize thin layer, liquid-based methods for analyzing cells collected from the cervix.

In a standard Pap smear cells are plated directly on a glass slide where they are fixed, stained and interpreted. In liquid-based Pap smears cervical cells are collected in a vial of fluid where cellular debris, bacteria, fungi, etc are removed before being interpreted.

Both the Thinprep and Autocyte Pap smears are significantly more sensitive and specific than a standard preparation. Both are also more expensive than a standard smear and are not covered by many third party insurers.

**Do I need a Pap smear after a hysterectomy?**

If you have a history of HPV or a pre-malignant abnormality of the cervix, vagina or vulva you will still need a yearly Pap smear. Although you will obviously not be at risk of developing a pre-malignant change of the cervix after hysterectomy, you can still develop such a change in the vagina. Pap smears are very good at picking up these vaginal abnormalities.

If you have no history of HPV or a pre-malignant abnormality of the cervix, vagina or vulva then you probably do not need a yearly Pap smear. You will still need to have a yearly pelvic and rectal exam, however.

**What is HPV?**

A little, tiny virus has gotten a lot of media attention & gained quite a bit of notoriety lately. The culprit? Human Papilloma Virus (HPV)!

HPV is detected in the lower genital tract in up to 50% of all sexually active individuals. For this reason I find it difficult to consider the presence of HPV as "abnormal". I prefer to consider HPV part of the normal flora of the lower genital tract in 50% of our population.

Most of the time HPV doesn't do anything bad. Every once in awhile the virus can induce a benign skin manifestation such as a condyloma (wart). Rarely HPV can cause a pre-cancerous change of the cells that cover the cervix, vagina or vulva.

In the past, pre-cancerous changes of the lower genital tract were called “dysplasia” or “carcinoma-in-situ”. Although this terminology is still occasionally used, the proper terminology currently is “intraepithelial neoplasia”. These changes are further
subdivided by location. So we have “cervical intraepithelial neoplasia (CIN)”, “vulvar intraepithelial neoplasia (VIN)”, and “vaginal intraepithelial neoplasia (VAIN)”.

**How and when did I get it?**

HPV is most commonly spread by sexual contact. Theoretically, it could be passed by inanimate objects (your mother was correct to make you keep your own underwear on when trying on bathing suit bottoms at Robinson's!).

For many viruses we expect a predictable time between exposure and development of symptoms (latency period). For instance, when you develop a head cold you assume that you were exposed to a “head-cold” virus sometime within the previous 72 hours. A definable latency period has not been found with HPV. Years and even decades can pass between exposure to HPV and manifestation of symptoms such as condyloma or intraepithelial neoplasia. Therefore, you cannot really accurately predict when you were exposed to HPV!

I would suggest that you not waste a lot of emotional energy trying to figure out who might have exposed you to HPV. The simple fact is that you cannot know when where or even how you contracted HPV! It’s better to simply accept that you, like 50% of Americans, now have the virus. Now let’s find out what having HPV really means for you.

**It’s a hassle!**

That’s right, having HPV means an increase in the “hassle factor” in your life!

Remember, most of the time HPV does nothing. It is perfectly happy to use the metabolic machinery of the cells lining your lower genital tract to produce more copies of itself and not harm you in any way*. However, once HPV has been detected in your cervix, vulva or vagina you will need to be followed a little more carefully by your gynecologist. Sorry, but the days of a gynecologic visit once a year are probably over for you. You will, at least, need pap smears twice a year or even more frequently.

You will occasionally need treatment if your HPV manifests as a condyloma or an intraepithelial neoplasia. Unfortunately it is not possible to predict how often treatment will be needed. Some will have only one episode of CIN in their lives. Others will multiple episodes of CIN, VIN, VAIN and condyloma at frequent intervals for decades! This is why you will need evaluation more frequently than usual.

For many, HPV becomes a “chronic” problem that must be managed over time. You can be assured that, if followed appropriately, you will not all of a sudden develop a malignancy of the lower genital tract.
I’m so upset that I have a “venereal disease”!

Personally I have never liked terms like “venereal disease” or “sexually transmitted disease (STD)”. In other areas of medicine we do not customarily refer to infections by their mode of transmission. For instance, we do not refer to a viral upper respiratory tract infection as a “pulmonary transmitted disease”. We are also a little inconsistent with our application of terms like “STD”. Why is a vaginal yeast infection not referred to as a STD, for instance?

I’d prefer to think of HPV involvement of the lower genital tract as site-specific viral infections (eg, “cervical viral infection”, etc).

Think about it. If you had a viral infection of the skin of your elbow would you be especially upset about it. Probably not. More than likely you would see a Dermatologist and he/she might take a biopsy or suggest some type of treatment. You would think of a viral infection of the skin of your elbow as nothing more than a nuisance.

Why should it be different with a viral infection of the “skin” of your cervix, vagina or vulva?

Face it; you are probably concerned about your HPV not because of what it is but because of where it is.

It would be easy to see a viral infection of your elbow skin but you cannot easily inspect your vulva, vagina or cervix. You have to go to a gynecologist and have a pelvic exam just to evaluate your HPV!

Because it involves the lower genital tract you are worried about HPV’s impact on your sexual life. In reality HPV should have little impact on your sexuality (more about this later).

You might be worried about your ability to have healthy children if you have this virus in your birth canal. Don’t worry, there’s no impact on you childbearing potential (more about this later, too).

Don’t draw conclusions about HPV because of where it is located in your body. Instead, think of it as one more reason to have to drag yourself to a gynecologist several times a year. Think of it as one more indication for “body maintenance”.

Can I transmit HPV to my partner?

Sure you can.
HPV is readily transmitted sexually. If you have been having intercourse without a condom then your partner already has HPV. HPV genome could be detected from a random biopsy taken anywhere in your partner’s genital tract using a gene amplification technique such as polymerase chain reaction (PCR).

Interestingly, although it thrives in the male genital tract, HPV causes manifestations in men at a much lower rate than in women.

This is one more reason why you should insist that a new male partner use condoms. Although not a perfect method to prevent HPV transmission, it's better than nothing.

When we live closely with other people we make an unspoken agreement to share microorganisms. I know that I will kiss my little girl tonight when I get home even if she has a runny nose. I don't really care if I catch a virus from her! Bacteria, fungi and viruses are easily circulated among people who are in close physical proximity. HPV is no different.

I don't think I'm going out on a limb by suggesting that nobody really likes condoms (men or women)! When you and your partner decide that your relationship is unique and lasting maybe you might want to discuss what sharing genital tract organisms will mean to you.

**Should I tell new partners that I have HPV?**

The real question is whether we are obligated to give a new friend or sexual partner a list of every virus, fungus and bacterium known to inhabit our bodies. Seems ridiculous doesn’t it?

New sexual partners should be responsible and adult about a relationship. Condoms are a must. Your responsibility in any new sexual relationship is to make sure that both you and your partner practice “safe sex”. Insist that condoms are used the first time and every time. In my opinion neither you nor your partner are obligated to produce lists of every microorganism in your respective genital tracts!

Of course there are exceptions. Certainly, if you carry a deadly sexually transmitted disease such as HIV, a potential sexual partner has the right to know beforehand. However, HPV is not “deadly”. You can call it a “hassle” to have HPV but you certainly cannot refer to it as “deadly”.

*Most microorganisms that inhabit our bodies (and there are billions at any given time) develop a similar harmless “parasitic” relationship with us. Read “Lives of a Cell” by Lewis Thomas for more on this fascinating relationship.*