Abnormal Pap Explanation and Management

(taken form the Center for Disease Control "ASHASTD.ORG" website)

What is cervical dysplasia?

When a female goes to a clinic or her health care provider for a Pap smear, they are screening the cells on her cervix to make sure that there are no abnormal or precancerous changes. If the Pap test results show these cell changes, this is usually called cervical dysplasia. Other common terms include:

- Abnormal or precancerous cell changes
- CIN (cervical intraepithelial neoplasia)
- SIL (squamous intraepithelial lesions)
- "Warts" on the cervix

All of these terms mean similar things - it simply means that abnormalities were found. Most of the time, these cell changes are due to HPV. There are many types of HPV that can cause cervical dysplasia. Most of these types are considered "high-risk" types, which means that they have been linked with cervical cancer.

- Just because a female has cervical dysplasia, it does **not** mean she will get cervical cancer. It means that her health care provider will want to closely monitor her cervix every so often - and possibly do treatment - to prevent further cell changes that could become cancerous over time if left unchecked.
- HPV is a very common virus, and most females with HPV do not develop cervical cancer.
- Cervical cancer is a slow-growing condition that usually takes years to progress. This is why getting screened on a regular basis is important; screening can catch potential problems before progression

What about abnormal Pap test results?

The term "abnormal Pap" is broad and not very specific. There are many different systems that health care providers use to classify a Pap test. Within each system, there are different degrees of severity or abnormalities. The various classification systems and degrees of severity include:

DESCRIPTION	DEGREES OF SEVERITY	EXPLANATION
Descriptive System	Mild dysplasia, Moderate dysplasia, Severe dysplasia	
CIN System	CIN 1, CIN 2, CIN 3	CIN stands for cervical intraepithelial neoplasia
Bethesda System (2001)	ASC-US (Atypical Squamous Cells of Undetermined Significance) ASC-H (Atypical Squamous Cells-can not exclude HSIL) Low-Grade SIL (LSIL) High-Grade SIL (HSIL)	Means the results look borderline between "normal" and "abnormal" Borderline results, but may really include High-Grade lesions SIL stands for squamous intraepithelial lesion
Class System	Class 1, Class 2, Class 3, Class 4	This system is no longer widely used.

Women with abnormal Pap test results are usually examined further for cervical problems. This may involve coming back for a colposcopy and biopsy, or coming back in a few months for another Pap test. If the Pap result is "ASC-US," then a HPV-DNA test may be done in the lab to see whether HPV is causing this borderline "normal-abnormal" Pap result.

What's the difference between a Pap test, a biopsy and a HPV test?

A Pap test, or Pap smear, is a screening to find abnormal cell changes on the cervix (cervical dysplasia) before they ever have a chance to turn into cancer. During a pelvic exam, a small brush or cotton tipped applicator will be used to take a swab of cervical cells. These cells are then put either on a glass slide or in a container with liquid, and sent to the laboratory for evaluation. The most common commercially available liquid-based Pap test is called ThinPrep®, manufactured by Cytyc.

A biopsy is similar to a Pap test, but a larger cluster of cells is removed from the cervix to see if there are abnormal cell changes. It is a good way to confirm the earlier Pap smear result and to rule out cancer. If a biopsy is done, it will be performed at the same time as the colposcopy.

An HPV test is different than a Pap test or biopsy. This test checks directly for the genetic material (DNA) of HPV within cells, and can detect the types connected with cervical cancer. The test is done in a laboratory, usually with the same cell sample taken during the Pap test. The only commercially available test for HPV is called Hybrid Capture II™, produced by Digene. It is most convenient if the HPV test is done in the laboratory from a cervical cell sample that was taken using a liquid-based Pap test.

When is a HPV test used?

Currently, the HPV test called Hybrid Capture II™, is approved by the U.S. Food and Drug Administration (FDA) for use in two different situations:

(1) As a follow-up test if the Pap result is borderline between "normal" and "abnormal." This is usually called "atypical squamous cells" or "ASC-US." The HPV test is then used in the lab to determine if women with the borderline result are more likely to have precancerous changes on their cervix, (HPV positive), and which are more likely to just have normal cells (HPV negative). Basically, the test helps to rule out whether HPV is causing the borderline abnormal cells.

(2) As a cervical cancer screening test in combination with a Pap test in women at or over age 30 (rather than just having the Pap test alone). Research shows that the combination test can increase the effectiveness of detecting any problems early on. A preliminary recommendation by the American Cancer Society state that if the combination Pap - HPV DNA test (Digene's DNA with Pap™ test) result is normal/negative, then the next screening would not have to be for three years. However, if one of the tests in the DNA with Pap comes back abnormal/positive, then follow-up will be needed.

When is a HPV test NOT used?

If the Pap result shows dysplasia or precancerous changes. This is because it is automatically assumed that the HPV is the cause.

- In women under age 30, unless they have had an ASC-US Pap test result.
- The HPV test cannot be used on males. It is only FDA approved to be used on the female's cervix.

Can a male find out if he has the cell changing-types of HPV?

Research has shown that the HPV test usually shows false negative results in men. This is because it is difficult to get a good cell sample to test from the thick skin on the penis. Most people will not have visible symptoms if they are exposed to HPV. Therefore, for most, the virus is subclinical (invisible). This is especially true for males. If a male is exposed to the cell-changing types of HPV, he would be unlikely to have symptoms. If there are no symptoms for males, it is hard to test for it. Most of the time, men , unlike women, will not have any health risks such as cancer with the "high-risk" types of HPV.

How can a person get the types of HPV that cause cell changes?

- Any person who is sexually active can be exposed and get the cell-changing types of HPV.
- Most people are exposed to the cell-changing types of HPV at some point, but not everyone (especially males) will actually have abnormal cell changes (dysplasia).
- The types of HPV that cause abnormal cell changes are usually spread by direct skin-to-skin contact during vaginal, anal, or possibly through oral sex, with someone who has this infection.
- The cell-changing types of HPV are most likely to be given to a partner when dysplasia is actually present.
- Very little is known about passing subclinical (invisible) HPV to sex partners. Some experts think it may be less contagious than when the cell changes are present.
- The types of HPV that cause abnormal cell changes do not typically cause symptoms on other body parts such as the hands.
- Recent research studies have shown a relationship between a cell-changing type of HPV and some rare head and neck cancers, but there is not much evidence that oral sex definitely transmits these types of HPV.

How can someone reduce the risk of getting HPV?

Any one who is sexually active can come across this common virus. Ways to reduce the risk are:

- Not having sex with anyone.
- Having sex only with one partner who has sex only with you. People who have many sex partners are at higher risk of getting other STDs.
- If someone currently has abnormal cell changes, he or she should not have sexual activity until after the cells have been treated or have self resolved. This may help to lower the risk of transmission.
- Condoms (rubbers), used the right way from start to finish each time of having sex may help provide minimal protection - but only for the skin that is covered by the condom. Condoms do not cover all genital skin, so they don't give 100% protection.
- Spermicidal foams, creams and jellies are not proven to act against HPV, but they work against some other STDs. These are best used along with condoms, not in place of condoms.
- If someone was exposed to the types of HPV that can cause abnormal cell changes, it would be unlikely that he or she will become re-infected with those same types since immunity will be set-up at some point.
- Realize that most people are exposed to one or more HPV types in their lifetime, and most will never even know it because they will not have visible symptoms.
- It is important for partners to understand the "entire picture" about HPV so that both people can make informed decisions based on facts, not fear or misconceptions.

How are abnormal cells treated?

- Currently, there is no treatment to cure HPV; there is no cure for any virus at this point. However, there are several treatment options available for treating the abnormal cells.
- Sometimes treatment may not even be necessary for mild cervical dysplasia . These cells can heal on their own and the health care provider will just want to monitor the cervix. HPV may then be in a latent (sleeping) state, but it is unknown if it totally gone or just not detectable.
- The goal of any treatment will be to get remove the abnormal cells. This may also end up removing most of the cells with the HPV in them.
- If the abnormal cells are treated, or if they have healed on their own, it may possibly help reduce the risk of transmission to a partner who may have never been exposed to the cell-changing types of HPV.
- When choosing what treatment to use, the health care provider will consider many things:
  · location of the abnormal cells
  · size of the lesions on the cervix
  · degree or severity of the Pap smear results
  · degree or severity of the colposcopy and biopsy results
  · HPV test results (if this test was needed)
  · age and pregnancy status
  · previous treatment history
  · patient and health care provider preferences

There are a variety of treatments for cervical dysplasia:

- Cryotherapy (freezing the cells with liquid nitrogen).
- LEEP (Loop Electrosurgical Exision Procedure)
- Conization (also called cone biopsy)
- Laser (not as widely used today due to high cost, lack of availability, and not all doctors are well-trained with using it. LEEP is more commonly used)
- No treatment at all since even mild abnormal cell changes may resolve without treatment. The health care provider may just monitor the cervix by either doing a colposcopy, repeat Pap testing, or a test for HPV.