



### **WHAT IS A PAP TEST?**

A Pap test is a simple, effective screening tool looking for abnormal cells on the cervix. Developed in 1943, the original Pap test screened only for the presence of cancer cells. Now, abnormalities can be identified before actual cancer cells develop. Many abnormal cells resolve without treatment and most worsening conditions, when followed appropriately, can be treated successfully.

### **WHO SHOULD HAVE A PAP TEST?**

All women should have their first Pap test at age 21 or three years after their first intercourse, whichever comes first. Most women should repeat their Pap test annually. The Pap test may not be performed if you have your period or if you have a vaginal infection. You should not have sexual intercourse, use spermicidal jelly, vaginal medications, douches or tampons for 24 hours prior to your Pap test, as they can interfere with the accuracy of the test.

### **HOW IS A PAP TEST DONE?**

The Pap test is part of the routine gynecological exam and is quick and painless. During the exam, some cell samples are obtained from the cervix. The cervix is the visible end of the uterus (womb) and can be seen when a speculum is inserted into the vagina. A small broom or spatula and brush are used to collect cervical cells that are then placed in a liquid. The liquid is sent to a laboratory, where specially trained technicians examine the cells under a microscope.

### **HOW ARE THE RESULTS OF A PAP TEST REPORTED?**

A Pap test is reported as normal (negative) when all the cells are of a healthy size and shape. An abnormal (positive) test is reported if any cells of different sizes or shapes are found. An abnormal Pap test does not mean you have cancer. Special terminology is used to describe the degree of abnormal cells. Since 2001, the categories used are: Benign Cellular or Reactive Changes; ASC-US (atypical squamous cells of undetermined significance); ASC-H (atypical squamous cells, cannot exclude high-grade), Low Grade SIL (low grade squamous intraepithelial lesion – often referred to as mild dysplasia), High Grade SIL (high grade squamous intraepithelial lesion - often referred to as moderate or severe dysplasia) and AGC (atypical glandular cells).

### **WHAT CAUSES AN ABNORMAL PAP TEST?**

The presence of an infection such as yeast, bacterial vaginosis, trichomonas, chlamydia or gonorrhea may cause cervical cells to appear inflamed, resulting in the finding described as benign cellular or reactive changes. Treatment will be prescribed if necessary. The Pap test should be repeated in one year. Inflammation without infection does not require treatment.

Dysplasia is caused by the human papilloma virus (HPV). HPV is sexually transmitted. It has been discovered that approximately 60% of sexually active college students acquire HPV at some point during college. HPV can cause genital warts, but fewer than 5% of women who are infected with the HPV will actually develop genital warts. The HPV can penetrate the cells of the cervix even if a woman has never had genital warts. The virus causes abnormal cell development on the cervix called dysplasia. Recent studies show that HPV can spontaneously disappear with time. Dysplasia can also spontaneously resolve with time. Smoking has been associated with an increased risk of the progression of dysplasia to cervical carcinoma.

The abnormal cell changes found on the surface of the cervix (or dysplasia) occur in three stages, mild, moderate, and severe. By definition, mild dysplasia involves only 25% of the thickness of the cell layer overlying the cervix. Moderate dysplasia involves 50% of the cell layer. Severe dysplasia is diagnosed when almost the full thickness of the surface cell layer is involved.

Cancerous cells are the most severe of the abnormal cells found on Pap tests. Carcinoma in situ involves the full thickness of the surface cells of the cervix. Invasive cancer of the cervix means that the disease has progressed beyond the surface layer of cells. Although the risk of cervical cancer in college-age women is less than for women over 35, it is a risk that does exist.

### **HOW IS AN ABNORMAL PAP TEST FOLLOWED UP?**

Follow up depends on the degree of cell changes described by the technician and the age of the women. Women under age 21 with Pap results reporting ASC-US and Low Grade SIL need to repeat their Pap tests in one year. In women 21 and over, Pap tests that indicate ASC-US undergo further analysis for the type of HPV DNA that causes dysplasia called high risk HPV. The result of the additional DNA test determines whether an immediate colposcopy or a repeat Pap test in one year is recommended. Women 21 and over with Low Grade SIL should be evaluated with colposcopy. Pap test with ASC-H, High Grade SIL, and AGC at any age should always be followed up with colposcopy.

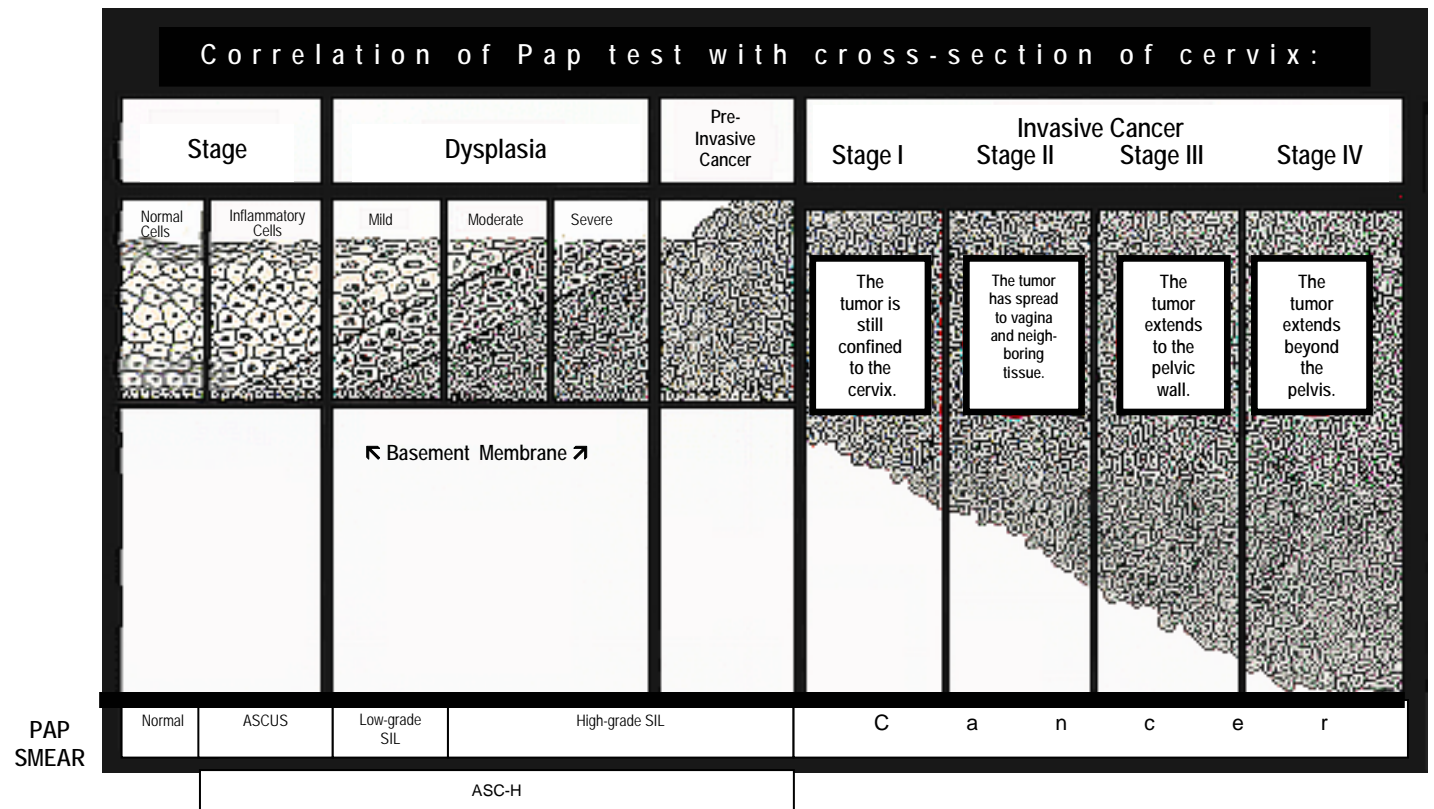
### **WHAT IS COLPOSCOPY?**

A colposcope is very similar to a microscope and allows doctors to examine the external genital area (vulva), vagina, and cervix with magnification, so that abnormal cells may be more easily identified.

During the colposcopy, the patient is in a similar position as for a Pap test and a speculum is inserted. The doctor may apply a vinegar solution that makes the abnormal cells easier to see. The colposcope itself does not touch the patient. Colposcopy usually should not be performed during your period. You should try to avoid having intercourse, using spermicidal jelly, vaginal medication, douches or tampons for 24 hours prior to the colposcopy, as they can interfere with the accuracy of the test.

**WHAT IF ABNORMAL CELLS ARE FOUND DURING THE COLPOSCOPY?**

If abnormal cells are found, the physician may do a biopsy. A biopsy is the removal of a small sample of tissue from the abnormal area. The woman may feel a sharp pinch for a few seconds, and possibly some slight menstrual-like cramps (some women don't feel anything). There may be light vaginal bleeding or spotting for several days following a biopsy. The tissue sample is sent to a laboratory where a pathologist will examine it. Ibuprofen, three over-the-counter tablets (or 600 mg.), taken one hour before the exam, will minimize any discomfort.



**WHAT TREATMENT CAN BE DONE IF THE BIOPSY SHOWS SOMETHING WRONG?**

The doctor will recommend management based on the pathologist's report. Observation with a high risk HPV test, or repeat Pap tests and/or colposcopy are excellent options for many women with mild and sometimes moderate disease. When indicated, several treatment modalities are available. An office procedure called LEEP (Loop Electrosurgical Excision Procedure) is most often recommended.

**References**

Wright, T.C., et al. 2006 Consensus guidelines for the management of women with cervical intraepithelial neoplasia or adenocarcinoma in situ. *Am J Obstet Gynecol* 197 (4): 340-345, 2007.  
 Wright, T.C., et al. 2006 Consensus guidelines for the management of women with abnormal cervical cancer screening tests. *Am J Obstet Gynecol* 197 (4): 346-355, 2007.  
 Ho, G.Y., et al. Natural History of Cervicovaginal Papilloma Virus Infection in Young Women. *New England Journal of Medicine* 338 (7): 423-428, 1998

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: **Dial-A-Nurse at 333-2700.**

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

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