



Preventive medicine series: Pap smears

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There is clear and substantial evidence that Pap smears decrease the incidence of cervical cancer as well as the death rate from the disease.

Cervical cancer is common among women worldwide. The incidence of its mortality varies by how high or low the screening rate is. In the U.S. where the pap smear rate is relatively high, there are less cases of cervical cancer compared to developing countries where the screening is not as readily available.

More than half of women who acquire cervical cancer have not had the appropriate screening (1). Moreover, of those women diagnosed with invasive cancer of the cervix, over half have never had a Pap test (2).

A thorough conversation about cervical cancer cannot be had without discussion about the human papilloma virus (HPV), of which is the most common cause. However, not all women with HPV infection develop cervical cancer.

There are about 40 types of HPV which infect the genital tract. Types 16 and 18 are most commonly the cause of cervical cancer. These types and others are covered in the HPV vaccines such as Gardasil and Cervarix. (See my previous article, Preventive medicine series: The HPV vaccine @ <http://www.riverbender.com/articles/details/preventive-medicine-series-the-hpv-vaccine-6426.cfm>)

Risk factors for cervical cancer align with those that also increase the risk of exposure to HPV. Thus, early onset of sexual activity, multiple sexual partners, and high-risk sexual behaviors are each risk factors. Cigarette smoking is also included.

A pap smear and pelvic exam is usually accompanied by a breast exam, where the provider checks for any suspicious lumps or nodes in the axillary (armpit) regions.

On the pelvic exam, the provider will examine the outer vaginal region for any areas of suspicion, for discharge. A speculum is gently inserted into the vagina to visualize its walls, then look at the cervix.

There are varying sizes of speculums from which the providers chooses based on bod



y size and other factors. Older speculums were metal and sterilized between uses. In modern times, we use plastic disposable ones. Some even have a light directly attached, avoiding the need for shining a lamp to the area which makes it much easier for the examining clinician.



Once the cervix is adequately visualized, the provider then uses a cytobrush to scrape the cervix at its center. This collects some cells which are later examined by a pathologist for abnormalities. If need be, the provider can also obtain cultures if there is concerning discharge.

After the pap smear the provider will often do a bimanual examination, whereby the uterus and ovaries are palpated for abnormalities and tenderness.

In 2012 the American Congress of Obstetricians and Gynecologists (also known as ACOG) published a new set of guidelines on when and who to screen for cervical cancer. Their recommendations are to begin pap smears at the age of 21. Though a pelvic exam may still be needed, a pap smear is usually only done every three years. At the age of 30, until 64, a pap smear combined with a HPV test is recommended every five years. These recommendations change however, if there is a history of abnormal pap smear or family history of cervical cancer.

After the age of 64, if there have been two negative Pap/HPV cotests or three negative paps, then usually no more of these exams are warranted. If a woman has had a hysterectomy for non-cancerous reasons, pap smears may end there as well.

The typical well woman exam including a breast, pap and pelvic exam takes no more than 15 minutes. It is a very short visit that reaches far in prevention.

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The health information provided herein is not intended to replace the advice or discussion with a healthcare provider and is for educational purposes only. Before making any decisions regarding your health, speak with your healthcare provider.

REFERENCES:

1. Abed Z, O'Leary M, Hand K, et al. Cervical screening history in patients with early stage carcinoma of the cervix. *Ir Med J* 2006; 99:140.
2. Janerich DT, Hadjimichael O, Schwartz PE, et al. The screening histories of women with invasive cervical cancer, Connecticut. *Am J Public Health* 1995; 85:791.