Caring For the Patient with Cervical Cancer: Educating Ourselves

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Disclosures

- No financial disclosures

About this presentation

This presentation is intended to educate women and their advocates take an active role in their health care.

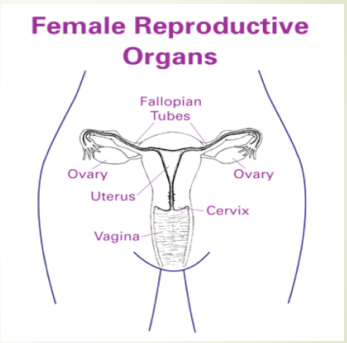
Cervical Cancer Statistics

- Fifty years ago, cervical cancer was the leading cause of cancer death in American women
- Cervical cancer is the number one cause of cancer deaths in developing countries
- Worldwide:
  - 528,000 new cases of cervical cancer/year
  - 330,000 deaths from cervical cancer/year

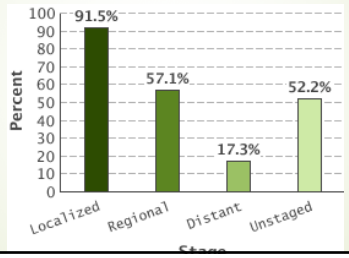
Cervical Cancer in the US

- **Today, cervical cancer is the 21st most common cause of cancer death in America**
- **There are 13,000 new cases a year**
- **4,000 women die each year of cervical cancer**

The Cervix



5 Year Relative Survival Rate of Cervical Cancer



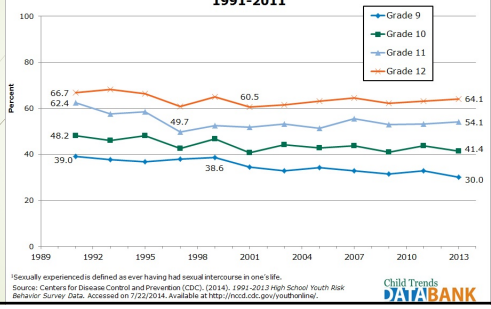
Risk Factors for Cervical Cancer

- **HPV Infection**

- Not having regular Pap tests
- Early age of sexual intercourse
- Having multiple sexual partners
- Smoking
- Having a high risk male partner
- Having other sexually transmitted diseases
- HIV infection

Figure 2

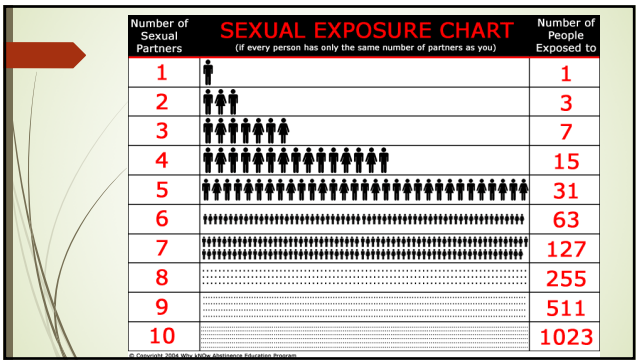
Percentage of Students in Grades 9 through 12 Who Report Ever Having Had Sexual Intercourse,[1] by Grade, 1991-2011



[1]Sexually experienced is defined as ever having had sexual intercourse in one's life.

Source: Centers for Disease Control and Prevention (CDC). (2014). *1991-2013 High School Youth Risk Behavior Survey Data*. Accessed on 7/22/2014. Available at http://nccd.cdc.gov/youthonline/.

Child Trends DATABANK



Development of Cervical Cancer

- Cervical cancer usually develops slowly over time
- The cells of the cervix go through changes known as dysplasia
- Dysplasia is where abnormal cells begin to appear in the cervical tissue
- Over time, the abnormal cells may become cancer/malignant cells and start to grow and spread more deeply into the cervix and to surrounding areas.

Cervical Cancer is Caused by a Virus

- Cervical cancer is caused by a virus, called HPV.
- HPV stands for Human Papillomavirus.
- HPV is very common. About eight out of ten women will get HPV by the time they are 50 years old.
- Most HPV infections clear up on their own. Your body's immune system fights off the virus without you ever being aware that you have the infection.

What is HPV?

- There are more than 115 different kinds of HPV
- Some cause genital warts
- Some invade the cervix
- The cervical HPV types, called **high risk,** are the ones that can cause cervical cancer.

- HPV can stay in the body over a long period of time and can cause changes the cervix
- These cervix changes can take a long time, usually more than one year to up to ten years.
- When these changes are small, they can be removed before any serious problems start.
- If the changes are not treated, they can grow and may become cancer.

A Pap test shows these changes

What are the Symptoms of HPV?

- In the early stages of infection, HPV usually ***does not have any signs or symptoms.***
- When symptoms do show up, it has most likely already grown into invasive cancer.
- The only way to tell if you have the early stages of HPV infection is Pap tests/HPV typing
- Early changes can be treated before they turn into cancer.

Pap Tests and HPV typing

- A **Pap test** is used to find cell changes or abnormal cells in the cervix. The Pap test is a very good test for finding cancer cells and cells that might become cancer.
- Human papilloma virus (HPV) can cause cervix cell changes. The **HPV test** checks for the virus, not cell changes. The test can be done at the same time as the Pap test, with the same swab or a second swab

Heroes of the Decade

Captain C. B. Sullenberger

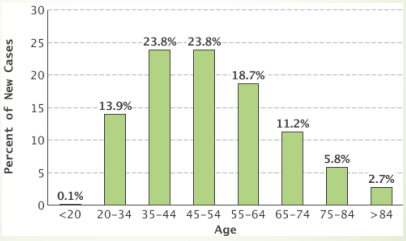
Hero of the Century: Dr. George Papanicolau

Saving millions of lives of women around the world by early detection of cancer of the cervix

Next Hero…

2008 Nobel Prize for Medicine went to
Harald zur Hausen from Germany
"For his discovery of human papilloma viruses causing cervical cancer"

New Cases Of Cervical Cancer in the US by Age



Cervical Screening Recommendations

- Women should not be screened before age 21
- Women 21-29 should be screened with the Pap test alone every 3 years. HPV testing should not be used for screening in this age group
- For women 30 and over, the preferred approach is the Pap test plus HPV testing every 5 year
- Screening is not recommended for women over age 65 who have had at least 3 consecutive Pap tests or at least 2 negative HPV test the last 10 years, with the most recent test in the last 5 years

HPV in Pregnancy

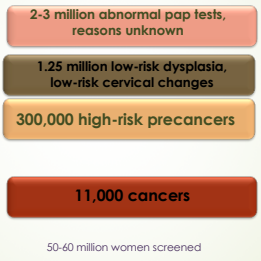
- The types of HPV that can cause cervical cancer have not been found to cause problems for babies.
- You can get pregnant if you have an HPV infection.
- Treatment for an abnormal Pap result during pregnancy may be deferred until you are no longer pregnant.

The bad news is there are women who are not being screened for cervical cancer

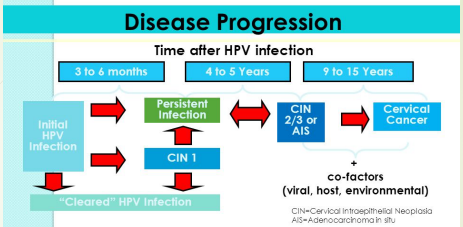
1/10 women aged 1-65 have not been screened in the past 5 years

1/ 4 have no health insurance or PCP

Abnormal Pap Tests



Disease Progression



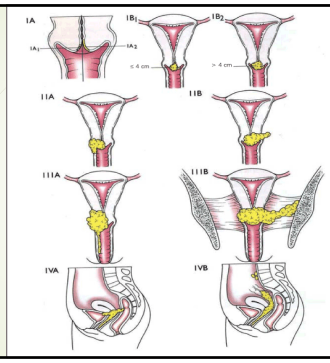
- The HPV detected today could have been acquired years ago
- Many women diagnosed with cervical cancer were likely exposed to HPV during their **teens** and **20s**

ACOG guidelines reflect these age-based recommendations for cervical cancer screening

Age	Pap†	High-risk HPV	HPV genotyping
Under 21	Not recommended	Not recommended	Not recommended
21 - 29	Recommended every 3 years	Recommended to be used as a *"reflex test"* only when Pap result is ASC-US	Not recommended
30 - 65	Recommended co-testing (using Pap and HPV concurrently) every 5 years (preferred), or cytology alone every 3 years		Option to use as *"reflex test"* in co-tested patients whose Pap is negative and HPV result is positive
Over 65	Screening should be discontinued if patient has had adequate negative prior screening results‡ and no history of CIN2+ Recommend continuing age-based screening for ≥20 years in those patients with a history of CIN2, CIN3, or adenocarcinoma *in situ*		

Symptoms of Cervical Cancer

- Malodorous discharge from the vagina
- Abnormal vaginal bleeding
- Dysuria
- Bleeding or pain during intercourse



Staging of Cervical Cancer

FIGO Clinical Staging

- Pelvic exam
  Exam under anesthesia
- Cystoscopy
  Proctoscopy
- Chest X-ray

Treatment Modalities for Cervical Cancer

Surgery:

Radical hysterectomy with lymph node dissection

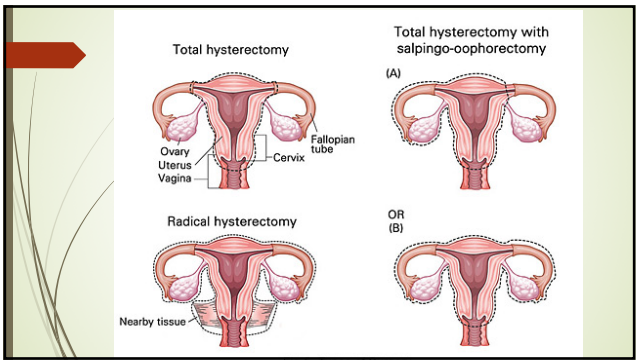
Radical trachelectomy for tumors up to 2 cm

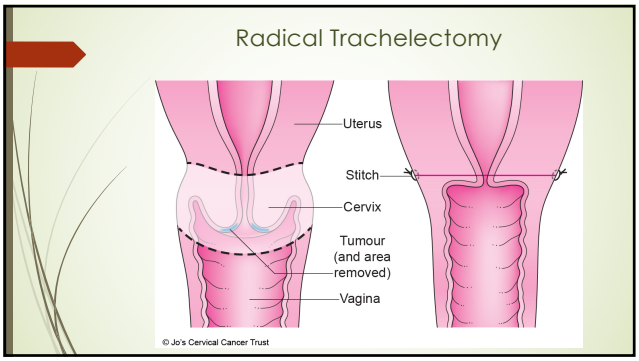
Chemo- Radiation Therapy , concommitant

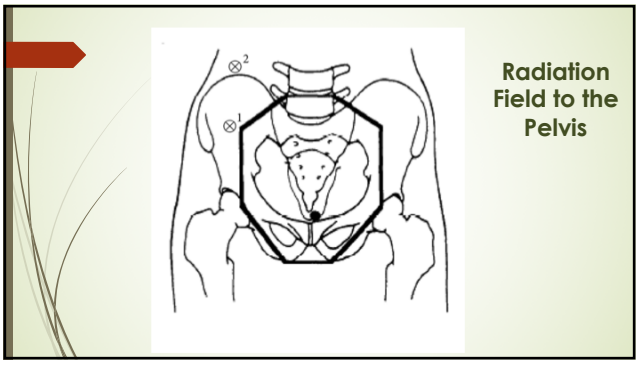
Palliative Chemotherapy

Biologic response modifiers

Immunotherapy


Total hysterectomy
Ovary
Uterus
Vagina
Cervix
Fallopian tube
Radical hysterectomy
Nearby tissue
Total hysterectomy with salpingo-oophorectomy
(A)
OR
(B)


Radical Trachelectomy
Uterus
Stitch
Cervix
Tumour (and area removed)
Vagina
© Jo's Cervical Cancer Trust


Radiation Field to the Pelvis

Chemotherapy

How about Prevention

HPV Vaccines

- Cevarix
  Bivalent protects against HPV 16 &18
- Gardasil 4
  Quadravalent, protects against HPV 6, 11, 16 &18
- Gardasil 9
  9-valent, protects against HPV 6, 11, 16, 18 and 31, 33, 45, 52, 58

Covered Under: Affordable Care Act
Vaccines for Children Program
Medicaid
Private Insurances

Table 3. HPV Vaccines Available in the U.S.

	Bivalent	4-Valent	9-Valent
HPV types	16, 18	6, 11, 16, 18	6, 11, 16, 18, 31, 33, 45, 52, 58
Approved indication	Prevention of cervical cancer and precancer in females aged 10-25 years	Prevention of cervical, vaginal, vulvar, anal cancers and genital warts in females aged 9-26 years Prevention of genital warts and anal cancer in males aged 9-26 years	Prevention of cervical, vaginal, vulvar, anal cancers and genital warts in females aged 9-26 years Prevention of genital warts and anal cancer in males aged 9-15 years
2016 ACIP recommendations	*Females:* any of 3 vaccines recommended as routine starting age 11-12 years in a 2-dose series and age 13-26 years as catch-up *Males:* 4-valent and 9-valent vaccines recommended as routine vaccination starting age 11-12 years in a 2-dose series and age 13-21 years as catch-up (up to 26 if HIV-positive or MSM) First dose may be given at age 9 years if history of sexual abuse or assault		
Schedule	If first dose is given at age 14 years or younger, 2 doses should be given over at least 6 months: 2nd dose administered 6-12 months after 1st dose If first dose given at age 15 years or older, 3 doses given over at least 24 weeks at 0, 1-2, 6 months • Minimum interval between Dose 1 and 2 is 4 weeks • Minimum interval between Dose 2 and 3 is 12 weeks • Minimum interval between Dose 1 and 3 is 24 weeks		
Side effects	Injection-site reactions, syncope (rare)		

ACIP: Advisory Committee on Immunization Practices; HPV: human papillomavirus; MSM: men who have sex with men.
Source: References 33, 41-43.

Common Side Effects of HPV Vaccination

- Pain, redness, or swelling in the arm where the shot was given
- Fever
- Headache or feeling tired
- Nausea
- Muscle or joint pain

Why Vaccinate

- HPV vaccines actually **prevent** cancers
- Vaccines have the potential to reduce cervical cancer deaths around the world by as much as two-thirds, if all women get vaccinated
- Vaccines can reduce the need and cost for medical care, biopsies and invasive procedures associated with the follow-up of abnormal cytology tests
- Vaccinations can provide a reduction in patient anxiety related to abnormal cytology tests

To Help Prevent Cervical Cancer

- **Vaccinate early**
- **ACOG guideline Pap tests & HPV testing**
- **Use condoms to help prevent HPV**

Key Points

- Cervical cancer is a disease in which malignant (cancer) cells form in the tissues of the cervix.
- Human papillomavirus (HPV) infection is the major risk factor for cervical cancer.
- There are usually no signs or symptoms of early cervical cancer but it can be detected early with screening tests and exams
- Signs and symptoms of cervical cancer include vaginal bleeding and pelvic pain.
- Tests that examine the cervix are used to detect (find) and diagnose cervical cancer.
- Certain factors affect prognosis (chance of recovery) and treatment options.