

Cervical Cancer: What Can I Do To Help??

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Objective

- Discuss the warning signs of cervical cancer and our role in prevention.

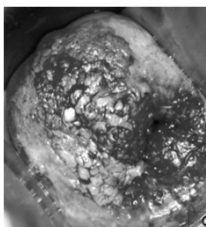
UNDERSTAND The Problem

Cervical Cancer Incidence and Mortality

- Worldwide¹
 - Over 500,000 new case
 - 311,000 deaths
 - Fourth most common cancer in individuals
- In US²
 - Estimated 14,480 new cases
 - 4,290 deaths
 - 7.5 new cases annually per 100,000 women
 - Ranks 15th in incidence and mortality

1. https://www.who.int/health-topics/cervical-cancer#tab=tab_1
2. American Cancer Society, *Cancer Facts and Figures*, 2021, p 10.

Cervical Cancer Incidence and Mortality



- In Alabama
 - Estimated 238 new cases
 - 9.6 new cases annually per 100,000 women
 - **Ranks 3rd in nation for highest rate of new cervical cancers**

<https://gis.cdc.gov/Cancer/USCS/DataViz.html>



We do
NOT
want to
be
#1



SCREEN The Patients

Goal: To prevent morbidity and mortality

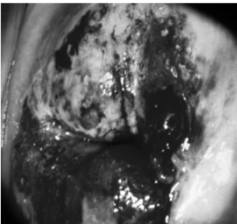
Who gets cervical cancer	
Never screened	50%
>5 yrs since screened	10%

60%

Subramaniam, A., Fauci, J. M., Schneider, K. E., Whitworth, J. M., Erickson, B. K., Kim, K., & Huh, W. K. (2011). Invasive cervical cancer and screening: what are the rates of unscreened and underscreened women in the modern era? *Journal of lower genital tract disease*, 15(2), 110–113. <https://doi.org/10.1097/LGT.0b013e3181f515a2>

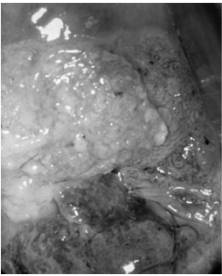
Symptoms of cervical cancer

- Postmenopausal bleeding - 46%
- Abnormal uterine bleeding - 20%
- Postcoital bleeding - 10%
- Vaginal discharge - 9%
- Pain - 6%



<https://www.asccp.org/Default.aspx>

Possible Clinical Findings




- Large, firm or barrel-shaped cervix by palpation
- Neoplasm
- Nodularity
- Ulceration/Leukoplakia
- Necrosis
- Friable

<https://www.asccp.org/Default.aspx>

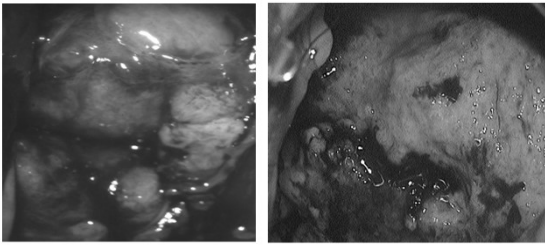
Leukoplakia

- 29 yo, G4P1
- Hx:
 - 7/27/2020 LSIL Pos
 - 3/2017 pap NIL
 - 7/2015 LOOP-severe dysplasia, pos margins
 - 7/2015 Colposcopy
 - HSIL CIN 2/3
 - 6/2015 pap HSIL

Appearance upon speculum insertion

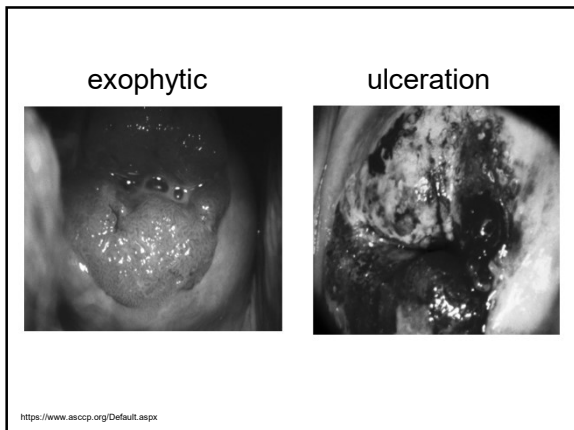


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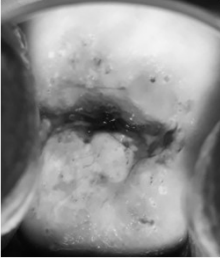
Tan, gray - necrosis **Red - friable**

<https://www.asccp.org/Default.aspx>



Why are warning signs important?

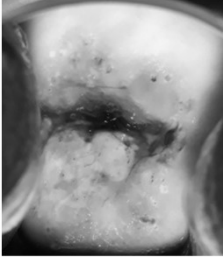
- **Early cervical cancer can be subtle**



- 35 yo, G3P2
- Hx ABN paps in past, unsure results
- Last pap 10 years ago
- Current pap LSIL/pos
- Reports post-coital bleeding with every sexual encounter x 6 months

Why are warning signs important?

- **Early cervical cancer can be subtle**



- Colposcopy Pathology:
 - ECC – Benign
 - Cervical Bx – HSIL, CIN 2
- Leep Pathology: Superficially invasive squamous cell carcinoma, extent of invasion is difficult to assess
- Plan: Hysterectomy April 4th

How to prevent missing cervical cancer

Be aware of risk for cancer, even when not expected!!

- The most common cytology finding preceding a diagnosis of cancer is ASC-US
- Beware of repeat inflammatory cytology with no explanation
- Beware of consecutive unsatisfactory cytology

<https://www.asccp.org/Default.aspx>

How to prevent missing cervical cancer

Ensure adequate follow-up

- Cervical cancer may be missed due to inadequate follow-up, especially when cytology, colposcopy, and pathology do not correlate – “Discrepant Results”

<https://www.asccp.org/Default.aspx>

How to prevent missing cervical cancer

Use all available information

- HPI and Presenting symptoms
- Colposcopic exam
- Presenting Pap
- Careful bimanual and rectovaginal exam
 - Be gentle: cervix may be fragile

RECOGNIZE The Cause

The facts of life

- 50% of adolescents over age 15 report being sexually active
- Many adolescent virgins have had genital contact
- The majority of adolescents with an STD do not realize they are infected so they take no action to protect their partner

1. Bearman and Bruckner National Campaign to prevent teen pregnancy (1999);
2. Holmes, et al. Sexually Transmitted Diseases (1999) McGraw Hill;
3. Laumann, et al. STD. 1999;26:250-61. 4. Bearman, et al. Pairs: Adolescent relationship dynamics (2001).

The facts of life

- Adolescents have short term sexual relationships (avg. 15 months) and many are very short term (< 4 months)
- Most sex in adolescent relationships begins in the first two months



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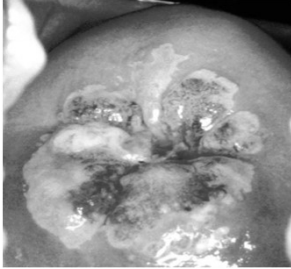
HPV transmission

- **SKIN contact**
- **Sexual**
 - Intercourse (vaginal or anal)
 - Outercourse (genital, non-penetrative contact, touching with hands)
 - Oral sex is more common than vaginal sex in adolescents
 - 23% of virgin adolescents have had oral sex
 - 15.3% of virgins acquired HPV infections prior to initiating sexual intercourse

Lindberg et al. J Adolesc Health. 2008;43(3):231-238.

HPV Infection

- HPV is very common
- 80% of individuals will be infected at some time in their lives
- Most common in young females aged 15-25




www.cdc.gov/HPV

HPV Infection

	Prevalence	HPV (+)
Squamous	75% (falling)	>95%
Adenocarcinoma	25% (rising)	>95%

***Cervical changes (HSIL) result from persistent HPV infections



https://www.asccp.org/Default.aspx

Decreases in CIN and genital warts are already being seen since HPV vaccination began in 2006

<https://www.cancer.gov/about-cancer/causes-prevention/risk/infectious-agents/hpv-vaccine-fact-sheet>

Assess The HPV Vaccination Status

Top five reasons parents gave for not vaccinating their adolescents

Parents of Females

Reason	%	(95% CI*)	Parents of Males	
			%	(95% CI)
Lack of knowledge	15.5	(13.0-18.5)		
Not needed or necessary	14.7	(12.5-17.3)		
Safety concerns/Side effects	14.2	(11.8-16.8)	Not recommended	22.8 (20.6-25.0)
Not recommended	13.0	(10.8-15.5)	Not needed or necessary	17.9 (15.9-20.1)
Not sexually active	11.3	(9.1-13.9)	Lack of knowledge	15.5 (13.7-17.6)
			Not sexually active	7.7 (6.4-9.2)
			Safety concerns/Side effects	6.9 (5.6-8.5)

MMWR Morb Mortal Wkly Rep. 2014 July 25; (63):29

Percentages Receiving HPV Vaccine

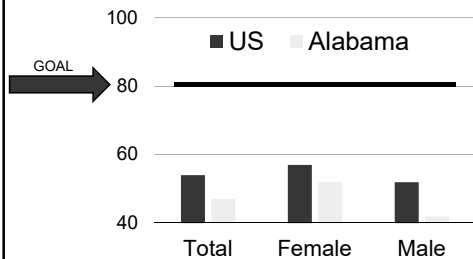
United States

Alabama

	At Least 1 dose	UTD		At Least 1 dose	UTD
Females	73%	57%	Females	69%	52%
Males	70%	52%	Males	61%	42%
Total	71%	54%	Total	65%	47%

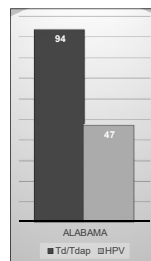
<https://www.cdc.gov/vaccines/imz-managers/coverage/teenavxview/data-reports/hpv/dashboard/2019.html>

Healthy People 2020 Goal: 80% Series Completion



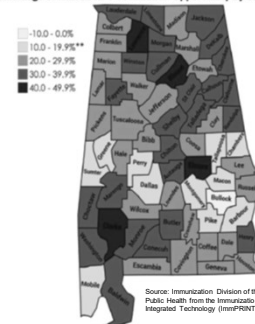
https://www.cdc.gov/nchs/healthy_people/index.htm

% Receiving Vaccine



<https://www.cdc.gov/vaccines/imz-managers/coverage/teenavxview/data-reports/hpv/dashboard/2019.html>

Percentage of Missed HPV Vaccination Opportunity by County*, 11-15 (2019)



Source: Immunization Division of the Alabama Department of Public Health from the Immunization Patient Resources with Integrated Technology (ImmPRINT) Registry

*Percentage calculated for each county by subtracting HPV vaccination uptake rate from Tdap vaccination rate

**No counties fell within the 0.0-9.9% range

- **Alabama is 41st for HPV vaccination initiation**
- **Alabama is 42nd for HPV vaccination completion**

Source: NIS-Teen 2019

OFFER The Vaccine

Who can get the HPV vaccine?

- Males and Females
- Ages 11-45 years old
- Available to ALL PATIENTS
- Available in ALL COUNTIES/CLINICS
- Insured or uninsured (VFC should be used when eligible)
- No cost to patient
- Clinics may complete field voucher to be reimbursed for \$8.00 administration fee

Vaccine Counseling

This is a vaccine that prevents cancer

- We must realize the impact our recommendation has when it comes to patients electing to receive a vaccine
- Offer the HPV vaccine when scheduled for other vaccines, the same way you recommend all other vaccines
- Be prepared to answer question in a nonjudgmental manner
- Providing personal examples shows you believe in the importance of the HPV vaccine

Vaccine Counseling

This is a vaccine that prevents cancer

Put risk by disease in perspective

Deaths from:

- Meningococcal pneumonia/year – 150
- Pertussis – 20
- Tetanus – 4
- Diphtheria - 0
- HPV related cancers - >4000

20 times more likely to die of HPV related cancer than other 4 diseases together

www.cdc.gov

Vaccine Counseling

This is a vaccine that prevents cancer

Number of Cancer Cases Attributed to HPV per year

Cancer Site	# of HPV associated Cancers	% probably caused by any HPV type	# probably caused by any HPV type	Male	Female
Cervix	12,143	91%	11,000	NA	11,000
Vagina	867	75%	700	NA	700
Vulva	4,114	69%	2,800	NA	2,800
Penis	1,348	63%	900	900	NA
Anus	7,083	91%	6,500	2,100	4,400
Oropharynx	19,755	70%	14,000	11,800	2,200
Total	45,330	79%	35,900	14,800	21,100

<https://www.cdc.gov/cancer/hpv/statistics/cases.htm>

Vaccine Counseling

This is a vaccine that prevents cancer

HPV vaccination by 11-12 could **prevent over 90%** of these cancers

www.cdc.gov/HPV

Vaccine Counseling

This is a vaccine that prevents cancer

Studied worldwide

- No serious safety concerns
- As more people are vaccinated earlier, the greater the impact.
- Benefits outweigh the risk
- Does not increase promiscuity

www.cdc.gov/HPV

Sample Script FP or STD Visit

I see that you have not started/completed the HPV vaccine. Getting vaccinated against HPV is easy and we can do that today while you are here for your visit! In the United States each year, HPV causes over 30,000 cases of cancer. The good news is the HVP vaccine is a safe and effective way to prevent those cancers. The best protection against these cancers is prevention, is this something you would like to do today?

Sample Script Immunization Visit

Now that (Patient Name) is 11, she's due today for 3 very important vaccines. The first is to help prevent an infection that causes meningitis, which is rare but potentially deadly. The second is to prevent a very common infection HPV that can cause several kinds of cancer. The third is the tetanus booster which also protects against whooping cough. Do you have any questions for me?

Take Home Points!!

This is a vaccine that prevents cancer

- Assess HPV vaccination status at each visit
- Provide information in plain, understandable language
- ***Key point – protects against a virus that causes cancer
- ***Avoid – “virus spread by having sex”
- ***Remember – vaccination rates increase when recommended by a health care provider

Take Home Points!!

This is a vaccine that prevents cancer