

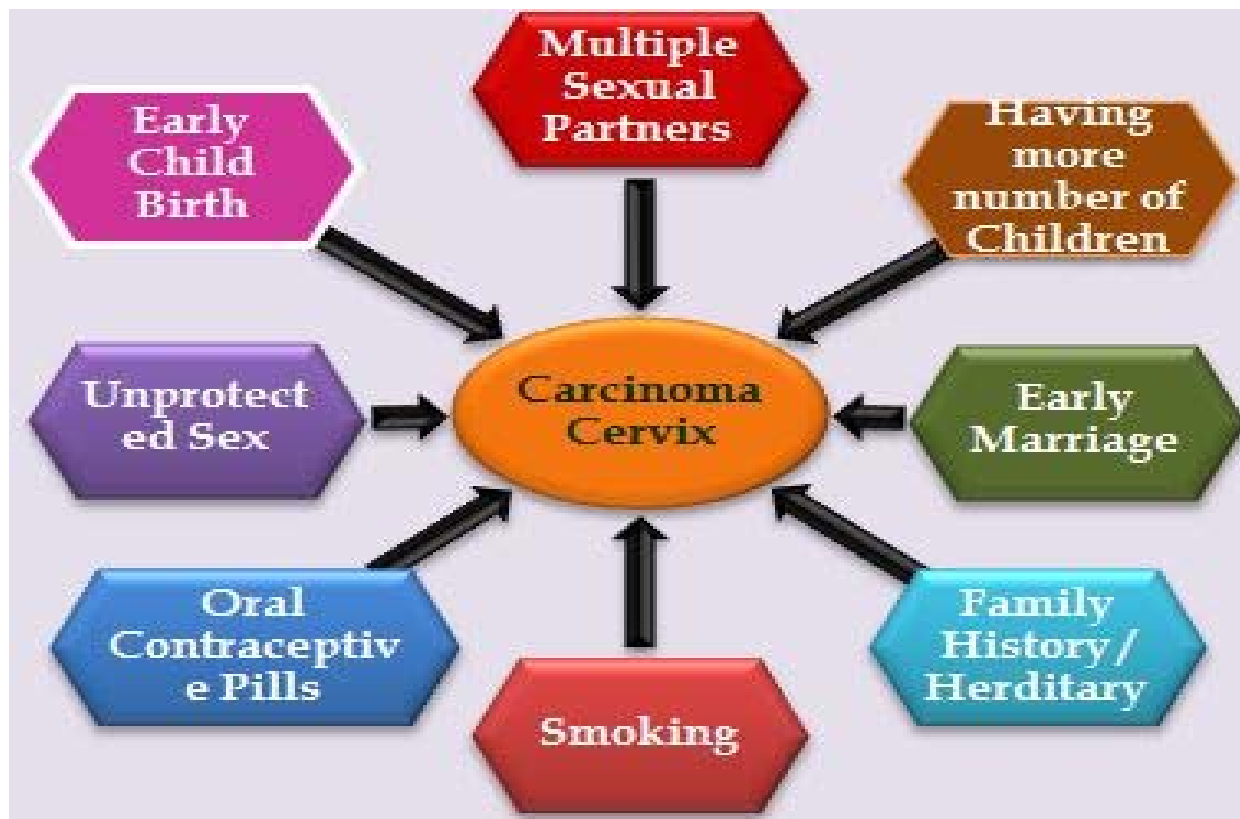
# Cervical cancer “clinical aspects”

Sh-sheikh hasani-MD

GYN. Oncologist

Tehran university of medical science

- **528,000 new cancer cases** worldwide and **266,000 deaths** in 2012.
- incidence and mortality rates depend upon: **screening programs and (HPV) vaccination,**
- Due to these interventions: **75 percent decrease** in the incidence and mortality of cervical cancer over the past 50 years in developed countries.
- **developing countries** : the **second most common type of cancer** (15.7 per 100,000 women) and the **third most common cause of cancer mortality** (8.3 per 100,000).



# Risk factors

- Early onset of sexual activity : <18-20y/o,,1.5-2 fold
- ●Multiple sexual partners : twofold with two partners
- ●A high-risk sexual partner
- ●History of sexually transmitted infections
- ●History of vulvar or vaginal squamous intraepithelial neoplasia or cancer
- ●Immunosuppression (HIV)

Early age at first birth and increasing parity  
(due to exposure to HPV )

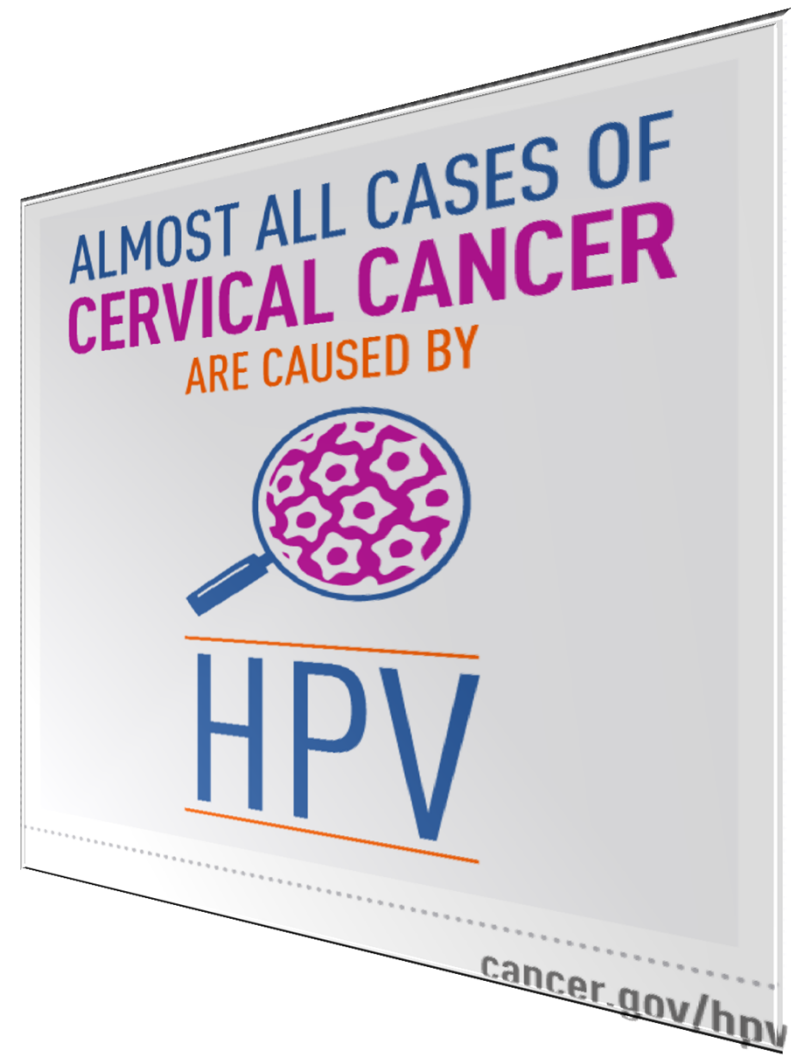
Low socioeconomic

Oral contraceptive

Cervical cancer is less common in sexual  
partners of circumcised males

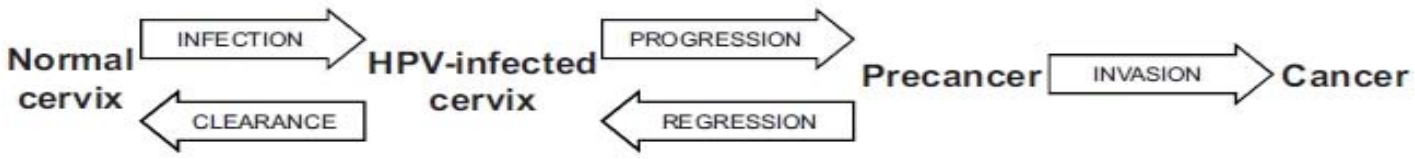
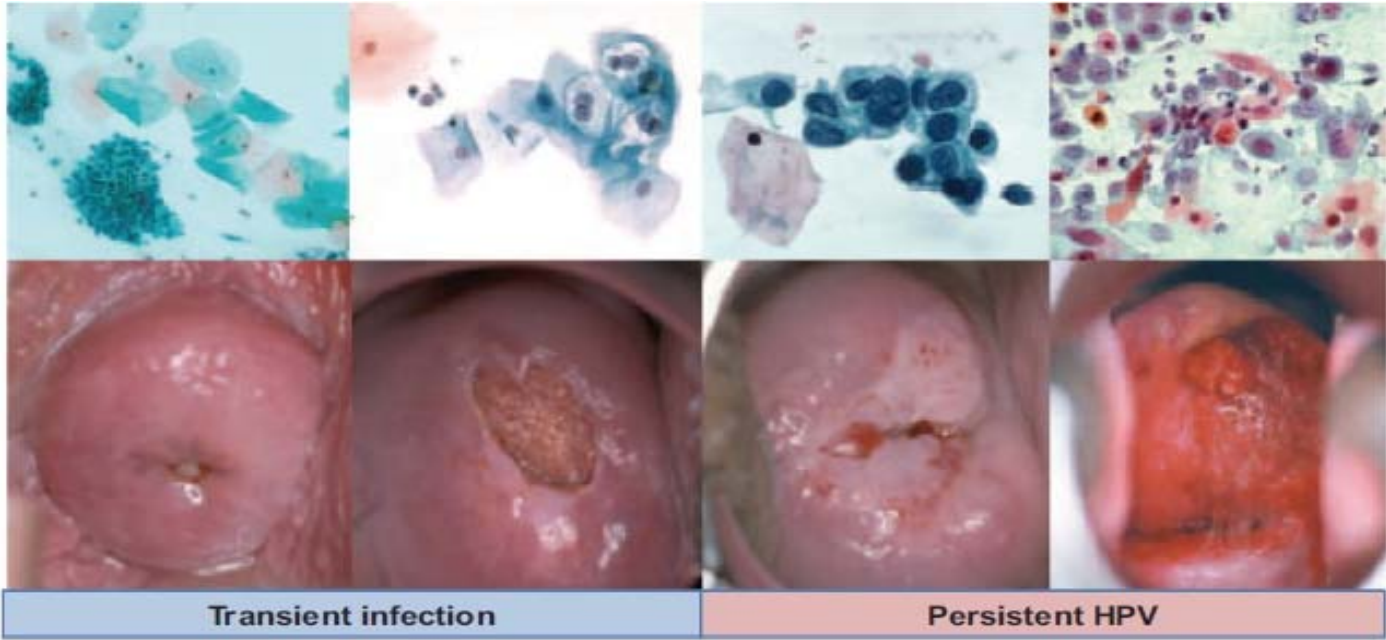


# PATHOGENESIS



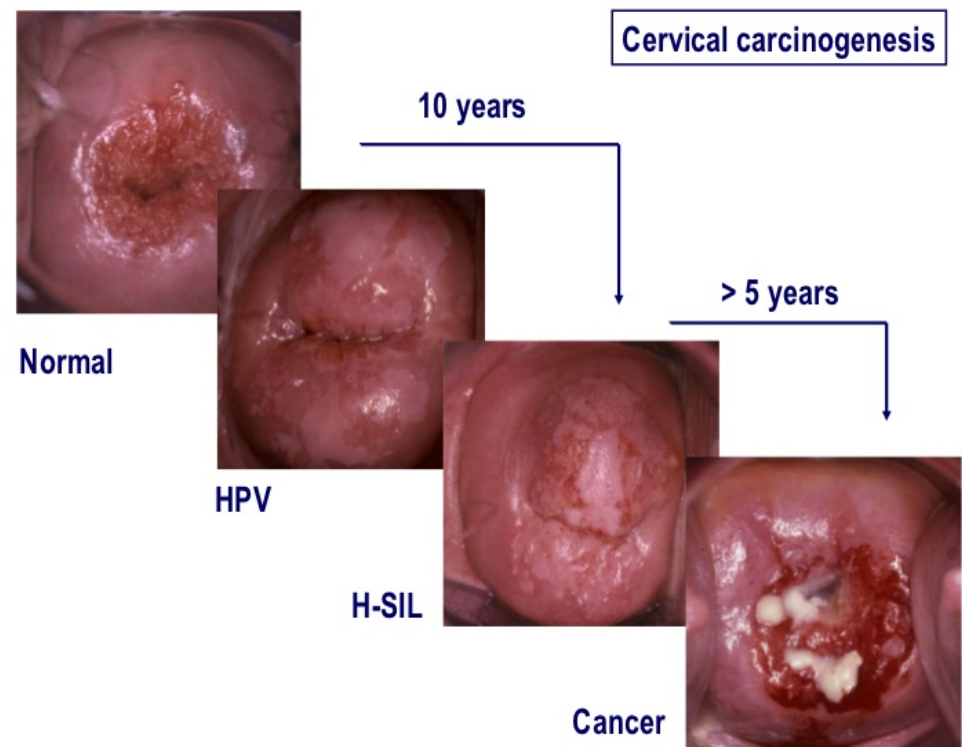
# PATHOGENESIS

- Genital tract HPV infection is extremely common **but results in cervical cancer in only a small proportion of infected women.**
- **75 to 80 %** of sexually active adults will acquire genital tract HPV before the age of 50
- Most HPV infections are transient, and the **virus alone is not sufficient to cause cervical neoplasia.**



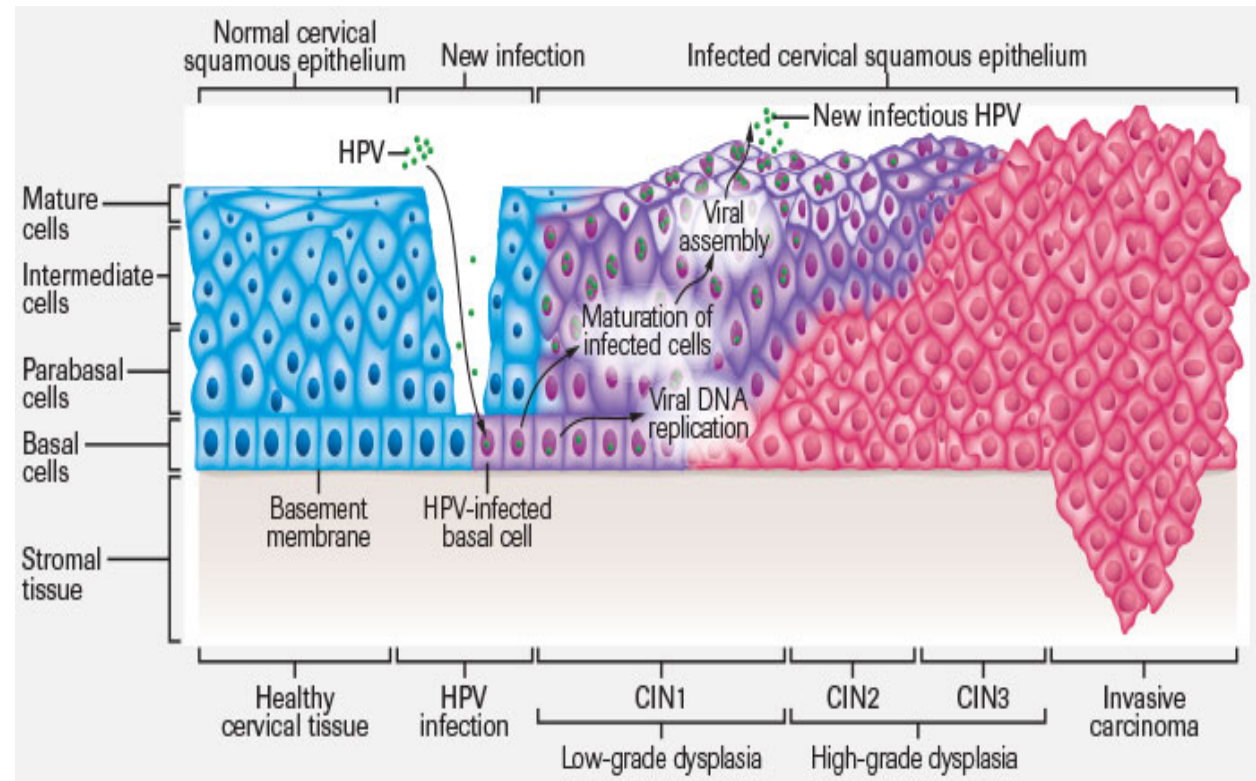


- HPV infection persists, the time from initial infection to development of high grade cervical intraepithelial neoplasia and, invasive cancer: **average of 15 years,**
- although more rapid courses have been reported



## four major steps in cervical cancer development

- Oncogenic HPV infection of the metaplastic epithelium at the cervical transformation zone
- Persistence of the HPV infection
- Progression of a clone of epithelial cells from persistent viral infection to precancer
- Development of carcinoma and invasion through the basement membrane



“

**WHAT ARE THE  
MAIN SYMPTOMS  
OF CERVICAL  
CANCER?**

CERVICAL CANCER PREVENTION:  
**MYTHS & TRUTHS**

”

1 Unusual Vaginal Discharge



2 Abnormal Vaginal Bleeding



3 Heavier & Longer Menstrual Periods



4 Discomfort while Urinating



5 Loss of Bladder Control



6 Pain during Intercourse



7 Pelvic Pain



8 Unexplained Weight Loss



9 Constant Fatigue



10 Leg Pain



# 10 Warning Signs of CERVICAL CANCER You Should Not Ignore



To explore more, visit

**Top10**  
Home Remedies

[www.Top10HomeRemedies.com](http://www.Top10HomeRemedies.com)

## Women should not have to die from cervical cancer.

Each year there are an estimated  
**528,000 new cases & 266,000 deaths**  
from cervical cancer.<sup>1</sup>

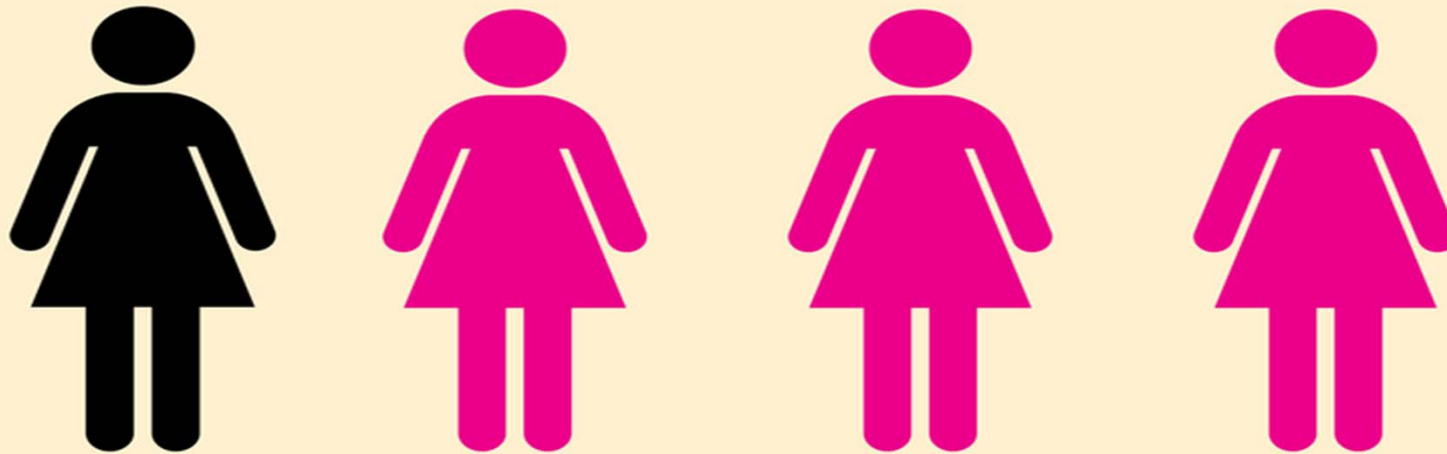


With  
proper **screening, vaccination, and treatment,**  
cervical cancer is

**highly preventable.**




# SCREENING AND PREVENTION



1 in 4 delay smear tests because of embarrassment


Attend your smear, reduce your risk of cervical cancer [jostrust.org.uk/smearforsmear](http://jostrust.org.uk/smearforsmear)



A smear test lasts **5** minutes.

The impact of cervical cancer lasts a lifetime.

Attend your smear test.  
Reduce your risk.

Jo's cervical check smear  Call our helpline 0808 802 8000 Find us online [jostrust.org.uk](http://jostrust.org.uk)

Less than 21	No screening
21-29	Screen with PAP every 3 years
30-65	Screen with PAP and HPV (co-testing) every 5 (preferred)
Older than 65	No screening following adequate prior normal screen

# RECOMMENDATIONS FOR HPV IMMUNIZATION IN FEMALES



- HPV vaccination for females **aged 11 to 12**
- prevention of cervical, vaginal, vulvar and anal cancer and the related precursor lesions and genital warts
- These vaccines can be administered to females as young as **age nine**.
- **Catch-up :13 to 26 years old**



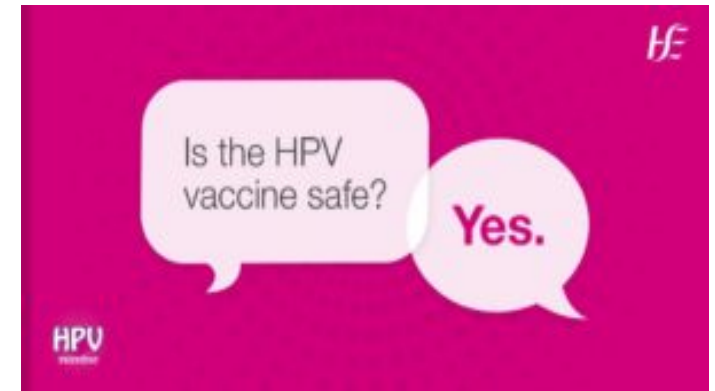


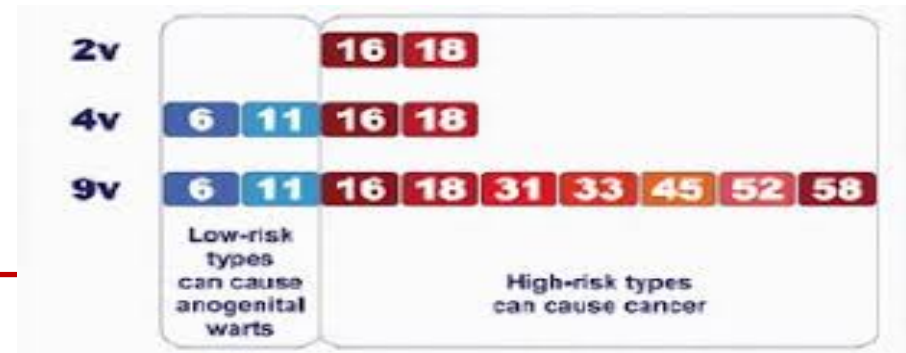
- HPV positive and vaccination?
- PAP abnormality ,genital wart and vaccination?

- HPV vaccine is **most effective among individuals who have not been infected with HPV**
- **optimal time** for HPV immunization is prior to an individual's sexual debut
- Females who are sexually active **should still be vaccinated** consistent with age-specific recommendations.
- A history of an abnormal Papanicolaou test, genital warts, or HPV infection is **NOT** a contraindication to HPV immunization.

# Efficacy

- **Quadrivalent HPV vaccine:**
- Among HPV-naïve populations: **97 to 100 percent**
- •In the overall population of study participants (with or without prior HPV infection): approximately **44 percent** after a mean follow-up period of three years.





- **9-valent vaccine**
- Among HPV-naïve populations: **97 percent**
- •In the overall population of study participants (with and without prior HPV infection):**the same as those who received the quadrivalent vaccine (14 cases/1000 person years in both groups).**

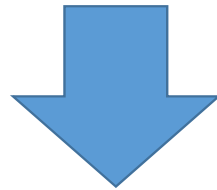
# Immunization schedule

- Individuals **younger than 15 years** should receive two doses of HPV vaccine at least six months apart. **(0-6)**
- Individuals **15 years or older** : typically administered in three doses at time zero, and at two and six months of follow-up. **(0-2-6)**

## In the era of HPV vaccination,

- most experts expect a decrease in the incidence of cervical cancer in women who receive the vaccine.
- there are not likely to be significant decreases in cervical dysplasia or cancer for many years after the vaccination programs.

if vaccine rates of 70  
percent worldwide  
are achieved



decrease of **344,520** new cases of cervical  
cancer annually  
avoid **178,182** cervical cancer-related deaths

- **Australia** :vaccination rates >70 percent, there has already been a **38%** reduction in high grade dysplasia .
- **United States** : there has been a decrease in the incidence of high grade cervical dysplasia.2008-2012,**18%**

this sharp decrease in high grade cervical dysplasia should translate into decreased incidence of cervical cancer in the next decade



Thank you!

