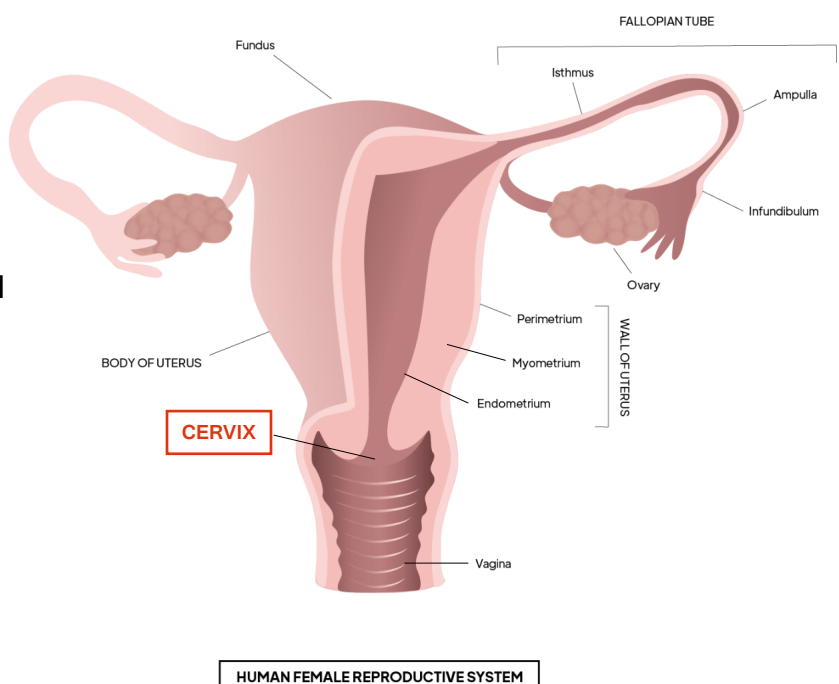


# What is Cervical Cancer?



- Cervical cancer occurs due to abnormal cell growth in the cervix, a part of the female reproductive system connecting the vagina to the uterus
- Caused due to infection by **Human Papillomavirus (HPV)** serotypes 16 and 18 in 70% cases of cervical cancer and precancerous lesions
- Usually detected between 35 and 44 years of age; average age of diagnosis is 50 years
- Fourth most common cancer and one of the major causes for cancer death among women



## Squamous cell carcinoma

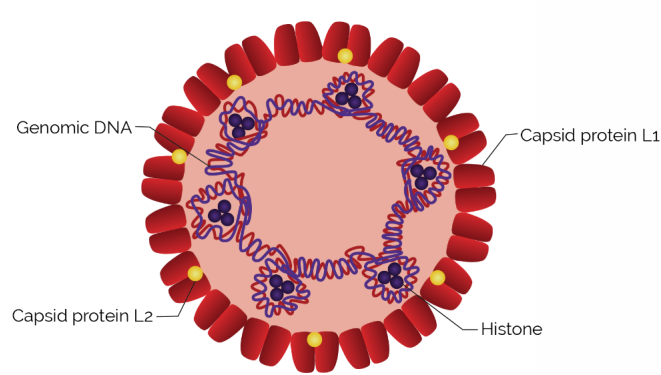
Develops from the squamous cells of exocervix

Responsible for majority of invasive cases of cervical cancer

## Adeno carcinoma

Develops from the glandular cells of endocervix

- The junction of the squamous cells of exocervix and glandular cells of endocervix is called the "Transformation zone" or "Squamocolumnar junction"



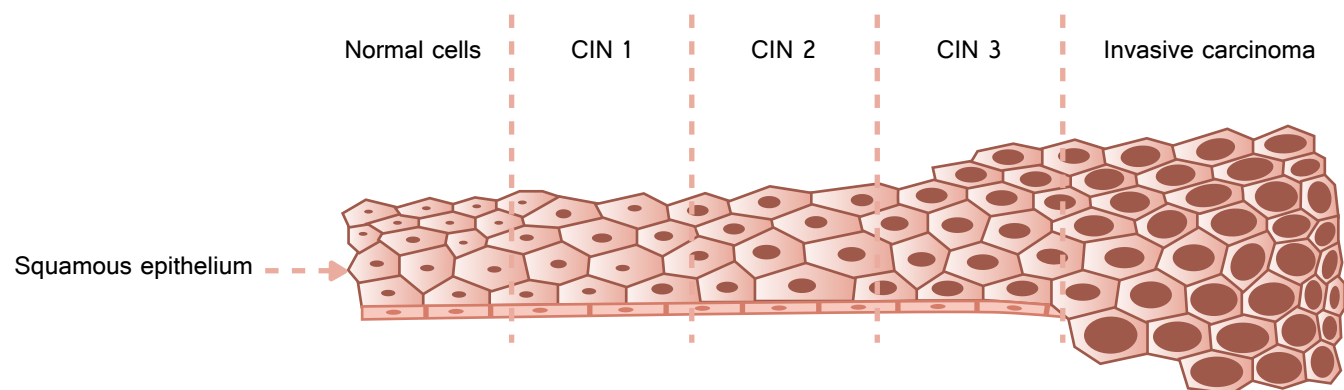
### Structure of Human Papillomavirus

First discovered by Dr Hazard Zur Hausen in 1970

### Facts check: HPV

- 100 types of HPV; 14 of which lead to cancer
- HPV infection is transient in nature and gets cleared through immune response
- Latency period: 15-20 years in women with normally functioning immune system and 5-10 years in immunocompromised women
- Also causes cancers of vagina, vulva, penis, and anus

## Progression of cervical cancer



CIN: Cervical intraepithelial neoplasia

## Risk factors

- Persistent infections leading to the development of malignant conditions
- Consumption of oral contraceptives for prolonged time periods
- Coinfection with agents such as Herpes simplex virus
- Exposure to diethylstilbestrol
- Multiple sexual partners
- Smoking

## Signs and symptoms

- **Early stage:** Bleeding after menopause, pain during sexual intercourse and pain in the pelvis area
- **Advanced stage:** Swelling of legs, difficulty in urinating and bowel movements

## Screening tests

- Visual Inspection with Acetic Acid
- Pap test and liquid-based cytology
- HPV test

## Treatment

- Surgery
- Radiotherapy
- Hormone chemotherapy
- Immunotherapy



### In pregnant women:

- **Early stage:** Radical operative therapy
- **Advanced stage:** Pregnancy completed operatively & referred to ionizing radiation

## Prevention

- **Primary:** 9 - 14 years of age



HPV vaccine

- **Secondary:** 30 years and above



HPV test/HIV test

- **Tertiary:** Every age



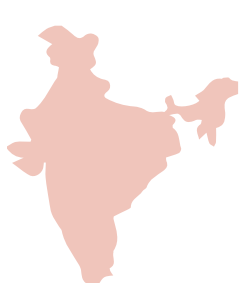
Treatment of invasive cancer through surgery, radiotherapy and chemotherapy



Sex education



Cryotherapy or thermal ablation in case pre cancerous lesions are detected



In India, around 96,922 new cervical cancer cases & 60,078 cervical cancer deaths were reported in a 2018 survey, with incidence and mortality rates of  $14.7/10^5$  and  $9.2/10^5$  respectively; higher than several other nations around the world.