

Cervical intraepithelial neoplasia (CIN)

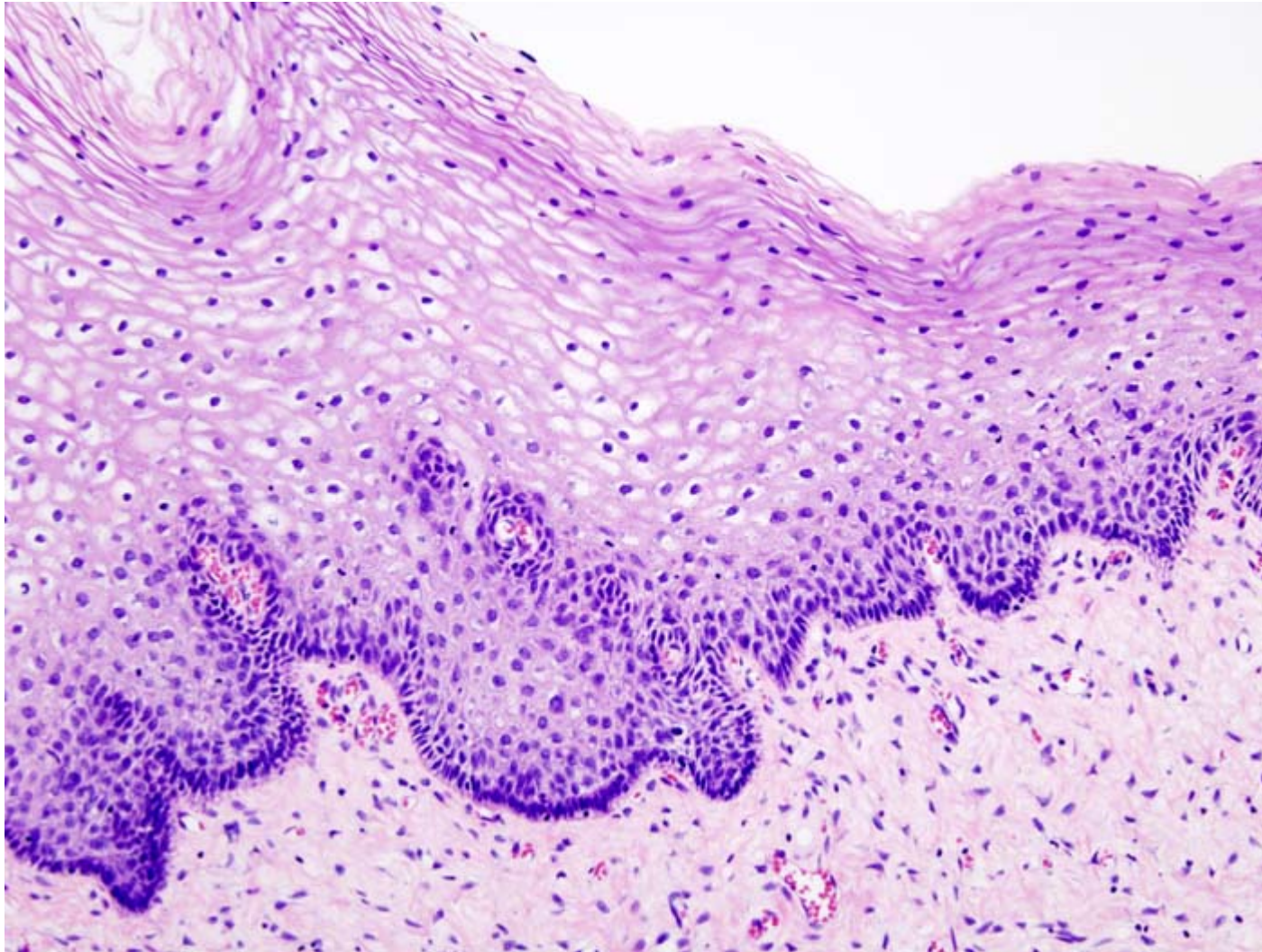
Cervical intraepithelial neoplasia (CIN), also known as **cervical dysplasia** and **cervical interstitial neoplasia**, is the potentially premalignant transformation and abnormal growth (dysplasia) of squamous cells on the surface of the cervix. Most cases of CIN remain stable, or are eliminated by the host's immune system without intervention. However a small percentage of cases progress to become cervical cancer, usually cervical squamous cell carcinoma (SCC), if left untreated.

The major cause of CIN is chronic infection of the cervix with the sexually transmitted human papillomavirus (HPV), especially the high-risk HPV types 16 or 18. Over 100 types of HPV have been identified. About a dozen of these types appear to cause cervical dysplasia and may lead to the development of cervical cancer. Other types cause warts.

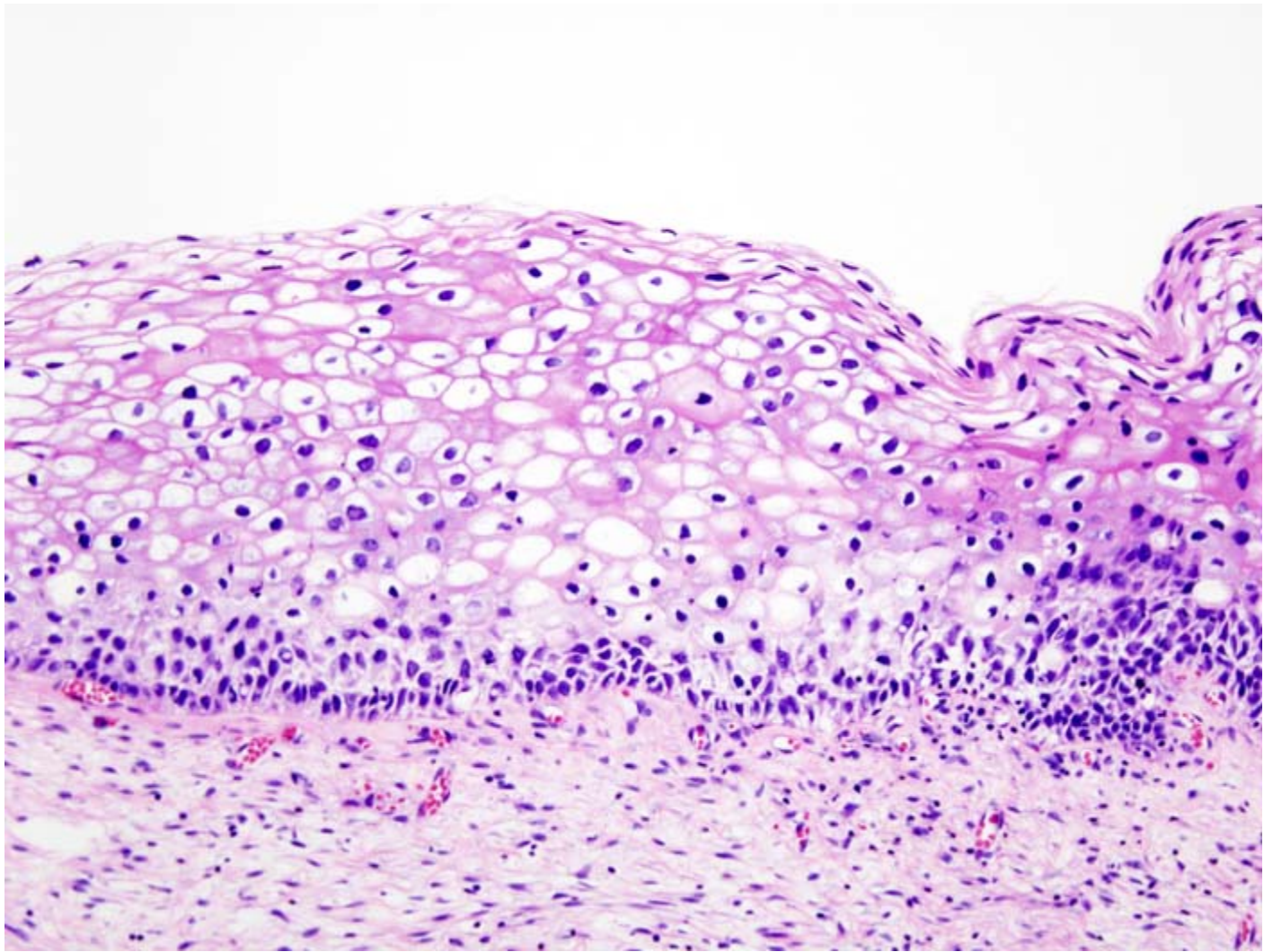
The earliest microscopic change corresponding to CIN is dysplasia of the epithelial or surface lining of the cervix, which is essentially undetectable by the woman. Cellular changes associated with HPV infection, such as koilocytes, are also commonly seen in CIN. CIN is usually discovered by a screening test, the Papanicolaou or "Pap" smear.

Giovanni Maciocia

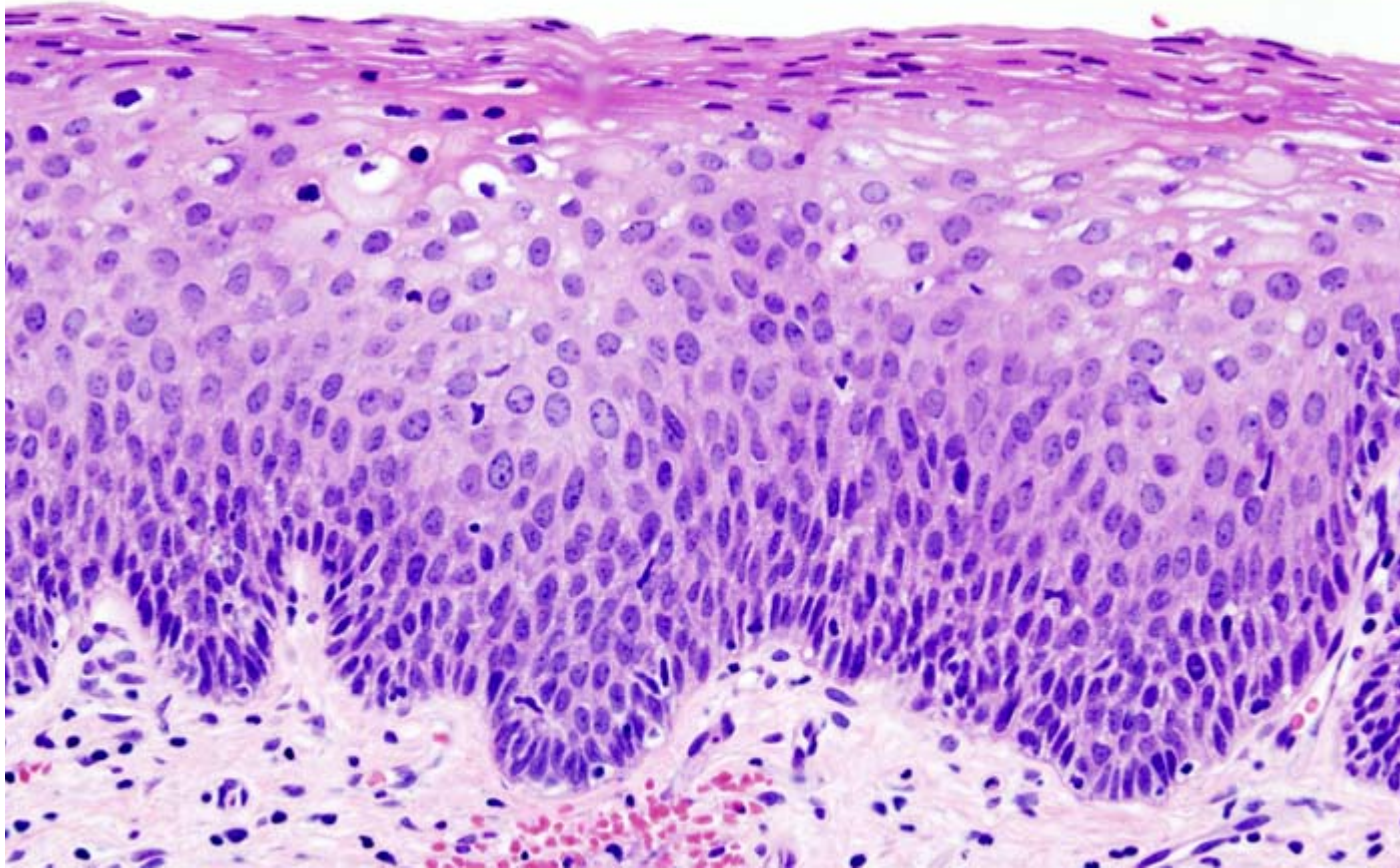
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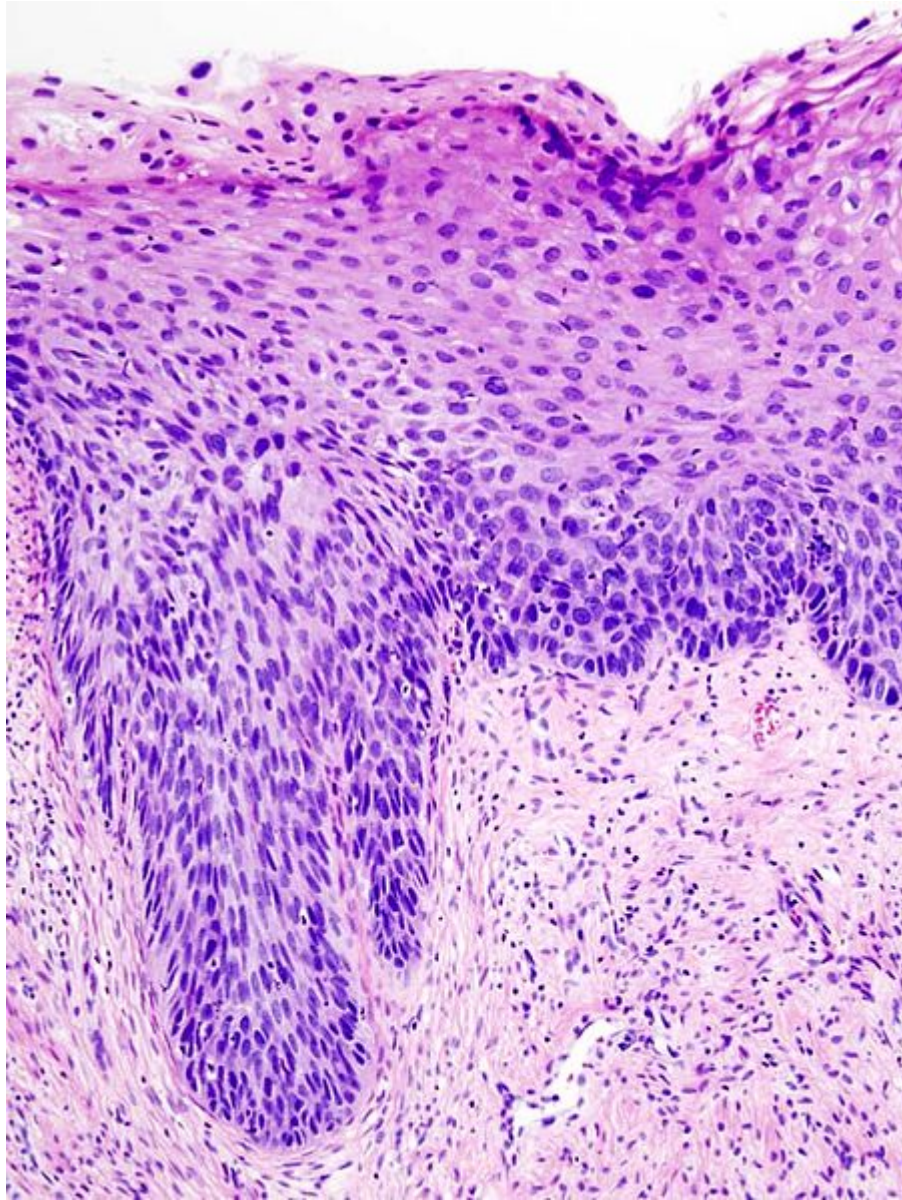
Normal epithelium



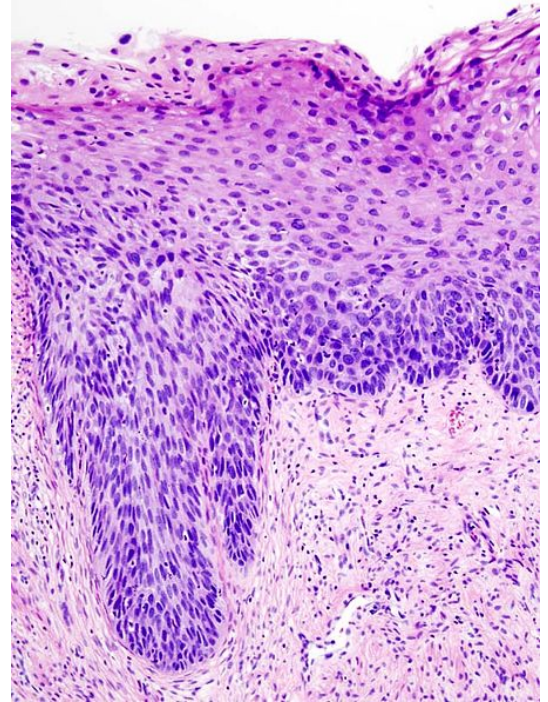
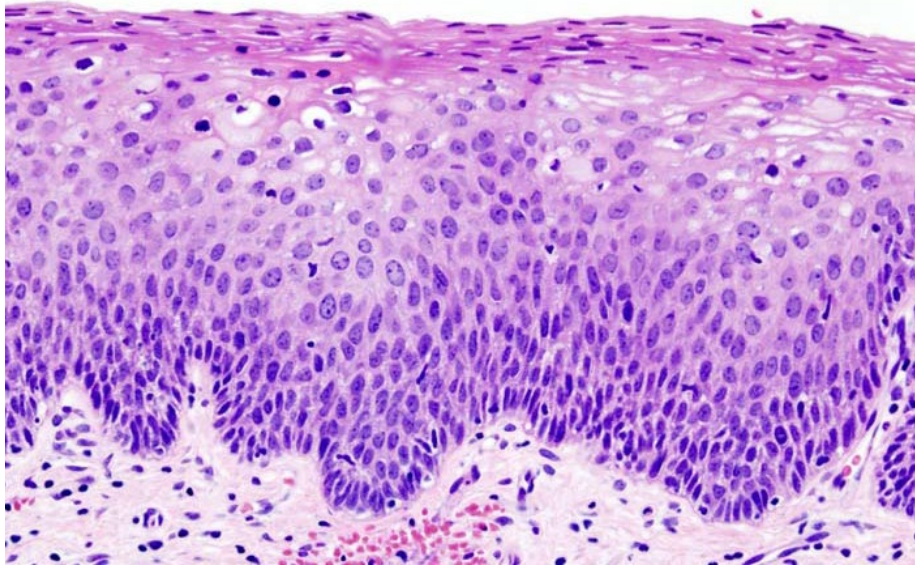
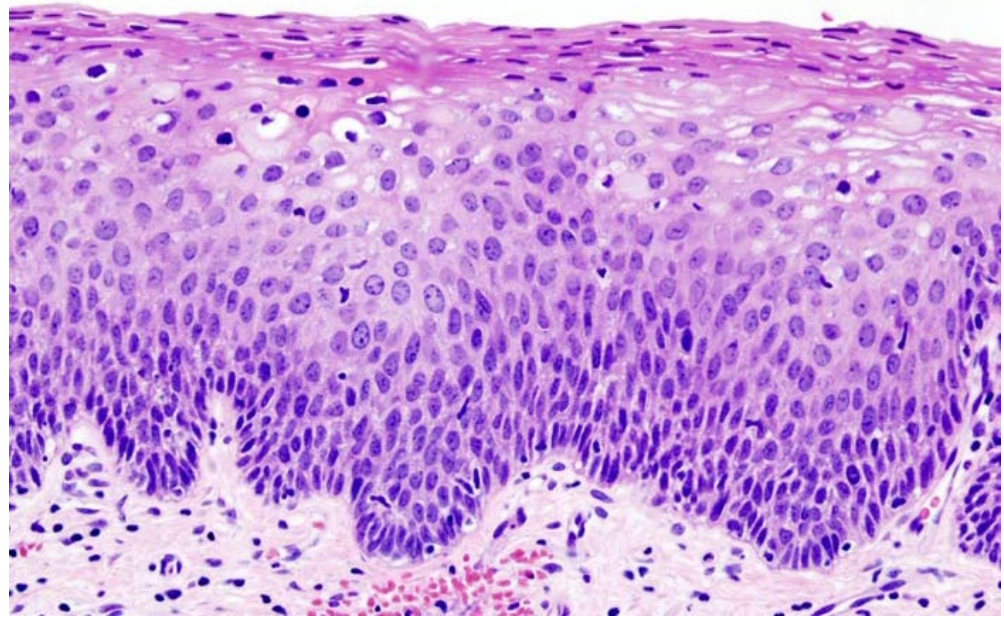
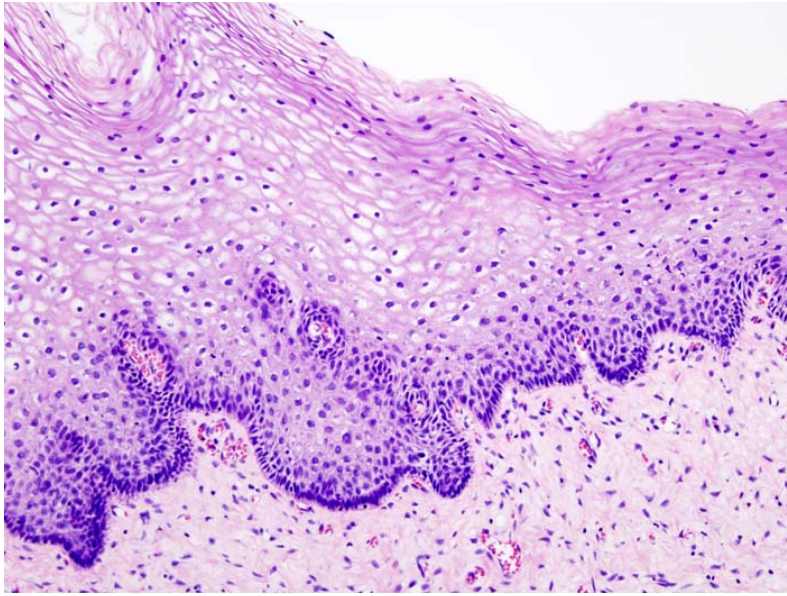
CIN1



CIN2



CIN1



Normal cervix



Normal cervical cells



Cervical dysplasia

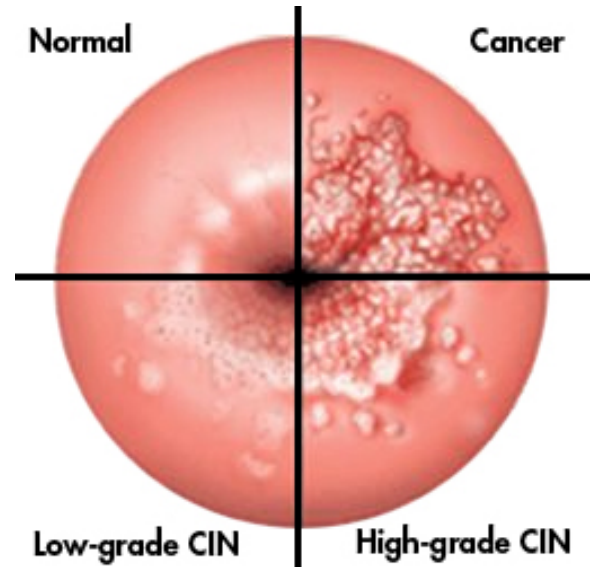


Cancerous or pre-cancerous cervical cells



Normal

Cancer



Low-grade CIN

High-grade CIN

