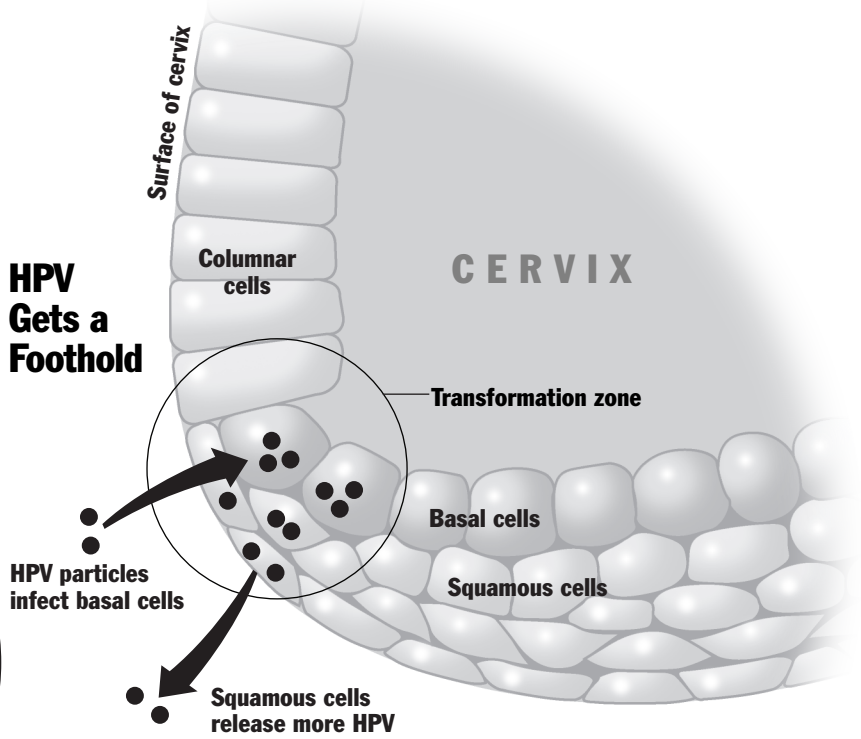
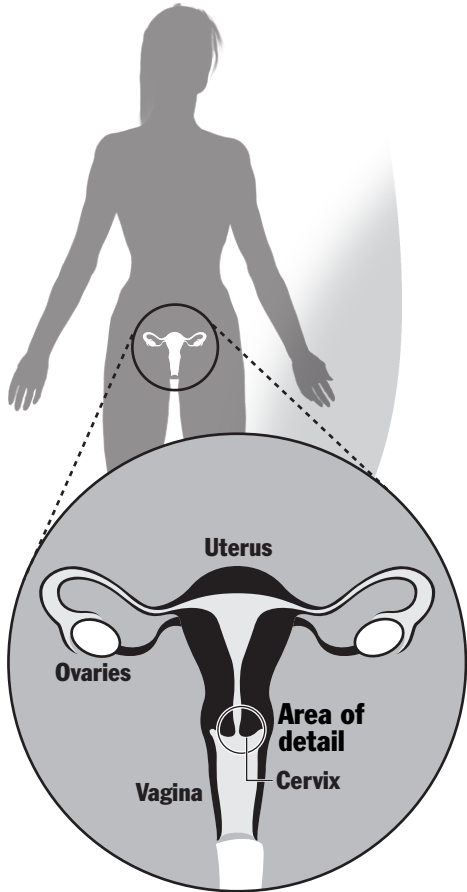


How HPV Infection Can Lead to Cancer

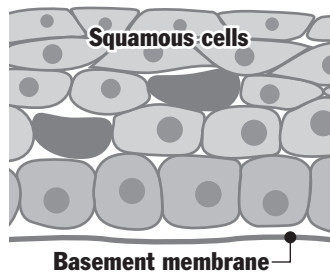
Most HPV infections are harmless, but “high-risk” strains can cause severe abnormalities that progress to cancer.



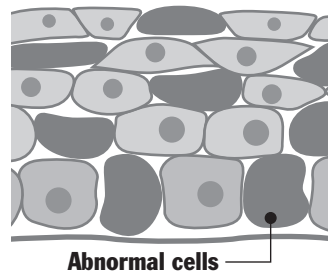
The virus takes advantage of a “**transformation zone**,” where different types of cervical cells meet in a thin junction. Immature **basal cells** are unusually close to the surface of the **cervix**. The virus invades basal cells, and then reproduces within these cells as the cells divide, mature into **squamous cells**, and rise to the surface. The infectious virus particles escape from the mature squamous cells and then invade more basal cells.

From Infection to Cancer

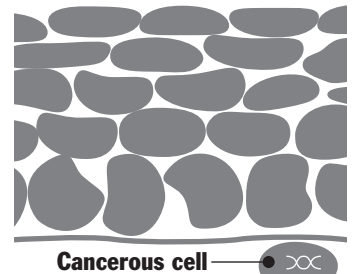
“High-risk” HPV types have the potential to lead to cancer over a decade or longer. When the virus infects cells, it gradually causes increasingly severe damage.



Basement membrane
In mild abnormality, only a few cells are changed. This sometimes goes away on its own.



Abnormal cells
In moderate abnormality, affected cells are found throughout much of the surface lining of the cervix.



Cancerous cell
Abnormal cells progress to malignancy after the virus slips two key cancer-causing genes into the DNA of the host.

SOURCE: Dr. Richard M. Haupt, Merck & Co.

ALAN BASEDEN / Inquirer Staff Artist