Neuroendocrine Cervical Cancer (NECC)

The neuroendocrine system is made up of neuroendocrine cells. These cells are found throughout your body but are mainly in your intestines, pancreas, thyroid and lungs. Neuroendocrine cells are also located in the thymus, kidneys, liver, prostate, skin, cervix, ovaries and testicles. These cells are like nerve cells (neurons), but they also make hormones like other types of endocrine cells. They receive messages (signals) from the nervous system and respond by making and releasing hormones. These hormones control many body functions. Neuroendocrine tumors start in cells of the neuroendocrine system. They are classified as functional or non-functional.

Types of Neuroendocrine Cervical Cancers

Neuroendocrine cervical carcinoma (NECC) is divided into 3 categories:

- **Low-grade neuroendocrine tumors** (also called carcinoid or atypical carcinoid tumors)
- **High-grade neuroendocrine tumors (**also called small-cell carcinoma and large-cell neuroendocrine carcinoma)
- **Mixed neuroendocrine carcinoma** – has other types of tumors such as adenocarcinoma, squamous cell or adenosquamous carcinomas

In the cervix, high-grade neuroendocrine cancer is the most common. High-grade means there are small and/or large cells. It is also common to see mixed tumors. These are high-grade neuroendocrine tumors mixed with adenocarcinomas. Sometimes they are seen with squamous cell tumors. Mixed small and large cell tumors can also be found together as well.

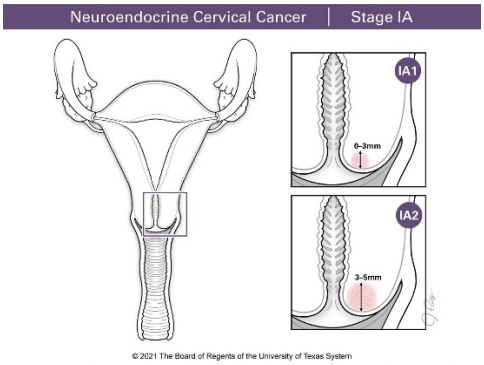
Staging

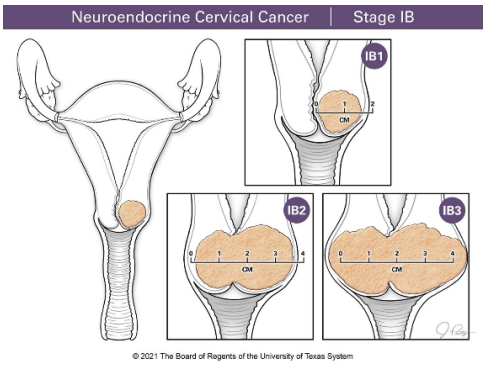
When you receive a cancer diagnosis, more tests are done to find out if the cancer has spread to other parts of your body. This is called staging. The stage of cancer is based on the size and amount of the disease. Cancers are staged at the time of diagnosis and do not change during treatment or recurrence. Cervical cancer is staged I to IV (1 to 4). Staging allows doctors to choose the best treatment options. All stages are not treated in the same way. The cancer stage also helps to understand outcome. In general, an early stage cancer may have a better outcome than an advanced stage cancer.

Stages

Stage I

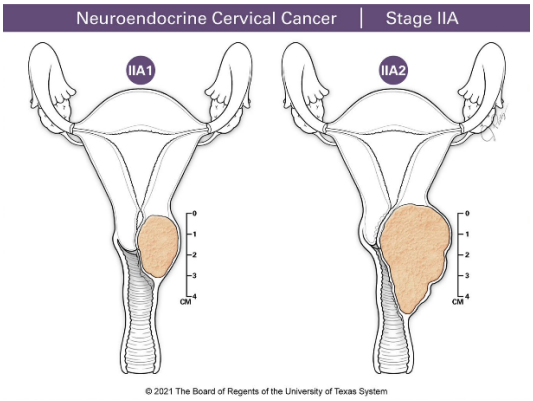
The tumor is only in the cervix. Categories under **Stage I** include Stages **IA1** and **IA2** for tumors that can only be seen under a microscope and **Stages IB1, IB2** or **IB3** for tumors that can be seen by the naked eye.

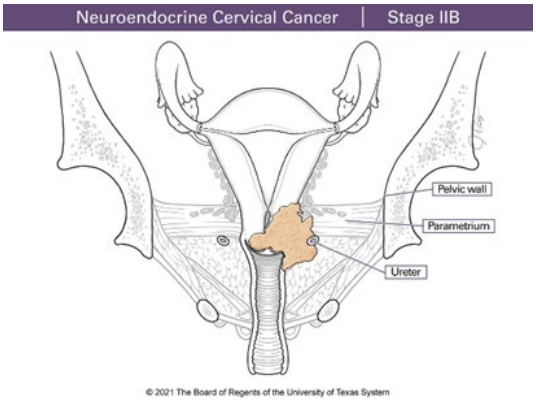




Stage II

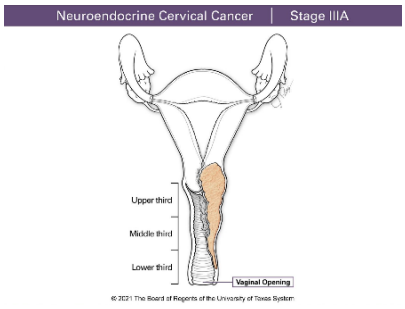
The tumor extends past the cervix. **Stage IIA** involves the upper part of the vagina and **Stage IIB** includes the tissues of the parametrium.

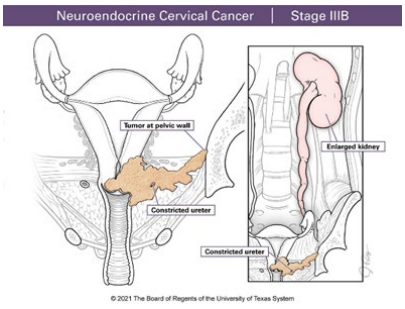


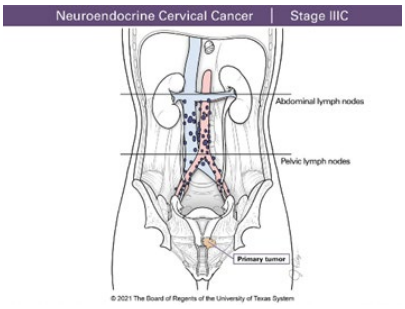


Stage III

These tumors have grown past your upper vagina or parametrium. **Stage IIIA** means the tumor has reached the lower part of the vagina. **Stage IIIB** involves the parametrium and the pelvic wall. When this happens, urine can back up to the kidneys. This is called hydronephrosis and defines **Stage IIIB. Stage IIIC** means the cancer has reached the lymph nodes. **Stage IIIC1** means the cancer has spread to the pelvic lymph nodes, and **Stage IIIC2** means the lymph nodes around the large blood vessel in the pelvis (paraaortic) are involved.

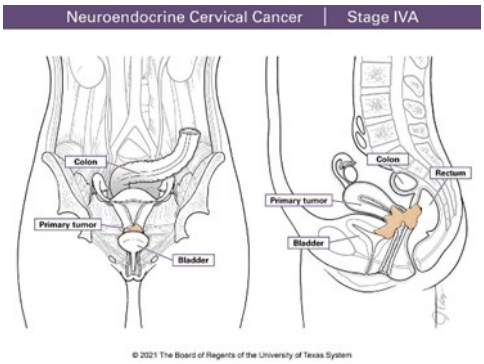




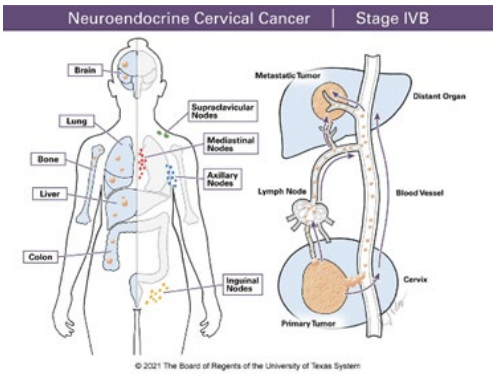


Stage IV
These tumors have spread to other pelvic organ (stage IVA) or outside the pelvis (stage IVB)

Stage IVA
These tumors have spread (metastasized) to other pelvic organs such as the bladder or rectum.



Stage IVB
These tumors have spread to distant organs. This may include the lungs, liver or brain. In addition, the cancer may have spread to distant lymph nodes such as the supraclavicular, axillary, inguinal or mediastinal nodes.



Treatment

Primary treatment is the first treatment you receive after diagnosis. Treatment may be surgery alone, surgery followed by radiation and/or chemotherapy, chemotherapy plus radiation followed by more chemotherapy, or chemotherapy alone depending on the stage.

Follow-Up Care

The follow-up care plan includes a physical and pelvic exam every 3 to 4 months for the first 2 years after treatment. After 2 years, you will have these exams every 4 to 6 months for the next 3 years. In addition, routine imaging of your chest, abdomen and pelvis may be done with either a CT scan or PET/CT.