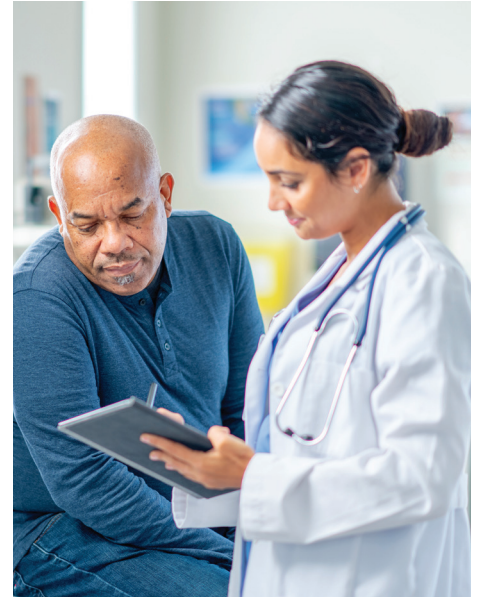


After a lung tumor or nodule is detected in the lungs, physicians need to learn more about the tumor to understand:

1. **If cancer is present**
2. **If so, what type of cancer**
3. **The cancer size and how far it has spread**
4. **How aggressive the cancer appears to be**

This information is gathered through imaging tests (like **CT** and PET scans) and **biopsies** which remove tissue for testing and review under a microscope.

If a lung NET is diagnosed, physicians will determine its stage and grade, identify the specific NET subtype, and develop a treatment plan.



Lung NET Staging

Three factors are used to determine cancer **stage** (sometimes referred to as the TNM classification system). T – Tumor size and location N – Regional lymph node involvement. Lymph nodes are small ball-shaped immune system organs distributed throughout the body. It is important to know whether the cancer has spread to the lymph nodes around the lung and in the chest. M – Metastasis status refers to which organs the cancer has spread. Values are assigned to T, N and M, to provide more information about the cancer and inform the stages listed below. The stages of lung NETs range from one to four, usually expressed in Roman numerals (I through IV). The lower the lung cancer stage, the less the cancer has spread.

Lung NET Grading

Pathologists look closely at lung NET cells under a microscope to learn more about the number of cells dividing and their speed (known as **mitotic count**), which translates into a “**grade**”. To do this, they look for **cell differentiation**, which means how much the tumor cells look similar to nearby healthy cells and tissue. Well-differentiated tumor cells have a similar shape and structure as nearby cells and tend to grow and spread slowly. Poorly differentiated tumor cells do not have similar shape and structure to nearby cells and tend to grow quickly.

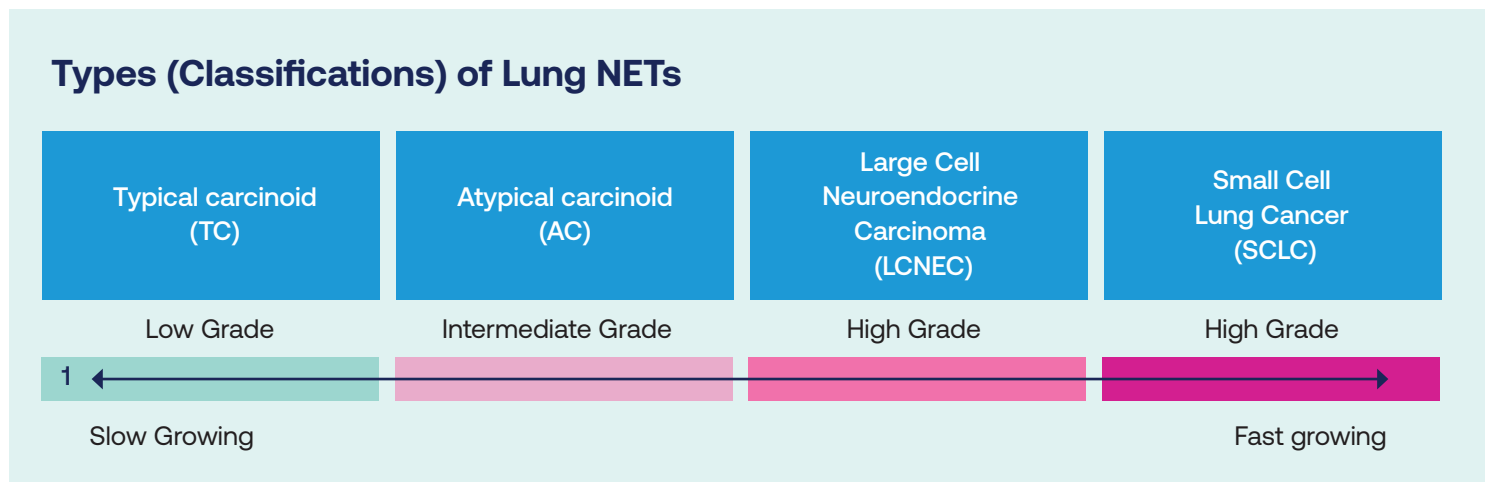
Pathologists also test the tissue for levels of a **protein called Ki-67**. The level of Ki-67 in cells increases as cells prepare to divide. The higher (closer to 100%) the Ki-67 percentage, the faster the cells may be growing and the higher the grade of the tumor.

Lung NETs can be graded low, intermediate or high. Lower grade tumors divide slower and are less aggressive than higher grade tumors.

Key Point: A lung NET’s **classification** describes the type of neuroendocrine tumor, while its **grade** describes how quickly it is likely to grow and its **stage** describes how far it has spread.

Classification

Mitotic count and cell differentiation also inform how lung NETs are classified (or categorized). The image below shows the different classifications of lung NETs and their associated grade. Each type of NET can be any stage, depending on how far the cancer has spread. However, the faster the cancer grows, the more likely it will be discovered at a later stage.



Because different lung NET subtypes can vary significantly, understanding a tumor’s classification, grade, and stage is essential. This information can help individuals with a lung NET better understand their diagnosis, treatment plan, and what to expect moving forward. If you have questions about your tumor’s subtype, grade, or stage, talk with your healthcare team about what these results mean for your care.

Visit [Lung.org/NETs](https://www.lung.org/NETs) to learn more.