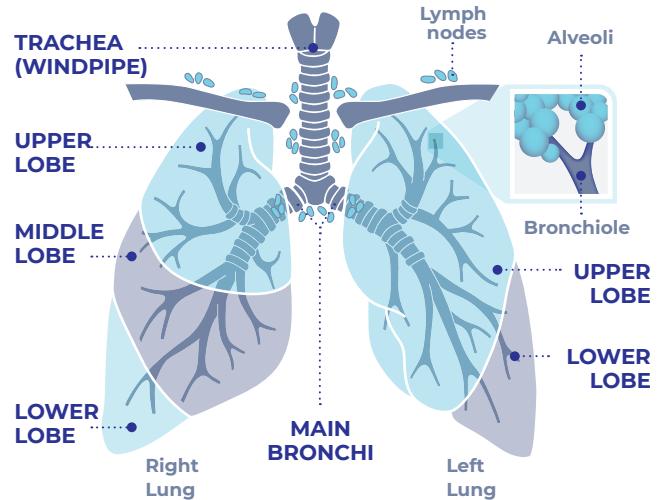


STAGE IV

Lung Cancer and Treatment Options

Non-small cell lung cancer (NSCLC) is staged from I (one) through IV (four). Each of the four stages is further broken down into sub-stages using letters. Both the size of the cancer and if it has spread to the lymph nodes or other parts of the body are used to determine the stage. To find out the stage of your cancer, you will have a number of tests and/or procedures.

Stage IV means your cancer has metastasized, or spread, to both lungs or to other parts of the body. There are two sub-stages – IVA and IVB.



STAGE IVA

The cancer has spread to one spot outside the lung, such as to the other lung, fluid around the lungs, a distant lymph node or another organ.

STAGE IVB

The cancer has spread to multiple spots outside the lung.

TREATMENT OPTIONS

Both stage IVA and IVB NSCLC are treated the same. Treatment usually includes chemotherapy with or without radiation, depending on the location of the cancer; targeted therapy if certain biomarkers are present; or immunotherapy. It is possible to receive more than one type of treatment at a time, known as **combination therapy**.

➤ **Chemotherapy** destroys cancer by killing fast growing cells. Often two types of chemotherapy are given in multiple cycles, with breaks in between to allow your body to recover.

➤ **Radiation Therapy** is used to target areas where the cancer has spread (i.e., brain, bones etc.) and/or to help reduce any pain or discomfort associated with the cancer.

Radiation uses high energy beams to kill or shrink cancer cells or prevent them from spreading.

➤ **Stereotactic Radiation Therapy** is used to treat small tumors in the brain by delivering higher and more precise doses of radiation to the cancer without causing damage to nearby healthy tissue.

continued on back

TREATMENT OPTIONS continued

Biomarker Testing

Biomarker testing, also called molecular testing, is recommended for all patients with stage IV NSCLC to look for changes in the cancer DNA and/or proteins. This information will allow your treatment team to form a personalized treatment plan for you.

- Biomarker testing typically involves testing the cancer using a piece of tissue from a biopsy.
 - If possible, you should receive a **'panel test'** which checks for many changes at one time.
 - You may have a **liquid biopsy**, which is a test done on blood or other fluids to look for changes to the cancer DNA. Liquid biopsy can be used for biomarker testing but cannot diagnose cancer.

Every person's cancer is different. Biomarker testing offers you and your treatment team the information you need to identify the best treatments for your individual case.

➤ **Targeted Therapy** is a type of treatment aimed at a certain "target" in cancer cells found by biomarker testing. These therapies are often given in pill form, but some can be given through a vein. They block the growth or spread of cancer cells while doing less damage to your normal cells.

- The most common "targets" in NSCLC are gene changes in EGFR, ALK, ROS1, BRAF and NTRK.

Biomarker testing is key to know if you have these gene changes.

➤ **Immunotherapy** is given through a vein and helps the body's own immune system fight the cancer. It can be given by itself or with chemotherapy.

- As part of biomarker testing, your doctor may test your cancer cells for the presence of certain changes (such as a protein called PD-L1) to see whether you are a good candidate for immunotherapy.

➤ **Palliative Care** is a form of care given to prevent or treat symptoms and side effects resulting from your lung cancer or treatment. Ask your doctor if palliative care makes sense for you.

- This type of care may be available in different settings, including hospitals, outpatient centers or home.
- Studies show that patients with advanced lung cancer who received palliative care early on and throughout their treatment not only had improved quality of life, but they also lived longer.

Source: <https://www.nejm.org/doi/full/10.1056/NEJMoa1000678>

➤ **Surgery** There are a very limited number of situations where surgery to remove the cancer is possible. For example, doctors may recommend surgery for a site where the cancer has spread or if the size and location of the primary cancer causes further medical risks and/or is causing discomfort.

Often treatments work well for some time, but then stop working. This is known as "resistance" to the therapy. When this is the case, it may be necessary to have a new biopsy and additional biomarker testing to further guide treatment decisions.

Always think about joining a clinical trial every time you need to make a choice about treatment. By being part of a trial, you may be able to try new ways to treat your cancer and help us learn more about the best ways to treat stage IV lung cancer.