

# Why Should I Talk to My Doctor ABOUT COMPREHENSIVE BIOMARKER TESTING?

If you have advanced-stage non-small cell lung cancer (NSCLC), know your biomarker status.

Biomarkers reveal the specifics of an individual's NSCLC



Biomarkers have revolutionized the treatment of lung cancer, leading to advanced precision medicine for YOUR lung cancer.

Comprehensive biomarker testing uses an advanced type of diagnostic test that analyzes a small piece of your tumor tissue to determine your biomarker status.



Knowing your biomarker status may allow you to access treatments that can be very effective for your specific NSCLC.

There are **13 FDA-approved** biomarker-driven targeted therapies for NSCLC patients with adenocarcinoma, while several more biomarker-driven therapies are in clinical trial for both NSCLC and small cell lung cancer.\*



There is one immunotherapy drug that is prescribed based on PD-L1 biomarker status. In addition, there are multiple immunotherapy drugs that can be prescribed regardless of a patient's PD-L1 status.\*

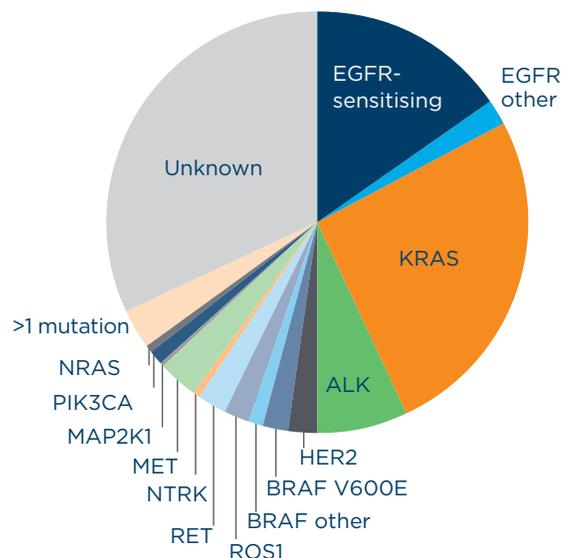


Image source: Hirsch F, et al. New and emerging targeted treatments in advanced non-small-cell lung cancer. *Lancet*. Vol 388. September 3, 2016.

## DRIVER MUTATIONS IN LUNG ADENOCARCINOMA

Currently, more than **25% of people** with adenocarcinoma (a type of NSCLC) have a biomarker that has a corresponding targeted therapy. This percentage will increase as scientists make new breakthroughs. **The driver mutations that currently have FDA-approved targeted therapy drugs available are EGFR, ALK, ROS1, NTRK and BRAF V600E.**

**Based on comprehensive biomarker testing, other options, including chemotherapy and radiation therapy, will still be the best treatment options for some NSCLC patients.**

## GET CLEAR ON YOUR BIOMARKER STATUS.

Ask your healthcare team to perform comprehensive biomarker testing when you are diagnosed and at progression.

For more information, go to [lungevity.org/biomarkertesting](http://lungevity.org/biomarkertesting) or download our booklet at [lungevity.org/materials](http://lungevity.org/materials).

# Quick facts about biomarkers

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- A biomarker is any molecule that can be measured in your blood, other bodily fluids, or tissues.
- Presence of a biomarker may be a sign of an abnormal bodily process or condition or a disease.
- Biomarkers can be used to:
  - Determine whether a disease or condition is present
  - Tell you how aggressive the disease is
  - Predict whether your body is likely to respond to a treatment for a disease or condition
- Ideally, testing for the presence of biomarkers should be performed at the time of diagnosis so that your treatment can be personalized and precise from the start.
- There are two types of biomarkers currently used to help optimize a lung cancer patient's treatment:
  - Driver mutations that determine whether a particular targeted therapy may be effective
  - Immunotherapy biomarkers (such as the PD-L1 protein), which help determine whether a particular immunotherapy drug may be effective.

## Did you know?

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- Comprehensive biomarker testing should be an ongoing part of the discussions with your healthcare team. Any decision to test for biomarkers should be made together by you and your team, and depends on a number of factors, including your type and stage of cancer, your current treatment plan, and your overall health.
- Current guidelines recommend that all patients diagnosed with advanced-stage non-small cell lung cancer (NSCLC) be tested for the driver mutations EGFR, ALK, KRAS, ROS1, BRAF V600E, and NTRK and for the PD-L1 protein because their presence indicates whether treatments approved by the FDA may benefit you.
- Driver mutations and immunotherapy biomarkers other than those with approved treatments have been found in both NSCLC and small cell lung cancers. Drugs that target these are being tested through clinical trials, so it is important to consider biomarker testing that includes these biomarkers as well.

**Learn more about approved NSCLC targeted therapy drugs and immunotherapy drugs in our educational booklets available at [lungevity.org/materials](https://www.lungevity.org/materials).**

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