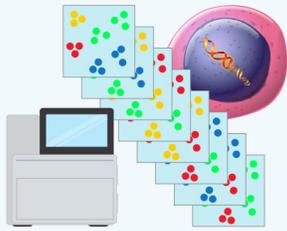


# UNDERSTANDING NGS AND CGP FOR LUNG CANCER



## Comprehensive genomic profiling and next-generation sequencing

**Comprehensive genetic profiling**, or **CGP**, is a type of genetic testing. It helps find changes in genes, called **mutations**, that affect how cancers grow, spread, and respond to treatment. CGP can find genetic mutations such as EGFR, KRAS, ALK, and others. It allows your doctor to look at the entire genetic “landscape” of a tumor.

**Next-generation sequencing**, or **NGS**, is the technology used to do CGP. It can **profile multiple genes at once**. This can give a broad overview of a tumor’s genetic mutations.

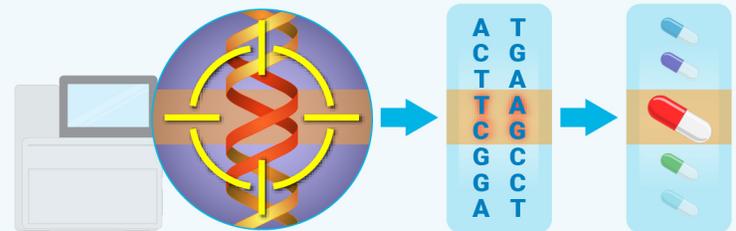
## Why are CGP and NGS important in lung cancer testing?

CGP can screen for hundreds of genetic biomarkers, helping doctors **understand the tumor better** and **choose the best treatment options**. It is helpful for finding mutations that can be targeted with specific drugs.



Treatments exist to successfully target the mutations that show up with CGP. Targeting them can slow or stop the cancer.

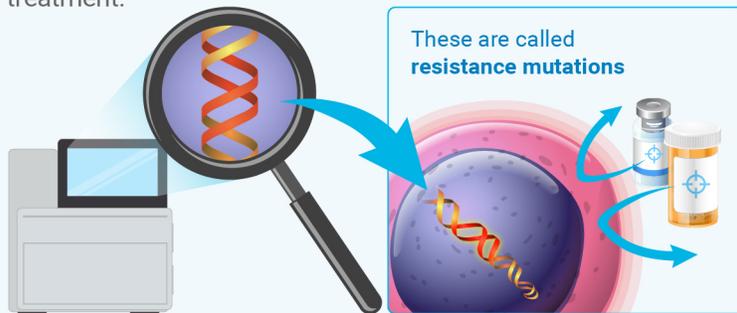
Using NGS to do comprehensive genetic profiling helps doctors diagnose, monitor, and treat lung cancers. This is especially helpful for people with **non-small cell lung cancer (NSCLC)**.



**Targeted treatments** can be more effective at destroying cancer cells than non-targeted treatments. Targeted treatments target cells with **specific mutations** and tend to leave healthy cells alone.

## Using NGS and CGP to guide ongoing treatment

Once you start targeted treatment, doctors can use CGP performed with NGS technology to learn how the cancer is responding and find **mutations that cause the cancer to become resistant** to treatment.

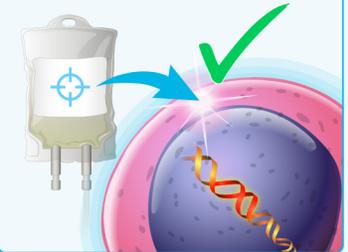


## Benefits of using NGS with CGP during ongoing treatment

Finding resistance mutations and other information about your lung cancer response allows doctors to **adjust your treatment plan if needed**



If a treatment is not working or the tumor is becoming resistant you may **switch to a treatment that could be more effective**



If your doctor suspects lung cancer, **ask about comprehensive biomarker testing using NGS technology**. If your doctor does not mention these tests, feel free to ask. The results can make a difference in your treatment options and success.

Please note: This information is not intended to be a substitute for professional medical advice. Always consult your doctor about any health-related questions.

### References:

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