

RET Fact Sheet

If a biomarker test shows you have RET positive (RET+) nonsmall cell lung cancer (NSCLC), what does that mean? This fact sheet explains the diagnosis and how it might affect your treatment.



WHAT IS RET?

RET is a **gene that plays a role in cell signaling**, which is how cells communicate to keep your body working well. When the RET gene changes, or mutates, a malfunctioning in cell signaling can result in cancer. The RET mutation is found in both lung and thyroid cancers. We don't know what causes the mutation, but we do know that blocking RET in tumors can slow the growth of cancer cells.



WHO HAS RET+ LUNG CANCER?

Although long-term smoking is a common cause of lung cancer, the RET fusion appears to be an exception. It's more often found in younger people and those who have never smoked. Roughly 2% of NSCLC patients are RET+ — usually those with adenocarcinoma.

HOW DO DOCTORS TREAT RET+ LUNG CANCERS?



People with RET+ NSCLC benefit from a drug that specifically targets the RET mutation.

Targeted drugs can keep cancer from growing and spreading, while having far fewer side effects than chemotherapy.

Two drugs to treat RET+ cancers, both given in pill form, have been approved by the U.S. Food and Drug Administration: **selpercatinib (Retevmo)** and **pralsetinib (Gavreto)**. Retevmo is taken twice a day, and Gavreto once a day on an empty stomach. Other drugs may be available in clinical trials.

Common side effects of these drugs include:

- Anemia (Vitrakvi only)
- Constipation
- Diarrhea
- Dry mouth
- Fatigue
- High blood pressure
- High blood sugar
- High cholesterol
- Low blood pressure
- Low blood platelet count (can cause bleeding)
- Lower sodium in the blood (can cause confusion)
- Low white blood cell count (can cause infection)
- Muscle or bone pain
- Skin rash
- Swelling

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