QUESTIONS & ANSWERS

ABOUT TRK FUSION CANCER

What is TRK fusion cancer and why do I need to know about it?

TRK fusion cancer is a type of cancer that is caused by a change to a particular gene. This gene is called an *NTRK* gene. The change occurs when the *NTRK* gene fuses, or joins, with a different gene. This joining—called an *NTRK* gene fusion—sets off a chain of events that causes cancer cells to grow, multiply, and form a tumor.

It's important to educate yourself on the cause, or driver, of your cancer, whether it's an *NTRK* gene fusion or something else. When you know this, you and your doctor can determine a more appropriate care plan specific to your type of cancer.

I have _____ cancer (lung, thyroid, brain, soft tissue sarcoma, etc). Could my cancer also be TRK fusion cancer?

Yes. This is a new way of looking at cancer, so it may be unfamiliar to you. We usually talk about cancer by its location in the body (breast cancer, lung cancer, etc). More and more, researchers and doctors are looking at the genomic (gene-related) cause of the cancer, rather than just the area where the cancer occurs. TRK fusion cancer is one such cancer where the focus is less on the location and more on the genomic cause.

TRK fusion cancer has appeared in different areas of the body in different patients. Some of these areas include the lungs, colon, thyroid, soft tissue sarcoma, and brain. Some childhood cancers also may be caused by *NTRK* gene fusions.

What is precision medicine?

Precision medicine is a more modern approach to the diagnosis, treatment, and prevention of diseases like cancer. With precision medicine, doctors see each patient as an individual. So they look at how things like a person's environment, lifestyle, and genetics may have played a role in their disease. They also use these factors to determine a care plan. The primary tool used in precision medicine is genomic cancer testing.

What is genomic cancer testing and how is it different from genetic testing?

Genomic cancer testing is a special kind of cancer testing that may assist in finding out the genomic cause of a cancer. This means that doctors can send a tissue or blood sample for testing and learn which gene changes may have triggered the cancer. Genomic cancer testing is an important tool in helping doctors match patients to a treatment or clinical trial that is likely to be helpful.

Genetic testing looks at a person's unique genetic (passed down from parents to child) profile to understand their inherited risk for getting cancer.

NTRK, neurotrophic tyrosine receptor kinase; TRK, tropomyosin receptor kinase.

I was diagnosed some time ago. Should I ask about genomic cancer testing and TRK fusion cancer?

Absolutely. Whatever point you're at in your journey, it's worthwhile to ask about genomic cancer testing.

- If you were tested in the past, ask your doctor when you were tested, what type of testing was done, and what was tested for
  - If your doctor did genomic cancer testing in the past, he or she may be able to review the results and see if TRK fusion cancer was tested for
- If your doctor diagnosed and treated you, but didn't perform genomic cancer testing, ask if genomic cancer testing could provide more useful information about your cancer

Where can I learn more about TRK fusion cancer and genomic cancer testing?

You should always speak to your doctor if you have any questions about your care. This includes learning about your cancer and finding out what testing has been/can be done. You can also find helpful information at the following websites:

- TRKcancer.com
- TestYourCancer.com

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