



Understanding Pan-Tumor Cancer Care

A Patient's Guide to Biomarkers, Precision Medicine,
and Clinical Trials

*Created in collaboration with **Tigerlily Foundation** and **Bristol Myers Squibb***

What Does "Pan-Tumor" Mean?

Traditionally, cancers have been classified by where they start in the body, such as the breast, lung, ovary, colon, or bladder. Pan-tumor refers to a cancer treatment approach that targets shared molecular or genetic features across different tumor types, rather than focusing on the organ of origin.

Pan-tumor care recognizes that cancers arising in different parts of the body may share similar molecular or genetic characteristics. Instead of looking only at where a cancer started, healthcare teams can evaluate biomarkers and tumor biology to help personalize treatment decisions and identify clinical trial opportunities. This may allow therapies to be applied across multiple cancer types if they share the same molecular target.

Healthcare teams may also study:

Biomarkers

Genetic mutations

Tumor biology

Proteins

Molecular features

How cancer cells grow and behave



Who May Be Affected?

Cancer can affect anyone. While risk factors vary by cancer type, factors such as age, genetics, family history, environmental exposures, and lifestyle may influence risk.

Common Signs and Symptoms

Because pan-tumor is not a specific cancer, there is no single set of signs and symptoms. Symptoms depend on where the cancer originates and whether it has spread.

While this is not an exhaustive list, some common cancer-related symptoms seen across many tumor types include:

Unexplained weight loss

Persistent fatigue

Pain that does not go away

Loss of appetite

Recurring infections

Persistent fever or night sweats

New or worsening lumps or swelling

Persistent cough or shortness of breath

Changes in bowel or bladder habits

Unexplained bleeding or bruising

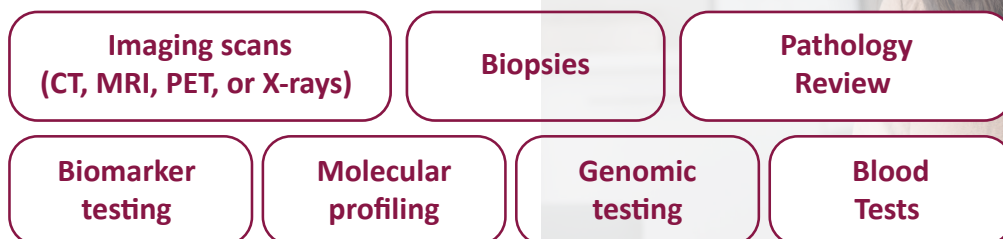
Difficulty swallowing

Persistent nausea or vomiting

How Is Cancer Diagnosed?

Because pan-tumor care focuses on understanding both where a cancer began and the biology of the tumor, diagnosis often involves several types of testing.

Testing may include:



These tests help healthcare teams identify the type of cancer, understand how it behaves, and determine whether specific biomarkers or genetic changes may help guide treatment decisions.

Why Is Pan-Tumor Research Important?

Researchers have discovered that cancers from different parts of the body may sometimes respond to similar treatments because they share certain biomarkers or molecular features.

For example, two people with different types of cancer may have tumors that share a specific genetic alteration. That shared characteristic may help guide treatment decisions or determine whether a clinical trial could be a good option.

This growing understanding is helping move cancer care toward a more personalized approach, often called precision medicine.

What Is Precision Medicine?

Precision medicine is an approach to cancer care that considers the unique biology of a person's tumor rather than relying only on where the cancer started.

By combining information about:



Healthcare teams may be able to develop more personalized treatment plans.

Precision medicine continues to evolve through research and clinical trials, helping improve options for many people living with cancer.

Understanding Biomarkers and Precision Medicine

Biomarkers are biological clues found in tumors, blood, genes, or proteins that may help healthcare teams better understand how a person's cancer may behave, predict how it may respond to certain treatments, and identify treatment approaches that may be most appropriate.

Every cancer is unique. Even two people diagnosed with the same type of cancer may have tumors with different biomarkers, which can influence treatment decisions and clinical trial opportunities.

Advances in precision medicine allow healthcare teams to look beyond where cancer started and focus on the unique biology of the tumor to create a more personalized approach to care.

Depending on the cancer type, biomarker testing may help healthcare teams:

Better understand the biology of your cancer.

Identify treatment options that may be appropriate for your specific tumor.

Predict how a cancer may respond to certain therapies.

Determine whether targeted therapies or immunotherapies may be options.

Identify eligibility for clinical trials studying new treatments.

Support more informed conversations with your healthcare team.

Common types of biomarker testing include:

Genomic testing

Looks for changes or mutations in genes that may influence cancer growth.

Tumor/molecular profiling

Examines multiple biomarkers within a tumor to better understand its characteristics.

Next-generation sequencing (NGS)

An advanced technology that analyzes many genes at one time to identify actionable biomarkers.

Protein biomarker testing (PD-L1 or HER2)

Measures proteins that may help guide treatment decisions.

Microsatellite Instability (MSI) / Mismatch Repair (MMR) testing

Evaluates how well cells repair DNA damage and may help identify certain treatment options.

It's OK for Patients to Ask About Biomarker Testing

Biomarker testing has become an important part of cancer care for many patients. Not every test is appropriate for every cancer type, but having a conversation with your healthcare team may help you better understand your options.

Consider asking:

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What biomarkers were found?

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What do my results mean?

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How do my results affect my treatment options?

☐

Would additional genomic or molecular testing be helpful?

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Could my biomarker results make me eligible for a clinical trial?

Clinical Trials Throughout Your Cancer Journey

Clinical trials are research studies that help researchers evaluate new ways to prevent, diagnose, and treat cancer. They play an important role in advancing cancer care and may be available at many different points throughout a person's journey.

Depending on your diagnosis, treatment history, and biomarker results, a clinical trial may be an option:

At diagnosis, when standard treatments are being considered

Before surgery (neoadjuvant therapy) to study new treatment approaches

After surgery (adjuvant therapy) to reduce the risk of cancer returning

If cancer progresses or recurs, when additional treatment options are needed

During survivorship, to improve quality of life, manage symptoms, or reduce long-term side effects

Many modern clinical trials use biomarker testing and precision medicine approaches to identify therapies that may be most appropriate for specific groups of patients.

Participation is always voluntary, and every clinical trial follows strict safety and ethical standards designed to protect participants.

Caring for Your Emotional Well-Being

Cancer diagnosis can affect many aspects of life beyond physical health. It is normal to experience a range of emotions throughout your journey, including uncertainty, fear, stress, or changes in relationships and daily routines.

Taking care of your emotional well-being is an important part of whole-person cancer care. Many people find support through counseling, peer support groups, patient navigation services, faith communities, or trusted family and friends.

If you are looking for strategies to support your emotional health, connect with others, or access additional resources, refer to the Mental Health & Well-Being resource available through SPARK.

Remember

Every person's cancer journey is different. Advances in biomarker testing, precision medicine, and clinical research are helping create more personalized approaches to cancer care than ever before.

By asking questions, understanding your options, and working closely with your healthcare team, you can play an active role in decisions about your care.

Knowledge supports informed decision-making throughout the cancer care journey.



SPARK is committed to empowering individuals through education, trusted resources, and equitable access to cancer clinical trials and personalized cancer care.



**Scan to Access
Additional
Resources**



Disclaimer: This information is provided for educational purposes only and is not intended to replace medical advice, diagnosis, or treatment. Treatment decisions should be made in consultation with your healthcare team. Medical knowledge and treatment recommendations may change over time.





Treatment Options May Include

Every person's treatment plan is unique.

Depending on the type of cancer, biomarker results, overall health, and treatment goals, treatment options may include:

Surgery

Chemotherapy

Radiation therapy

Immunotherapy

Targeted therapy

Hormone therapy

Supportive or palliative care

Clinical trials

Healthcare teams consider many factors when building a treatment plan, including potential benefits, risks, side effects, quality of life, and personal preferences.

Did You Know?

Two people with the same type of cancer may receive different treatments because their tumors have different biomarkers. Understanding your biomarker results can help you and your healthcare team make more personalized treatment decisions.

Clinical Trials in Pan-Tumor Cancer Care

Advances in cancer research are helping healthcare teams better understand that cancers arising in different parts of the body may share similar biomarkers or molecular characteristics. As a result, some clinical trials now focus on these shared features rather than where the cancer began.

Pan-tumor clinical trials may evaluate new therapies for people whose cancers have specific biomarkers or genetic alterations, regardless of the tumor location. Biomarker testing and molecular profiling often play an important role in identifying whether a clinical trial may be appropriate.

If you are interested in learning more about clinical trials, including how they work, participant protections, and questions to ask your healthcare team, refer to the Understanding Clinical Trials resource available through SPARK.

What Can You Do Next?

Learning about pan-tumor cancer care is an important first step. Every person's cancer journey is unique, and understanding your options can help you make informed decisions alongside your healthcare team.

Consider taking these next steps:

Talk with your healthcare team.

Ask questions about your diagnosis, treatment options, and what they mean for your individual situation.

Ask about biomarker testing.

Understanding your tumor's unique characteristics may help guide treatment decisions and identify clinical trial opportunities.

Discuss whether a clinical trial may be right for you.

Clinical trials may be available at many stages of cancer care and may offer access to innovative treatments.

Build your support network.

Lean on family, friends, caregivers, patient navigators, and advocacy organizations for information and encouragement.

Take care of your emotional well-being.

Ask about counseling, support groups, financial resources, or survivorship services if you need additional support.

Keep a record of your care.

Bring a notebook or use your phone to write down questions, test results, medications, and important information before and after appointments.

Continue learning.

Reliable information can help you better understand your diagnosis and feel more confident participating in decisions about your care.