

Metastatic Cancer

What Is Metastatic Cancer?

The main reason that cancer is so serious is its ability to spread in the body. Cancer cells can spread locally by moving into nearby normal tissue. Cancer can also spread regionally, to nearby lymph nodes, tissues, or organs. And it can spread to distant parts of the body. When this happens, it is called metastatic cancer. For many types of cancer, it is also called stage IV (four) cancer. The process by which cancer cells spread to other parts of the body is called metastasis.

When observed under a microscope and tested in other ways, metastatic cancer cells have features like that of the primary cancer and not like the cells in the place where the cancer is found. This is how doctors can tell that it is cancer that has spread from another part of the body.

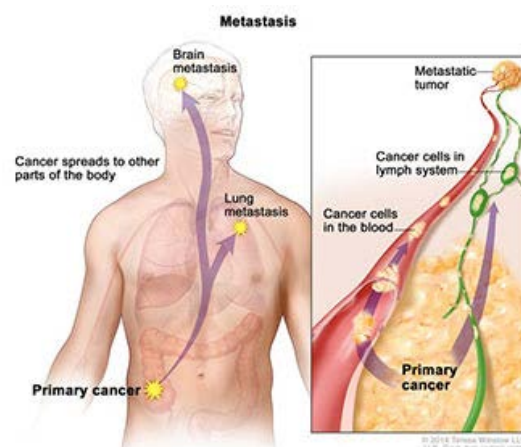
Metastatic cancer has the same name as the primary cancer. For example, breast cancer that spreads to the lung is called metastatic breast cancer, not lung cancer. It is treated as stage IV breast cancer, not as lung cancer.

Sometimes when people are diagnosed with metastatic cancer, doctors cannot tell where it started. This type of cancer is called cancer of unknown primary origin, or CUP. See the [Carcinoma of Unknown Primary](#) page for more information.

When a new primary cancer occurs in a person with a history of cancer, it is known as a second primary cancer. Second primary cancers are rare. Most of the time, when someone who has had cancer has cancer again, it means the first primary cancer has returned.

How Cancer Spreads

Metastasis: How Cancer Spreads



In metastasis, cancer cells break away from where they first formed (primary cancer), travel through the blood or lymph system, and form new tumors (metastatic tumors) in other parts of the body. The metastatic tumor is the same type of cancer as the primary tumor.



During metastasis, cancer cells spread from the place in the body where they first formed to other parts of the body.

Cancer cells spread through the body in a series of steps. These steps include:

1. Growing into, or invading, nearby normal tissue
2. Moving through the walls of nearby lymph nodes or blood vessels
3. Traveling through the lymphatic system and bloodstream to other parts of the body
4. Stopping in small blood vessels at a distant location, invading the blood vessel walls, and moving into the surrounding tissue
5. Growing in this tissue until a tiny tumor forms
6. Causing new blood vessels to grow, which creates a blood supply that allows the tumor to continue growing

Most of the time, spreading cancer cells die at some point in this process. But, as long as conditions are favorable for the cancer cells at every step, some of them are able to form new tumors in other parts of the body. Metastatic cancer cells can also remain inactive at a distant site for many years before they begin to grow again, if at all.

Where Cancer Spreads

Cancer can spread to most any part of the body, although different types of cancer are more likely to spread to certain areas than others. The most common sites where cancer spreads are the bone, liver, and lung. The following list shows the most common sites of metastasis, not including the lymph nodes, for some common cancers:

Common Sites of Metastasis

Cancer Type	Main Sites of Metastasis
Bladder	Bone, liver, lung
Breast	Bone, brain, liver, lung

Cancer Type	Main Sites of Metastasis
Colon	Liver, lung, peritoneum
Kidney	Adrenal gland, bone, brain, liver, lung
Lung	Adrenal gland, bone, brain, liver, other lung
Melanoma	Bone, brain, liver, lung, skin, muscle
Ovary	Liver, lung, peritoneum
Pancreas	Liver, lung, peritoneum
Prostate	Adrenal gland, bone, liver, lung
Rectal	Liver, lung, peritoneum
Stomach	Liver, lung, peritoneum
Thyroid	Bone, liver, lung
Uterus	Bone, liver, lung, peritoneum, vagina

Symptoms of Metastatic Cancer

Metastatic cancer does not always cause symptoms. When symptoms do occur, their nature and frequency will depend on the size and location of the metastatic tumors. Some common signs of metastatic cancer include:

- Pain and fractures, when cancer has spread to the bone
- Headache, seizures, or dizziness, when cancer has spread to the brain
- Shortness of breath, when cancer has spread to the lung
- Jaundice or swelling in the belly, when cancer has spread to the liver

Treatment for Metastatic Cancer

Once cancer spreads, it can be hard to control. Although some types of metastatic cancer can be cured with current treatments, most cannot. Even so, there are treatments for all patients with metastatic cancer. The goal of these treatments is to stop or slow the growth of the cancer or to relieve symptoms caused by it. In some cases, treatments for metastatic cancer may help prolong life.

The treatment that you may have depends on your type of primary cancer, where it has spread, treatments you've had in the past, and your general health. To learn about treatment options, including clinical trials, find your type of cancer among the PDQ® Cancer Information Summaries for [Adult Treatment](#) and [Pediatric Treatment](#).

When Metastatic Cancer Can No Longer Be Controlled

If you have been told you have metastatic cancer that can no longer be controlled, you and your loved ones may want to discuss end-of-life care. Even if you choose to continue receiving treatment to try to shrink the cancer or control its growth, you can always receive palliative care to control the symptoms of cancer and the side effects of treatment. Information on coping with and planning for end-of-life care is available in the [Advanced Cancer](#) section.

Ongoing Research

Researchers are studying new ways to kill or stop the growth of primary and metastatic cancer cells. This research includes finding ways to help your immune system fight cancer. Researchers are also trying to find ways to disrupt the steps in the process that allow cancer cells to spread. Visit the [Metastatic Cancer Research](#) page to stay informed of ongoing research funded by NCI.

Related Resources

[Advanced Cancer](#)

[Coping with Advanced Cancer](#)

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