



Metastatic Cancer: When Cancer Spreads

What Is Metastatic Cancer?

Cancer that spreads from where it started to a distant part of the body is called metastatic cancer. For many types of cancer, it is also called stage 4 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 metastatic 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 4 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 [Carcinoma of Unknown Primary](#) for more information.

How Cancer Spreads

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

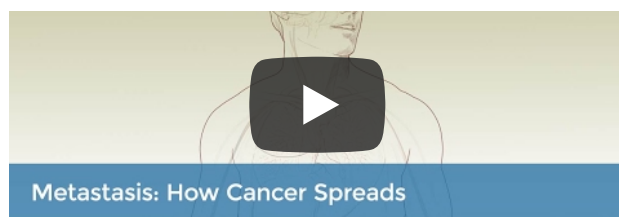
1. growing into, or invading, nearby normal tissue
2. moving through the walls of nearby lymph nodes or blood vessels
3. traveling through the lymphatic system and bloodstream to other parts of the



The Challenges of Living with Metastatic Cancer

Survivors describe "scanxiety," financial concerns, and other issues.

Metastasis: How Cancer Spreads



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During metastasis, cancer cells spread from the place in the body where they

body

first formed 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 metastatic tumor to continue growing



[Play the audio-described version of this video.](#)

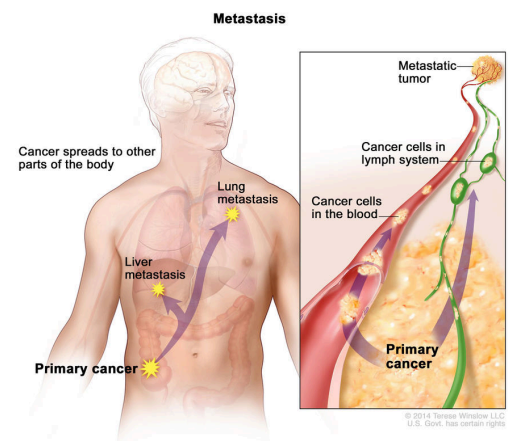
Most of the time, spreading cancer cells die at some point in this process. But, as long as conditions are favorable for the cancer cells at every step, some of them are able to form new tumors in other parts of the body. Metastatic cancer cells can also remain inactive at a distant site for many years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

Where Cancer Spreads

Cancer can spread to almost 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 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 Where Cancer Spreads

Cancer Type	Main Sites of Metastasis
Bladder	Bone, liver, lung
Breast	Bone, brain, liver, lung
Colon	Liver, lung, peritoneum
Kidney	Adrenal gland, bone, brain, liver, lung
Lung	Adrenal gland, bone, brain, liver, other lung



In metastasis, cancer cells break away from where they first formed and form new tumors in other parts of the body.

Credit: © Terese Winslow

Cancer Type	Main Sites of Metastasis
Melanoma	Bone, brain, liver, lung, skin, muscul
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, vagin

Symptoms of Metastatic Cancer

Metastatic cancer does not always cause symptoms. When symptoms do occur, what they are like and how often you have them 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

There are treatments for most types of metastatic cancer. Often, the goal of treating metastatic cancer is to control it by stopping or slowing its growth. Some people can live for years with metastatic cancer that is well controlled. Other treatments may improve the

quality of life by relieving symptoms. This type of care is called palliative care. It can be given at any point during treatment for cancer.

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 in the [treatment information for adult](#) and [childhood cancers](#).

When Metastatic Cancer Can No Longer Be Controlled

If you have been told your cancer can no longer be controlled, you and your loved ones may want to discuss end-of-life care. Whether or not you choose to continue treatment 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. See [Advanced Cancer](#) for information on coping with and planning for end-of-life care.

Ongoing Research about Metastatic Cancer

Researchers are studying new ways to kill or stop the growth of primary and metastatic cancer cells. These ways include:

- helping your immune system fight cancer
- disrupting the steps in the process that allow the cancer cells to spread
- targeting specific genetic changes in tumors

Visit the [Metastatic Cancer Research](#) page on this site to stay informed of ongoing research funded by NCI.

Related Resources

[Advanced Cancer](#)

[Coping with Advanced Cancer: Choices for Care Near the End of Life](#)

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