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How is breast cancer staged?

Breast cancer is divided into five main stages, O through 4. The stages are based on:

- The size of the tumor
- The number of lymph nodes involved
- How much the cancer has spread

When breast cancer spreads or becomes worse, this is known as PROGRESSION.

The American Joint Committee on Cancer (AJCC) developed a widely-used system to stage breast cancer. Using this system, Stages 0-2 are early forms of the disease.

**Advanced breast cancer includes the most serious of the five possible stages, Stages 3 and 4:**

- **Stage 3** is locally advanced breast cancer, meaning the cancer has spread to lymph nodes and/or other tissue in the breast, but not to further sites in the body.
- **Stage 4** is metastatic breast cancer. At this stage, the cancer has spread to other sites of the body, such as the liver, lungs, bones, brain, and/or others.
What is metastasis and how does it happen?

Metastasis happens when cancer cells break away from a primary tumor and enter the bloodstream or lymphatic system (the system that produces, stores and carries the cells that fight infections).

When cancer cells spread and form a new tumor in a different organ, the new tumor is a metastatic tumor, the cells of which come from the original tumor. This means, for example, that if breast cancer spreads to the lungs, the metastatic tumor in the lung is made up of cancerous breast cells (not lung cells). In this case, the disease in the lungs is metastatic breast cancer (not lung cancer).

The most common sites of metastasis from solid breast cancer tumors are the lungs, bones and liver. Cancer can spread to other parts of the body, too.

Under a microscope, metastatic breast cancer cells generally look the same as the cancer cells in the breast, so you should consult an oncologist who specializes in the treatment of breast cancer regardless of where the cancer has spread.
How does a doctor know whether a cancer is a primary or a metastatic tumor?

To determine if a tumor is primary or metastatic, a pathologist examines a sample of the tumor. In general, cancer cells look like abnormal versions of cells in the tissue where the cancer first appeared. Using specialized diagnostic tests, a pathologist is often able to tell where the cancer cells came from.

Doctors may determine the primary site of cancer in a few ways. They may look for:

- **Markers**, which are a diagnostic indication that the disease may develop or
- **Antigens**, substances that cause the immune system to have a specific immune response

Metastatic cancer may be found before or at the same time as the primary tumor, or months or years later. When a new tumor is found in a patient who has been treated for cancer in the past, it is often a metastasis versus another primary tumor.
Some people with metastatic cancer do not have symptoms. Their metastases may be found by tests, which may be performed for other reasons such as:

X-rays
Magnetic resonance imaging (MRI)
Computed tomography (CT scan)
Positron emission tomography (PET scan)
Bone scan

When symptoms do occur, the type and frequency depend on the size and location of the metastasis. For example, cancer that spreads to the bones is likely to cause pain and can lead to bone fractures. Shortness of breath may be a sign of lung involvement.

Sometimes a person’s primary cancer is discovered only after the metastatic tumor causes symptoms when spreading to that body organ.
Almost everyone who has had cancer fears that one day the cancer will come back, or recur. The following sites help explain what is happening when someone has a recurrence, how you are likely to feel about it and how you might approach the challenge ahead.

Dealing with Cancer Recurrence
American Society of Clinical Oncology (ASCO)

Recurrent and Metastatic Breast Cancer
Breastcancer.org

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| How is breast cancer staged? | Glossary of Breast Cancer Terminology  
*Cancer.org* |
|-------------------------------|--------------------------------------------------|
| What is metastasis and how does it happen? | Guide to Understanding Treatment Decisions  
*Living Beyond Breast Cancer (LBBC)* |
| How does a doctor know whether a cancer is a primary or a metastatic tumor? | HER2 Status  
*Breastcancer.org* |
| What are the symptoms of metastatic cancer? | Hormone Receptor Status  
*Breastcancer.org* |
| What is a recurrence? | Metastatic Navigator: A Young Woman’s Guide to Living with Metastatic Breast Cancer  
*Young Survival Coalition (YSC)* |
| **Additional information** | Understanding your Pathology Report  
*Living Beyond Breast Cancer (LBBC)* |
| **Sources** | What is MBC?  
*Metastatic Breast Cancer Network (MBCN)* |
|  | Your Guide to Secondary Breast Cancer  
*Breast Cancer Now* |

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Novartis Pharma AG
CH-4002 Basel Switzerland
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