

## Topic #4: Follow-up Tumor Marker Tests and Imaging Tests for People Treated for Breast Cancer

### Background

Tumor markers, also called serum markers or biomarkers, are substances found at higher than normal levels in the blood, urine, or body tissues of some people with cancer. In specific situations, biomarker tests can be used for many reasons, including to screen healthy people who have no symptoms of cancer, help diagnose several different types of cancer, determine the prognosis for a person with cancer, monitor how well cancer treatment is working, and watch for a recurrence (cancer that has come back after treatment). However, many tumor markers can be at higher than normal levels in people without cancer, or a person with cancer could have low levels of tumor markers. For this reason, they are always used along with other tests.

In breast cancer care, three tumor markers -- cancer antigen 15-3 (CA 15-3), cancer antigen 27.29 (CA 27.29), and carcinoembryonic antigen (CEA) -- have been used to help monitor metastatic breast cancer (advanced disease), but they have not been found to be useful to find a breast cancer recurrence or lengthen lives in patients who had early-stage breast cancer and who are now disease-free.

Imaging tests, such as CT, PET, and bone scans, have also been used to watch for a recurrence of breast cancer. These scans can be helpful to find areas of cancer in the body if a person has symptoms that the cancer has come back or spread. However, using these scans to try to find a recurrence early in people who have no symptoms has not been shown to lengthen lives.

### Recommendation

ASCO recommends that the following tests and imaging tests are not used to watch for a recurrence when a person has no signs or symptoms that the breast cancer has returned:

- Tumor marker tests for CEA, CA 15-3, and CA 27.29
- CT scan
- PET scan
- Bone scan

These tests often lead to over-treatment and wrong diagnoses, including increased anxiety, which significantly harm a person's quality of life.

Regular physical exams and [mammography](#) [1] are recommended to find a breast cancer recurrence.

### What this means for patients

Because tumor marker levels cannot be used alone to diagnose a recurrence and imaging tests often find abnormal areas that are not cancer, more testing is needed for anyone with abnormal results on these tests. For many patients, the waiting and uncertainty that comes along with additional testing only causes more worry. If you are considering these tumor marker or imaging tests after treatment for breast cancer, talk with your doctor about the goals of testing and how you will be best monitored for a possible recurrence as part of your survivorship follow-up care.

### Questions to ask your doctor

- After treatment for breast cancer, what follow-up care should I have?
- What tests will I need and how often?
- What are the goals of each test?
- What are the risks, benefits, and cost of these tests?
- What signs and symptoms should I report to you right away? What should I report at my regular follow-up visits?

### For More Information

[Consumer Reports: Imaging and Tumor Marker Tests for Breast Cancer](#) [2] (Topics 3 and 4; PDF)

[What to Know: ASCO's Guideline for Follow-Up Care for Breast Cancer](#) [3]

[What to Know: ASCO's Guideline on Tumor Markers for Breast Cancer](#) [4]

Understanding Tumor Markers [5]

Guide to Breast Cancer [6]

Survivorship [7]

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**Links:**

[1] <http://www.cancer.net/node/24584>

[2] <http://consumerhealthchoices.org/wp-content/uploads/2013/02/ChoosingWiselyBreastCancerTestsASCO-ER.pdf>

[3] <http://www.cancer.net/node/24832>

[4] <http://www.cancer.net/node/25728>

[5] <http://www.cancer.net/node/24730>

[6] <http://www.cancer.net/node/18618>

[7] <http://www.cancer.net/node/22>