

Name of the test

CA 15-3

What is this test used for?

This test measures the amount of CA 15-3 in the blood. CA 15-3 is a protein produced by breast cells. Breast cancer often increases its production.

CA 15-3 can be used as a tumor marker. In localized forms of breast cancer, CA 15-3 is elevated in only 10% of patients, however it is increased in 80% of patients with metastatic breast cancer.

CA 15-3 may be also elevated due to some other types of cancer (ex. colon cancer, lung cancer, ovarian cancer, prostate cancer) and diseases.

CA 15-3 level can be increased even in healthy individuals. For this reason, CA 15-3 is not used for breast cancer screening, as this test lacks specificity and sensitivity.

When is the test ordered?

CA 15-3 test is mainly ordered, when a patient has later stage breast cancer. Usually this test is not performed when cancer is detected early, because CA 15-3 levels are not increased in early stages of breast cancer.

CA 15-3 can be used as a tumor marker, only when cancer has elevated its level. In this case, CA 15-3 test is periodically ordered to monitor effectiveness of treatment and detect recurrence.

How is this test performed?

A blood sample is taken from a vein.

How to prepare for the test

No preparation is needed.

Interpretation of results

In general, CA 15-3 level depends on the size and stage of cancer - CA 15-3 is increased more in large and late stage cancers.

In metastatic breast cancer, CA 15-3 is especially high when the cancer has spread to bones and liver.

If CA 15-3 levels decrease after receiving treatment for breast cancer, this means that therapy has been successful. If after treatment, CA 15-3 level starts increasing again, this may indicate recurrence of the disease.

Slight elevation of CA 15-3 may be caused by other types of cancer, as well as some non-cancerous diseases.

Normal level of CA 15-3 does not exclude breast cancer. 20-25% of patients with breast cancer do not have elevated CA 15-3.