

### Gene Expression Profiling Tests are:

a form of personalized medicine to learn more about your cancer and to customize your treatment.

These tests are typically for breast cancer patients with early stage estrogen receptor-positive (ER+) and lymph node negative cancer or less than 2 lymph nodes. The test is done on breast cancer cells typically after surgery to look at different gene patterns. This process is sometimes called gene expression profiling.

The results can help predict if certain early stage breast cancers are likely to recur.

Genomic test results, when considered with other features of the breast cancer, can help you and your doctor make a more informed decision about the effectiveness of chemotherapy or other treatments to reduce the risk of recurrence.

This is not the same as genetic testing for cancer risk.

Content adapted from websites below and Smith A, Farrah K. Gene Expression Profiling Tests for Breast Cancer: A Rapid Qualitative Review [Internet]. Ottawa (ON): Canadian Agency for Drugs and Technologies in Health; 2019 Apr 18.

### Purpose of tests

These tests help predict the risk of recurrence of a current cancer. Knowing the risk of recurrence may be important information to decide if a patient may benefit from more aggressive treatment.

### Who is appropriate to consider for test

Patients should discuss if these tests are appropriate for them with their cancer care medical providers.

- Not indicated for chemotherapy based on other factors
- Smaller tumors, usually smaller than 5 cm
- Early stage, usually Stage I or II
- Usually only for HER2 negative breast cancer

### Example tests

**Oncotype DX®** - It is used to predict the risk of recurrence of early-stage, hormone-receptor-positive breast cancer.

**MammaPrint®** - test is used to predict the risk of recurrence within 10 years after diagnosis of stage I or stage II breast cancer that is hormone-receptor-positive or hormone-receptor-negative.

**Prosigna Breast Cancer Prognostic Gene Signature Assay®** - is used to predict the risk of distant recurrence for postmenopausal women within 10 years of diagnosis of early-stage cancer after 5 years of hormonal therapy.

**EndoPredict®** - is used to predict the risk of distant recurrence of early-stage, hormone-receptor-positive, HER2-negative breast cancer that is either node-negative or has up to three positive lymph nodes.

**Breast Cancer Index Test®** is used to predict the risk of node-negative, hormone-receptor-positive breast cancer coming back 5 to 10 years after diagnosis.

**Discuss with your medical provider if this type of test is appropriate for your situation.**

If you are looking for genetic testing for cancer risk, see: <https://www.cancer.net/navigating-cancer-care/cancer-basics/genetics>

### Resources for Additional Information:

- [American Cancer Society, Breast Cancer Gene Expression Tests](#)
- [Breastcancer.org, MammaPrint Test](#)
- [Breastcancer.org, Women Diagnosed With Breast Cancer Consider Genomic Tests Hugely Important, but Many Don't Understand Results](#)
- [NIH, The TAILORxBreast Cancer Trial](#), originally published by the National Cancer Institute

### Recursos en Español:

- [American Cancer Society, Pruebas para la expresión genética del cáncer de seno](#)