

# Genetic Testing Information for Breast Surgeons

## Impact of Genetic Testing on Patient Care

An inherited gene mutation may lead to a predisposition to certain cancers, sometimes prompting consideration of prophylactic bilateral mastectomies for risk-reduction. For certain cancer patients, genetic testing may direct other therapies as well, including radiation and systemic therapy options.

Additionally, breast cancer patients with gene mutations associated with hereditary cancer may be at an increased risk to develop other primary cancers (e.g. ovarian cancer or colon cancer). Genetic testing can help elucidate these risks and prompt cancer risk management in the form of risk-reducing surgery, or increased surveillance.

Genetic testing for hereditary cancer can be a useful tool for relatives of affected patients as well. It is recommended that at-risk relatives of individuals with gene mutations associated with hereditary cancer pursue genetic testing to clarify their personal cancer risks and appropriate clinical follow up.

## Genetic Testing Options for Hereditary Cancer

Advances in genetic testing technology allow for multiple genes to be analyzed at once (referred to as panel testing). Hereditary cancer testing ranges from targeted cancer panels (i.e., breast cancer panels) to larger pan-cancer panels that analyze genes associated with a wider spectrum of cancers.

## When to Consider Genetic Testing for Breast Surgery Patients

- American Society of Breast Surgeons recommendation: Any patient with a diagnosis of breast cancer
- National Comprehensive Cancer Network (NCCN):
  - Breast cancer diagnosed <45 years of age

- Two primary breast cancers if one is diagnosed <50 years of age
- Triple negative breast cancer <60 years of age
- Metastatic breast cancer at any age
- Personal/family history of bilateral cancers/multiple primary cancers in one individual, early-onset cancer (diagnosed <50 years), and multiple family members with the same or related types of cancers (e.g. breast and ovarian or pancreatic cancers).

## Insurance and Financial Options

Most insurance companies cover the cost of genetic testing for patients who meet criteria. Financial assistance may be available for patients without insurance. Competitive self-pay options are also available.

## Resources

For more information about genetic testing and genetic counseling, visit the [UT Southwestern Cancer Genetics for Health Professionals site](#).

For additional resources on coordinating genetics counseling and testing for patients, or providing genetics services, visit the [Genetic Screening and Navigation Toolkit](#).

To find a genetic counselor near you, visit the National Society of Genetic Counselors [Find a Genetic Counselor Tool](#).