References


One in eight women will be diagnosed with breast cancer in her lifetime. Proper testing will assist physicians in diagnosing and treating current cancer and determining hereditary status in their patients.

Breast Cancer Subtypes

It is important to know the subtype of breast cancer in women for guiding treatment and predicting survival. About 5% to 10% of all breast cancers are thought to be hereditary. If hereditary breast cancer is suspected, BRCA1 and BRCA2 testing is recommended.

Breast Cancer Testing

**DIAGNOSTIC, PROGNOSTIC AND PREDICTIVE MARKER TESTING**
- Circulating Tumor Cell Count (0093399)
- Cytokeratin 8,18 Low Molecular Weight (CAM 5.2) by Immunohistochemistry (2003493)
- DNA Cell Cycle Analysis—Ploidy and S-Phase (0095155)
- E-Cadherin by Immunohistochemistry (2003869)
- ERBB2 (HER2) (HercepTest) by Immunohistochemistry (2007332)
- ERBB2 (HER2/neu) (HercepTest) by Immunohistochemistry, Tissue with Reflex to FISH if 2+ (0049178)
- ERBB2 (HER2/neu) (HercepTest) with Interpretation by Immunohistochemistry, Tissue (0049174)
- ERBB2 (HER2/neu) Gene Amplification by FISH, Tissue (2008603)
- Estrogen/Progesterone Receptor with Interpretation by Immunohistochemistry (0049210)
- Estrogen Receptor (ER) by Immunohistochemistry (2004516)
- HER2/neu Quantitative by ELISA (2004672)
- Keratin 903 (K903) High Molecular Weight by Immunohistochemistry (2003978)
- p53 with Interpretation by Immunohistochemistry (0049250)
- PAX8 by Immunohistochemistry (2010787)
- Progesterone Receptor (PR) by Immunohistochemistry (2004525)

**HEREDITARY CANCER TESTING**
- Breast and Ovarian Hereditary Cancer Syndrome (BRCA1 and BRCA2) Sequencing and Deletion/Duplication (2011949)
- Breast and Ovarian Hereditary Cancer Syndrome (BRCA1 and BRCA2) Sequencing (2011954)
- Hereditary Breast and Ovarian Cancer Panel, Sequencing and Deletion/Duplication (2012032)
- Hereditary Cancer Panel, Sequencing and Deletion/Duplication (2012032)
- Familial Mutation, Targeted Sequencing (2001961)

**PHARMACOGENETIC TESTING**
- Cytochrome P450 (CYP2D6) 15 Variants and Gene Duplication (2014547)
- Cytochrome P450 2C19, CYP2C19—9 Variants (2012769)
- Cytochrome P450 3A5 Genotyping, CYP3A5, 2 Variants (2012740)
- Cytochrome P450 Genotype Panel (2013098)
- Opioid Receptor, Mu (OPRM1) Genotype, 1 Variant (2008767)

**Hormone Receptor HR+/HER2-**
- Typically treated with hormone receptor blockade
- Diagnostic testing
- Prognostic and predictive testing
- Pharmacogenetic testing
- Risk of recurrence
- 70% of all breast cancer cases

**HR+/HER2+**
- Treated with anti-HER2 targeted therapy
- If HR+, also treated with hormone receptor blockade
- Diagnostic testing
- Prognostic and predictive testing
- Pharmacogenetic testing
- 15% of all breast cancer cases

**HR+/HER2+**
- Treated with anti-HER2 targeted therapy
- If HR+, also treated with hormone receptor blockade
- Diagnostic testing
- Prognostic and predictive testing
- Pharmacogenetic testing
- 15% of all breast cancer cases

**HR-+/HER2**
- Hormone receptor blockade and anti-HER2 targeted therapy are not effective
- Diagnostic testing
- Prognostic and predictive testing
- Pharmacogenetic
- Hereditary testing
- 15% of all breast cancer cases