



Family History of Cancer

And How to Evaluate Your Patient's Risk

Breast Cancer

General Population Risk*

12%

Familial Risk*

Based on Family History Alone

40%

Hereditary Risk*

Hereditary Breast & Ovarian Cancer (HBOC) Syndrome

87%

25% 50% 75% 100%

MANAGEMENT

General Population:

- Regular mammography screening starting at age 45

Familial Risk:

- Increased surveillance: at age 30, start clinical breast exams every 6-12 months, annual mammograms (starting age individualized based on the earliest age of onset in the family), and consider annual breast MRI
- Risk Reduction: Consider risk reduction strategies

Hereditary Risk:

- Increased surveillance: Clinical breast exam every 6-12 months start at age 25 and yearly mammograms and MRI starting at age 25 (or individualized based on earliest age of onset in family)
- Risk Reduction: Consider tamoxifen or raloxifene, or risk-reducing surgery

Ovarian Cancer

General Population Risk*

<2%

Familial Risk*

11%

Based on Family History Alone

Hereditary Risk*

Hereditary Breast & Ovarian Cancer (HBOC) Syndrome

44%

25% 50% 75% 100%

MANAGEMENT

General Population:

- No published recommendations or guidelines

Familial Risk:

- No published recommendations or guidelines

Hereditary Risk:

- Increased surveillance: Enhanced gynecologic exams
- Risk-reducing drug therapy
- Risk-reducing surgery

* Percentages are lifetime risks for unaffected patients

Know your patients' **individual risk** to give them the best possible **personalized care**.

The AEL Difference

AEL is proud to offer BRCA testing utilizing Next Generation Sequencing Technology with a validated **99.98% Sensitivity** and **99.98% Specificity**.

- ✓ Supported by 20+ clinical and genetic variant databases, updated regularly to offer the most up-to-date clinical annotations available.
- ✓ Clinical interpretations are drawn from more than 20 academic medical centers, world-class pathologists, and dedicated Variant Scientists working together to ensure BRCA testing quality.

Testing for mutations in BRCA1 and BRCA2 is recommended when a person's individual or family history suggests the possible presence of a harmful mutation:

Important Risk Factors Include:

- Breast cancer diagnosed before age 50
- Cancer in both breasts in the same woman
- Ovarian cancer at any age
- Multiple breast cancers
- 2+ primary types of BRCA1- or BRCA2-related cancers in a single family member
- Ashkenazi Jewish ethnicity
- Male breast cancer

USPSTF Recommendation

The USPSTF recommends that primary care providers screen women who have family members with breast, ovarian, tubal, or peritoneal cancer with 1 of several screening tools designed to identify a family history that may be associated with an increased risk for potentially harmful mutations in breast cancer susceptibility genes (BRCA1 or BRCA2).

Patient Financial Assistance

AEL accepts all major insurance carriers and will work with all patients to insure cost does not prevent them from receiving these results.

Please call 800.123.4567 for more information.

References:

Chen S, et al. Meta-analysis of BRCA1 and BRCA2 penetrance. *J Clin Oncol*. 2007. 25(11):1329-1333.
 Ferla R, et al. Founder mutations in BRCA1 and BRCA2 genes. *Annals of Oncology*. 2007. 18;(Supplement 6):vi93-vi98
 Metcalf KA et al. Breast Cancer risk in women with a family history of breast cancer or ovarian cancer who have tested negative for BRCA1 or BRCA2 mutation. *BR J Cancer*. 2009;Jan27; 100(2): 421-5
 Kauf N. et al. Risk of ovarian cancer in BRCA1 and BRCA2 mutation-negative hereditary breast cancer families. *J Natl Cancer Inst* 2005;97(18): 1382
 Saslow D, et al American Cancer Society guidelines for breast cancer screening with MRI as an adjunct to mammography
<http://www.cancer.org/acs/groups/content/@research/documents/document/acspc-046381.pdf>
<https://cancerstatisticscenter.cancer.org>

Resources:

National Society of Genetic Counselors: www.nsgc.org
 American Cancer Society: www.cancer.org
 National Cancer Institute: www.cancer.gov/cancertopics/genetics
 US Preventative Task Force: <https://www.uspreventiveservicestaskforce.org/>
 National comprehensive Cancer network: <https://www.nccn.org/>

