BARD1 Mutations

What You Should Know About BARD1 Mutations
Individuals with a BARD1 gene mutation may have an increased chance to develop breast cancer. There is currently limited information regarding the specific lifetime cancer risks and management recommendations for individuals with BARD1 mutations.

Cancer Risks Associated with a BARD1 Mutation
Females with a BARD1 mutation may have an increased risk to develop breast cancer (including triple negative breast cancer). Lifetime risk to develop other cancers, including ovarian cancer, in individuals with a BARD1 mutation is currently unknown.

Risks to Family Members
Mutations in the BARD1 gene are inherited in an autosomal dominant fashion. This means that children, brothers, sisters, and parents of individuals with a BARD1 mutation have a 1 in 2 (50%) chance of having the mutation as well. Both males and females can inherit a BARD1 mutation and can pass it on to their children. Individuals with a BARD1 mutation may develop breast cancer.

Managing Cancer Risks
There are currently no formal management guidelines specific to individuals with BARD1 mutations. Recent guidelines from the National Comprehensive Cancer Network (NCCN) state that there is insufficient evidence for intervention with increased breast screenings or surgeries to remove breast/ovarian tissue prior to a cancer diagnosis. However, the following surveillance has been suggested based on expert opinion. Family history and personal history should be considered when discussing medical management with your physician.

- Discuss family history of breast cancer and personal medical history with physicians:
  - Annual breast MRI in conjunction with mammogram is recommended for individuals with a lifetime risk of breast cancer >20%
  - Risk-reducing chemoprevention may be considered in individuals with a 5-year risk to develop breast cancer >1.66%
- Discuss family history of ovarian cancer to determine management
  - Ovarian cancer screening or risk-reducing surgery may be considered based on family history

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