



Dear Family Member,

A member of your family has been identified as having a genetic mutation in the **BRIP1 gene**. Mutations in this gene are known to be associated with an increased risk for certain cancers. This means that other family members are at risk to carry this same gene mutation and hence at an increased risk for certain cancers. This letter has been written to summarize information regarding BRIP1 mutations.

Women with mutations in the BRIP1 gene have a moderate risk of ovarian cancer. Women identified to have a BRIP1 mutation have a lifetime ovarian cancer risk of approximately 5%-12%, compared with the general population risk of 1.5%. Although BRIP1 mutations have been reported with other types of cancer, such as breast cancer, more research is needed to better understand specific risks and cancer types.

Understanding risk is an important tool in prevention and management of cancer. It is important to note that many individuals with BRIP1 mutations will never develop cancer over their lifetime. When one inherits an BRIP1 mutation, he/she is not inheriting cancer; rather they are inheriting a predisposition to cancer.

When an individual has one copy of the BRIP1 gene mutation they have an increased risk for cancers as outlined above. Because everyone has two copies of the gene for BRIP1, this means that a parent who carries an BRIP1 mutation has a 50% chance of passing the mutation onto each of their children. It also means that if a person carries such a mutation, their siblings have a 50% chance to carry the same mutation. Extended family members may also be at risk for having the same mutation. If a person does not carry the mutation, they cannot pass it onto their children. It should be noted that very rarely an individual may have two BRIP1 mutations, one inherited from their mother, and one inherited from their father. If a person has two BRIP1 mutations they have a condition known as Fanconi Anemia. Individuals with Fanconi Anemia may have bone marrow failure, physical abnormalities, organ defects, and an increased risk of certain cancers (leukemia/lymphoma).

We strongly recommend that you and all persons in your family who are at risk for carrying the BRIP1 gene mutation consider scheduling an appointment for cancer genetic counseling to discuss the benefits and limitations of genetic testing. To pursue cancer genetic testing, it is helpful if you have a copy of your family member's genetic testing report indicating that they have an BRIP1 mutation.

GeneScreen is available to discuss this information in more detail with you and coordinate appropriate testing. Please visit the following website to submit your request for genetic counseling: <https://hipaa.jotform.com/200926739003048>. You can also contact Genescreen directly at 908-766-2800 to schedule a remote consultation with a genetic counselor.

Sincerely,



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