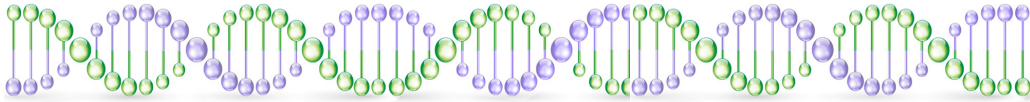


Information Sheet



Hereditary Ovarian Cancer syndrome and the BRIP1 gene

BRIP1 stands for BRCA1 Interacting Protein C-Terminal Helicase 1. It works with BRCA1 to fix DNA damage.

Do BRIP1 mutations cause cancer?

Mutations in BRIP1 are associated with increased risk of ovarian cancer. The risk is still being determined but is likely 4% to 12% over a lifetime. This is significantly less than for BRCA1, where the risk is 20 to 60% lifetime but much higher than the population risk of 1 or 2%.

What to do if you carry a BRIP1 mutation?

Most guidelines recommend removing the ovaries and fallopian tubes after menopause (around age 50 and before age 55). This is when risk approaches 1%. Surgery is rarely recommended before menopause.

Perhaps surprisingly, BRIP1 has not been shown to significantly increase breast cancer risk. Women should follow population based screening advice, unless there is a family history of breast cancer before age 50. In that case, screening may start earlier.

BRIP1 mutations are not believed to increase cancer risk for men.

Are BRIP1 mutations inherited?

Yes, they can be. Hereditary ovarian cancer syndrome is associated with germline BRIP1 mutations.

There is a 50% chance of a person who carries a germline BRIP1 mutation, whether male or female, passing the mutation to their son or daughter. If a mutation is identified, then predictive testing is available for blood relatives.

BRIP1 is a Fanconi anaemia gene and is also known as FANCD1. If a child inherits 2 pathogenic BRIP1 mutations, one from their mother and one from their father (biallelic mutations), the serious condition Fanconi's anaemia results.

Does this sound like you or your family? Have you had ovarian cancer or has an BRIP1 mutation been detected in a blood relative?

Make an appointment with Dr Hilda High at Sydney Cancer Genetics. It is a confidential opportunity to discuss your personal and family history of cancer and genetic testing can be organised, if needed.

More information is available on our website, including links to the following:

- The Cancer Genetics section of the Cancer Institute's eviQ website provides up-to-date Australian-based management guidelines

Clinics in Sydney. Telehealth throughout Australia including to rural and regional areas

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