

Everyone has BRCA1 & BRCA2 genes.

A simple explanation of **BRCA Genes** and BRCA gene mutations

BRCA stands for (BREast CAncer gene). BRCA1 & BRCA2 genes are tumor suppressor genes. They produce proteins that help repair damaged DNA and prevent cancer. However, if the gene has a mutation that prevents it from doing its job, a tumor can form. But breast cancer is not the only cancer associated with BRCA gene mutations.



A mutated gene is a broken gene
(If it can potentially cause cancer it's known as a pathogenic variant.)

It's estimated that 1 in 400 individuals have a BRCA1 or BRCA2 mutation.

PALB2 genes (works with BRCA1 & BRCA2 genes) are sometimes referred to as "BRCA3" genes.



A normal gene

Cancers associated with BRCA gene mutations:

- Breast Cancer (women and men)
- Ovarian, Fallopian Tube, and Primary Peritoneal Cancers
- Endometrial Cancer
- Melanoma
- Pancreatic Cancer
- Prostate Cancer
- Blood Cancers and other cancers have been linked to BRCA mutations as well.

Currently there are almost 5000* expert-classified pathogenic BRCA1 and BRCA2 gene variants.