

Lifetime risk estimates

The risk estimates shown below represent the proportion of people expected to develop a given cancer during their lifetime. Estimates for the general population are based on observed cancers among people in the United States. Estimates for men and women with a BRCA1 or BRCA2 variant are based primarily on studies of people of European and Ashkenazi Jewish descent. Estimates for people with a BRCA1 or BRCA2 variant represent the risk of developing cancer by the age of 70 (for women) or during their lifetime (for men). For some cancers, numerical risk estimates are not available.

Cancer type	General population	BRCA1 variant	BRCA2 variant
Breast (female)	12.4%	45-85%	45-85%
Ovarian	1.3%	39-46%	10-27%
Breast (male)	0.12%	1-2%	7-8%
Prostate	11.6%	May have an increased risk*	Increased risk
Pancreatic	1.6%	May have an increased risk	May have an increased risk
Melanoma	2.2%	Research ongoing	May have an increased risk

* For people with a BRCA1 variant, some studies did not observe an increased risk for prostate cancer.

References

1. Committee on Practice Bulletins–Gynecology, Committee on Genetics, Society of Gynecologic Oncology. (2017). "Practice Bulletin No 182: Hereditary Breast and Ovarian Cancer Syndrome." *Obstet Gynecol.* 130(3):e110-e126.
2. Evans DG et al. (2010). "Risk of breast cancer in male BRCA2 carriers." *J Med Genet.* 47(10): 710-1.
3. Howlader N et al. (eds). *SEER Cancer Statistics Review, 1975-2014*, National Cancer Institute. Bethesda, MD. April 2017.
4. Tai YC et al. (2007). "Breast cancer risk among male BRCA1 and BRCA2 mutation carriers." *J Natl Cancer Inst.* 99(23):1811-4.
5. U.S. Preventive Services Task Force. (2015). "Risk Assessment, Genetic Counseling, and Genetic Testing for BRCA-Related Cancer in Women: Recommendation Statement." *Am Fam Physician.* 91(2):Online.