

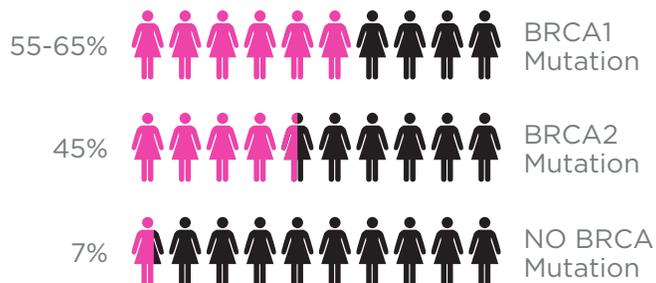
BRCA RESEARCH SAVES LIVES

BRCA1 and BRCA2 (**br**east **c**ancer susceptibility) are genes that help prevent breast cancer from developing. They are responsible for repairing defects in our DNA and maintaining our genes, which can prevent tumors from forming. When they are functioning properly, they are considered to be tumor suppressors. When mutations occur in the BRCA genes, their function is disrupted. They cannot effectively repair DNA damage, and defects accumulate, making cells more prone to cancer.

Mutations in BRCA are often inherited and people who have them are at increased risk for breast cancer—called **inherited breast cancer**. However, not all people with the BRCA mutation will get breast cancer. BRCA mutations can also occur sporadically (not inherited).

A small number—15-25%—of inherited breast cancers are a result of BRCA mutations.

Chances of Developing Breast Cancer by Age 70



Learn more about BRCA and breast cancer <http://sgk.mn/Zq4Kmy>

OUR RESEARCH INVESTMENT:
(1982-2019)

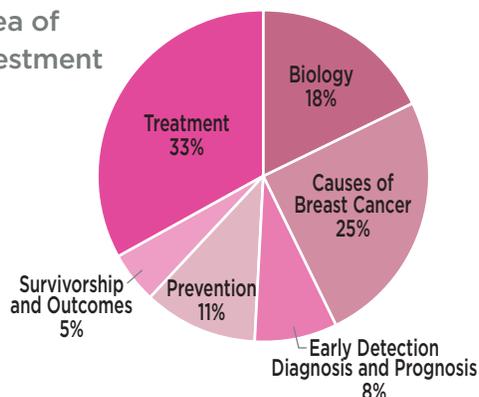
More than **\$65 million** in over **150 research grants** and **25 clinical trials** focused on BRCA mutations in breast cancer

What We're Investigating



- Developing new ways to prevent breast cancer in BRCA mutation carriers, including new drugs, hormone therapies and dietary approaches.
- Identifying environmental or hormonal factors that may contribute to breast cancer risk in women with a BRCA mutation.
- Understanding how BRCA mutations lead to both inherited and sporadic (not inherited) breast cancer so that targets for new treatments can be identified.

Topic Area of Total Investment



Read how Komen Scholar Dr. William Foulkes and collaborators identified a new inherited breast cancer risk gene in Komen's Stories of Discover series.

<http://sgk.mn/1QOqFg6>

WHAT WE'VE LEARNED from Komen-funded research

- Different populations have different BRCA mutations, which may affect their relative risk of developing breast cancer.
- Women from The Bahamas appear to be twice as likely to have a BRCA1 mutation than the general population.
- Newly identified risk factors may help predict which women with the BRCA mutation will get breast cancer.

Learn more about breast cancer

More Komen-funded Research Stories

Get Involved & Support Komen Research