

Developing a Molecular Breast Health Tool for Women with a Germline *BRCA* Mutation

Are you breastfeeding and know that you have a mutation in a *BRCA* gene?

We need your help.

Analysis of additional, non-inherited mutations and DNA methylation in cells from your breastmilk may provide a tool for detecting early breast cancer.

Want to know more?

BreastmilkResearch.org



Or contact
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Breastmilk Research to Prevent *BRCA* Breast Cancer

University of Massachusetts researchers are looking for breastfeeding mothers who have **tested positive for a *BRCA* mutation** to donate a sample of their breastmilk. Mothers can live anywhere in the continental US.

Why study breastmilk?

We study breastmilk in an effort to reduce breast cancer risk. Breastmilk provides a unique opportunity to examine the breast through the cells present in the milk.

Mutations in genes called *BRCA1* & *BRCA2* limit a cell's ability to repair DNA. A poor repair system is a serious problem as the DNA in dividing cells, such as cells in the breast, continuously need repair.

Women with a mutation in a *BRCA* gene are at increased risk of accumulating more mutations in specific cells, especially breast cells. These mutations and changes in DNA methylation can lead to cancer.



About this Study

We want to determine if the cells naturally present in breastmilk can be used both to assess an individual woman's risk of developing breast cancer, and to discover new molecular targets for preventing breast cancer. A greater understanding of the molecular profile in breast cells from *BRCA*-carriers will help in the development of therapeutic and preventative strategies, not only for women with a *BRCA* mutation, but for all women.

This study may also aid in the development of a tool for early detection of breast cancer in lactating women.

What will I need to do?

You will be asked to complete an informed consent document, a questionnaire, and to send us a copy of your *BRCA* test results. Then you will need to provide milk and saliva samples. You will receive \$50 in compensation for your time.

How will I donate my milk?

We will send you a collection kit with containers for your samples. The kit will include a prepaid return FedEx mailer. You will call FedEx to have your milk picked up and returned by express delivery.

How will my privacy be protected?

All information related to you will be given a code and your name will not be used in any publication. Identifying information about you will not be released to anyone.