We need your help in a new breast cancer study

The Child Health and Development Studies (CHDS) is excited to announce our newest study in collaboration with Zero Breast Cancer (ZBC, see article below).

In this new study, titled “Breast Cancer and Environmental Exposures Across Generations,” we need your help to develop an education campaign about the consequences of exposure to environmental Endocrine Disrupting Chemicals (EDCs) in multiple generations. These EDCs include pesticides, non-stick additives to pots and pans, and water repellents added to clothing and furniture. The 3-year education campaign will be designed to reach women of all ages through digital media (electronic newsletters, videos, interactive apps, etc.). We are recruiting cohort members who are female, over the age of 18, and live within commute distance (~50 miles) to the greater San Francisco Bay Area to be part of this one-of-a-kind study.

Participation and recognition for your time over the three years involves:

- Attending two in-person, 2-hour meetings in 2018. $25 stipend for each meeting.
- Being available for one, 1-hour electronic communication (via phone or video) in 2019. $10 stipend.
- Attending one in-person, 2 ½ hour meeting in 2020. $30 stipend.
- Responding to regular email correspondence throughout the three years of the study.

The in-person meetings will be held at a location within the San Francisco Bay Area. You will be reimbursed for local travel to and from the meetings, and food.
will be provided.

To participate please complete the following questionnaire by October 27, 2017.

To complete the questionnaire:

[CLICK HERE]

For more information about this study please see Germline EDC Exposure and Breast Cancer Risk in the 3Gs Study on the CHDS website.

If you have questions about the study or participation please contact Eileen Johnson at (510) 649-6390 or info@chdstudies.org.

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Meet Zero Breast Cancer

We are partnering with Zero Breast Cancer (ZBC) in our new study Breast Cancer and Environmental Exposures Across Generations (BCEG). ZBC envisions a world without breast cancer and seeks to reduce breast cancer risk by translating the results of scientific research into recommendations that support health and wellness at key stages of life. Breast cancer risks are complex and they are embedded in our physical and our social environments.

In order to lower the risk of breast cancer, ZBC focuses on modifiable risk factors--things that we can change--individually and within our communities. We recognize that social and economic conditions impact health in our neighborhoods and our ability to pursue healthy actions. Many inequalities that affect our health are systemic. Education and empowerment through studies like this can increase our resilience and change our environments to improve the health of all.

To learn more about ZBC, please visit their webpage: [www.zerobreastcancer.org](http://www.zerobreastcancer.org) or contact Catherine Thomsen at 415-726-1961 (catherinet@zerobreastcancer.org.).

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Surprising Source of a Harmful
In a recent newsletter, we told you how to reduce exposures to chemicals in plastic such as Bisphenol-A (BPA): avoid using canned foods and avoid storing food (especially hot food) in plastic containers. BPA is an endocrine disrupting chemical that has been linked to breast cancer, prostate cancer, obesity, and infertility. Endocrine disrupting chemicals are environmental chemicals that can interfere with the normal hormonal processes in our bodies.

While working on our ReThink Plastic Study, we learned that cash register receipts, ATM receipts, and other receipts printed on thermal paper often contain BPA which can transfer to skin easily and be absorbed by the body. A recent study showed that people who handled thermal paper receipts for two hours had significantly higher levels of BPA in their urine than those who handled the receipts while wearing gloves. Here is the link to the study published in the Journal of the American Medical Association: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4685668.

It is fairly simple to determine if a receipt is printed on thermal paper – dragging a coin or paper clip over the receipt will make a dark mark on thermal paper. If you are unsure, a simple approach is to take the precautions recommended below.

To reduce your exposure to BPA in receipts:

- Refuse a receipt if you don’t need it.
- Ask the cashier to put it in the bag – avoid putting it in with loose food items.
- Keep a container for receipts and ask the cashier to put the receipt in for you.
- Wash your hands well with soap and water as soon as possible after handling receipts.
- Wear cloth or nitrile gloves if you handle a lot of receipts or thermal paper.
- Don’t use hand sanitizer after handling receipts – it will actually increase your exposure.

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**Ask Barbara:**

In every newsletter we plan to answer questions from readers like you! So please [email the CHDS](mailto:) with your health concerns or questions and we will choose one to answer in future e-newsletters. **If your question is chosen you will win a $10 Amazon gift card!** Remember to provide your name and best
Dear Barbara: What has the CHDS been up to in the last 56+ years?

Dear CHDS Cohort Member:

Thank you for your question. Since its start, CHDS scientists have been investigating how biology, behavior, genetics, and the environment in early family life affect health outcomes in adults. More information on our past and current projects can be found here (http://www.chdstudies.org/research/index.php). Your question provides a perfect opportunity to explain how the new study, which is the focus of this newsletter, “Breast Cancer and Environmental Exposures across Generations”, is linked with past studies.

Recently, the CHDS has begun a new era of follow-up studies on CHDS children, now adults, and their children (CHDS grandchildren). A large study called The Three Generations Study (3Gs) established the first US cohort study encompassing three generations. All CHDS daughters and their daughters were eligible for this study that ran from 2010 to 2013. More than 3,000 daughters and more than 1,200 granddaughters participated in the study. The purpose of the study was to look at causes of breast cancer and other diseases affecting women that may pass from one generation to the next.

Daughters who participated in the study completed an interview. A smaller group also provided blood, urine, and saliva samples and had their weight and height measured in their homes. Granddaughters participated by completing a survey, providing samples, and having measurements taken. During this study we collected information like weight, height, occupation and income, exercise and diet, reproductive health (e.g. menstrual cycles and pregnancies), and general health. A great deal of new information across two generations was combined with the existing information that was provided by our founding mothers and fathers.

Here are some highlights of the groundbreaking research on the 3Gs daughters:

- Women who had the highest levels of exposure to a contaminant in DDT while they were developing in their mother’s womb had nearly 4-fold higher risk of breast cancer. This is the first womb to breast cancer study showing that exposures in the womb can affect the health of the developing fetus many years later, in adulthood. This study captured the attention of the media and was broadcast on NBC Nightly News. Here is the link if you missed it: https://www.nbcnews.com/nightly-news/video/ddt-pesticide-exposure-linked-to-breast-cancer-469123651811
- A woman’s risk of diabetes is twice as high if her mother smoked during pregnancy. Smoking is known to affect infant birth weight but few studies are able to show the impact of smoke exposure in the womb on adult health, many years later. Here is a link to this study: http://escholarship.org/uc/item/3gd6k16x#page-1
We are now expanding our research to focus on the granddaughters. The information provided by CHDS granddaughters will be used in our new study “Breast Cancer and Environmental Exposures across Generations” to try to understand how a grandmother’s exposures during pregnancy affects breast cancer risk in her granddaughter. Please see other articles in this newsletter for more information about this study and our community partner Zero Breast Cancer.

We are continuing to learn from the vast and precious resource that we have built together. We will keep you updated as we learn.

Sincerely,
Barbara