



Household Exposure Study Fact Sheet

WHAT IS THE PURPOSE OF THE STUDY?

Most people spend most of their time at home, so chemicals that people are exposed to at home can be important for health. We are studying chemicals that come from activities inside the home as well as pollutants that may come from outside. The goal is to learn about patterns of exposure inside homes. We are also trying to learn how to reduce household exposures.

WHO IS DOING THE STUDY?

The study is being done by Communities for a Better Environment (CBE), a non-profit environmental health and justice organization; Silent Spring Institute, a non-profit research organization that studies women's health and the environment; and Brown University. The National Institute of Environmental Health Sciences is sponsoring the research.

WHO IS IN THE STUDY AND HOW IS THE STUDY BEING DONE?

We invited residents from the Liberty and Atchison Village neighborhoods in Richmond and from Bolinas to participate in the study. A total of 50 homes are in the study: 40 in Richmond and 10 in Bolinas. Researchers collected air and dust samples from each home and from outdoor areas nearby, and they interviewed participants about the types of household products they use. The air and dust samples will be tested for more than 100 chemicals that are in consumer products or air pollution. By collecting samples in Richmond and Bolinas, we will be able to compare homes near air pollution sources with homes in a more rural area.



WHAT CHEMICALS IS THE STUDY TESTING FOR?

Metals and particulate matter. Because the Richmond homes in this study are close to industries, such as the Chevron refinery, and to pollution from highways, rail lines, and ship lanes, the study is sampling chemicals associated with those sources, such as metals and particulate matter (small dust that you can breathe into your lungs). These pollutants can affect asthma, other respiratory diseases, and heart health.

Chemicals that may affect hormones. Other chemicals were chosen for this study because of evidence that they may affect hormones. These are known as endocrine disrupting chemicals (EDCs). Some of these chemicals mimic estrogen. They are found in common products, including some pesticides, cleaning products, plastics, furniture, and

cosmetics. Exposure to the natural estrogen made in our bodies increases breast cancer risk, so learning about exposure to other chemicals that mimic estrogen may one day help us learn ways to prevent breast cancer. The chemicals that affect hormones may also affect asthma, fertility, child development in early life and at puberty, learning disabilities, and other aspects of health.

Exposure is an environmental justice concern because low-income communities often have higher asthma rates. Also, African-American women are more likely than others to be diagnosed with breast cancer at an early age and more likely to die of it, even if they have good access to medical care.

WHAT WILL THE STUDY RESULTS SHOW?

Study results will tell us the levels of the chemicals that are found in homes in Richmond and Bolinas. We will be able to compare homes in these two communities with each other and with results from other studies, including homes we tested in Massachusetts. In this study, we will not be able to draw conclusions about the health effects of exposure to the chemicals. Further studies would be needed to determine any link between the pattern of exposure and its health consequences.

HOW WILL RESULTS BE REPORTED?

Individuals who participated in the sampling will have an opportunity to see results for their home if they want to. Summaries of the findings for the communities as a whole will be reported in public meetings and news media as the analysis is completed. The results will also be published in scientific journals. No information that links the personal identity of anyone in the study with the results will be published or shared; individual information will be kept confidential. Right now the laboratory chemical analyses and statistical analyses are in progress. Because this study will yield a great deal of information, additional results will continue to be reported over several years.



HOW CAN I GET MORE INFORMATION?

Please feel free to contact CBE study coordinator Jessica Tovar or Carla Perez at 510-302-0430.

The study team is grateful to everyone who shared their experiences and opened their homes so that we can learn more about the presence of chemicals in households in these communities and in others. THANK YOU!

