



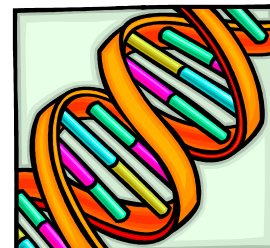
AGRICULTURAL HEALTH STUDY

NC OFFICE • BATTELLE • CENTERS FOR PUBLIC HEALTH RESEARCH & EVALUATION
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www.aghealth.org

Buccal Cell Collection

The role of genetics in health and disease is one of the most rapidly expanding areas of scientific inquiry. That's why the Agricultural Health Study is collecting genetic material by using a simple mouthrinse procedure that collects buccal cells from the inside of the cheek.



What are buccal cells?

Buccal cells are the cells from the inner lining of the mouth, or cheek. These cells are routinely shed and replaced by new cells. As the old cells die, they accumulate in the saliva in the mouth and can easily be collected by a simple procedure using mouthrinse.

Why collect buccal cells?

Collecting buccal cells will help researchers to better understand the way people process potentially toxic substances and to determine why some people who are exposed to certain substances develop diseases, while others exposed to the same substances do not. The genetic material in the buccal cell samples, combined with information on occupational, environmental, and dietary factors, will allow researchers to get a more complete picture of what is affecting the health of the agricultural population. *By identifying factors that make people more likely to develop certain diseases, study investigators hope to be able to identify potential hazards and risks that could be prevented.*

How are the cells collected?

Participants who agree to do the buccal cell collection are mailed a kit that includes everything they will need for this simple "Swish and Spit" procedure. Each participant is asked to swish one tablespoon of Scope® mouthwash in his/her mouth and then discharge it into the container provided. This procedure takes about 5 minutes. The sample is collected at home and mailed with a signed consent form to the laboratory in the pre-posted, addressed envelope.

Are you a participant in the Agricultural Health Study?

If you are...

- *and* if you have already been interviewed by telephone about your farming, health, and diet
- *but* have not yet provided a buccal cell sample

it's not too late to participate!

Please call 1-800-4AG-STUDY so that the Agricultural Health Study can mail a buccal cell kit to you. The buccal cell sample is easy to do and just takes a few minutes of your time.

Your participation will help the Agricultural Health Study get representative results and would be greatly appreciated.

Thank you for calling...

We need your help!

The Agricultural Health Study is a long-term study to investigate the effects of environmental, occupational, dietary, and genetic factors on the health of the agricultural population. This study will provide information that agricultural workers can use in making decisions about their health and the health of their families. The study is conducted in North Carolina by Battelle Centers for Public Health Research and Evaluation and in Iowa by the Department of Epidemiology at the University of Iowa. **The study is directed by the National Cancer Institute, the National Institute of Environmental Health, and the US Environmental Protection Agency.**

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How will the buccal cell samples be used?

The buccal cell sample is being collected for use in future research. The exact studies that will be performed are not all known at this time but are likely to include the following:

- 1) the study of differences in genes that may be related to how people process disease-causing substances;
- 2) the study of how the effects of diet, lifestyle, the environment, race/ethnicity, age and other factors may be related to these genes.

In order to protect the confidentiality of these genetic tests, the study has provided multiple safeguards so that test results cannot be linked directly to participants. Collection bottles are identified by numbers—not by names. All information will be kept confidential to the extent provided by law. Names of participants will not be used in any reports. The study results will be reported in statistical summary form only.

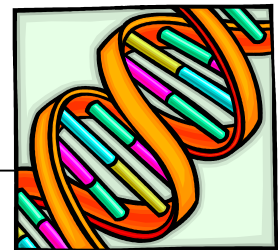
What about research results?

The Agricultural Health Study does not plan to inform participants of their individual results. If the research yields findings that are of possible medical benefit, the study will publish a newsletter that will be provided to all participants.

Even though immediate personal benefits are not expected, the knowledge gained from this research may eventually benefit not only the farming community but also people throughout the world. By comparing samples from participants who have diseases with samples from those who are healthy, the Agricultural Health Study may be able to identify factors that prevent disease and promote good health.

How many participants have provided samples?

So far, the study has collected about 27,000 buccal cell samples from participants in the Agricultural Health Study—farmer pesticide applicators and their spouses in North Carolina and Iowa. The study will continue to collect samples as additional Agricultural Health Study participants are contacted for the 5-year follow-up interviews. Only participants of the Agricultural Health Study can take part, and no new participants may be added to the study. This important and valuable contribution is made possible only through the willingness of Agricultural Health Study participants in North Carolina and Iowa.



*The buccal cell collection
is one of the most important parts
of the Agricultural Health Study!*