

Consent Form

Title of Research Study: Clinical Trial of Two Study Drinks in Detoxification of Environmental Toxicants and Carcinogens

Investigator Team Contact Information: *Dorothy Hatsukami, PhD.*

For questions about research appointments, the research study, research results, or other concerns, call the study team at:

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Key Information About This Research Study

The following is a short summary to help you decide whether or not to be a part of this research study. More detailed information is listed later on in this form.

What is research?

Doctors and investigators are committed to your care and safety. There are important differences between research and treatment plans:

- The goal of research is to learn new things in order to help groups of people in the future. Investigators learn things by following the same plan with a number of participants, so they do not usually make changes to the plan for individual research participants. You, as an individual, may or may not be helped by volunteering for a research study.
- The goal of clinical care is to help you get better or to improve your quality of life. Doctors can make changes to your clinical care plan as needed.

Why am I being asked to take part in this research study?

We are asking you to take part in this research study because you are a male or female 18 years or older and are willing to participate in a dietary study looking at the effects of one of two study drinks on different toxicants and cancer-causing agents found in the environment and cigarette smoke.

What should I know about a research study?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

Why is this research being done?

The goal of this research is to determine if consuming one of the two study drinks will help enhance the detoxification of multiple environmental toxicants and cancer causing agents. If our research supports this idea, this drink could be an inexpensive dietary component, which could promote good health, including potentially reducing the risk for cancer.

How long will the research last?

We expect that you will be in this research study for approximately 8 weeks. After today, there are a total of 11 visits and they will be a combination of remote and in-person visits. Each visit will last approximately 1 hour.

What will I need to do to participate?

We will provide you with the two different powders dispensed at separate time periods and a flavoring product and ask you to add them to water. We will ask you to drink this mixture at breakfast, lunch and dinner. We will ask you to come to the clinic for 11 visits over 8 weeks. Urine, blood, saliva and oral cells will be collected and we will ask you to questions about your health and diet. If you are a tobacco user,

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we will ask you questions about your tobacco use.

More detailed information about the study procedures can be found under "***What happens if I say yes, I want to be in this research?***"

Is there any way that being in this study could be bad for me?

One of the study products has the potential to cause gastrointestinal distress (e.g. flatulence/gas, bloating, nausea).

There is a risk of breach of confidentiality or a loss of privacy if other people find out about your participation. All efforts are made to keep your information confidential, but confidentiality is not absolute.

Will being in this study help me in any way?

There are no benefits to you from your taking part in this research. We cannot promise any benefits to others from your taking part in this research. However, possible benefits to others may include reducing the risks for certain cancers.

What happens if I do not want to be in this research?

You do not have to participate in this research. You can choose to leave the study at any time.

Detailed Information About This Research Study

The following is more detailed information about this study in addition to the information listed above.

How many people will be studied?

We expect about 175 people here will be in this research study out of 400 people in the entire study.

What happens if I say "Yes, I want to be in this research"?

Screening Visit. First, we will determine if you are eligible for our study. At this visit, we will ask you several questions over the phone regarding your history of tobacco use, health, and use of medications. If you are eligible and agree to participate, you will be invited back to the clinic for the next portion of the study.

Clinic Visits. We will ask you to attend clinic visits on days 0, 4, 7, and 14 for each of the periods where you are receiving product and weekly during the four-week washout period. Before each visit you will collect your first morning void urine at home. We will also ask you about any COVID 19 symptoms or your potential for contracting COVID 19. You will come to our clinic for the remaining study procedures. You will be required to wear mask. We will collect your first morning void urine and if you are a woman, we will perform a pregnancy test. If the test shows you are pregnant, you will not be able to be in the study. Next, we will ask you to brush your teeth using a commercially available, individually packaged, pre-pasted toothbrush. This is in preparation for the oral cell collection. You will not be able to eat, drink or chew gum until after the oral cell collection. Your heart rate and blood pressure will be measured using a portable blood pressure machine. We will ask you several questions about your health, diet and

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medication use. If you are a smoker, we will ask you about your tobacco use. We will also perform a fingerstick blood. It is possible that we may shift some of these procedures to remote (video-conference) or curbside (you will remain in your car) visits if required by public health mandates.

Fingerstick Blood Collection. We will collect one tube of blood, approximately 1 mL (less than 1 teaspoon total) by poking your finger.

Urine Collection. We will ask you to collect your first void of the day, which is the first time you urinate after waking up on the morning of your visit. If you are a woman, we will also use this urine sample to do a pregnancy test.

Saliva Collection. We will ask you to put a small piece of cotton under your tongue and keep it there for 2 minutes. You will do this twice at each visit.

Oral rinse. We will ask you to squirt saline solution into your mouth and swish for 45 seconds. Then we will ask you to spit in back into a tube.

Oral Cell Collection. Oral cells will be collected by scraping the inside of your mouth with a soft brush. We will collect cells from your left and right cheeks.

Study Product. You will be assigned to one of two study products for 14 days, then undergo a 4-week washout period (no study product) and then will switch to the other product for another 14 days. The order in which you receive the two products will be chosen by chance, like flipping a coin. Neither you nor the study investigator will choose what treatment order you get. We will ask you to add one level scoop of the study powder and 8 oz of room temperature/ lukewarm water to the provided water bottle. It is important that the water temperature is neither too hot nor too cold. It should be comfortable to the touch. Shake or stir it for 15 seconds and then let the mixture rest for 5 minutes. Next, add in one flavoring packet and stir for 10 seconds. Add in an additional 8 oz of cold/ice water and shake or stir for 10 seconds. We ask that you finish the prepared drink within 20 minutes of mixing and drink the mixture at breakfast, lunch and dinner each day.

We will ask you to refrain from eating any cruciferous vegetables (we provide you a list of common cruciferous vegetables since they contain the same compound that we are testing) while you are in the study.

What are my responsibilities if I take part in this research?

If you take part in this research, you will be responsible to follow the study requirements as outlined above and as instructed by the study staff. It is important that you drink the study drinks as directed or tell us when you miss a dose.

Why is it important to provide accurate information?

The information you provide us has real implications for possible treatment options for those who might be at risk for cancer. For example, if you say that you are drinking the study drink as directed, but are not actually drinking it, we may conclude that the study product has no effect on detoxifying cancer causing agents and that information will be conveyed to other scientists and the community at large.

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As a consequence, a drink that might result in reduction in cancer risk will not be available for those people who are at higher risk for cancer because of exposures to environmental pollutants (e.g., firefighters).

What happens if I say “Yes”, but I change my mind later?

You can leave the research study at any time and no one will be upset by your decision.

If you decide to leave the research study, contact the investigator so that the investigator can remove you from the study. A member of the research staff will assist you in making your decision effective. No additional study procedures will be performed if you choose to withdraw from the study.

Choosing not to be in this study or to stop being in this study will not result in any penalty to you or loss of benefit to which you are entitled. This means that your choice not to be in this study will not negatively affect your right to any present or future medical care. Our research staff can also help you with contacting local quit-smoking hotlines or any other smoking-cessation resources if you desire to quit smoking. Any money earned up to the point of withdrawal will still be yours.

If you stop being in the research, information about you that has already been collected may not be removed from the study database.

What are the risks of being in this study? Is there any way being in this study could be bad for me? (Detailed Risks)

Study procedures

This study will include questions about your medical history and drug and alcohol use. Answering these personal questions could make you uncomfortable. While measuring blood pressure, the cuff may cause minimal discomfort. In obtaining your blood pressure we may find that you have abnormal blood pressure and/or heart rate. Potential complications of blood drawing include slight bruising, soreness, redness, or swelling near the puncture site. In addition, some people occasionally experience dizziness, nausea or fainting.

Study product

One of these study products has the potential to cause gastrointestinal distress (e.g. flatulence/gas, bloating, nausea). Some of the flavoring products may contain phenylalanine. Please let us know if you've ever had an adverse reaction to phenylalanine or have been told by your doctor to avoid products containing phenylalanine or aspartame.

Breach of confidentiality

There is a risk of breach of confidentiality or a loss of privacy if other people find out about your participation. All efforts are made to keep your information confidential, but confidentiality is not absolute.

What do I need to know about reproductive health and/or sexual activity if I am in this study?

You should not be or become pregnant and/or breastfeed while in this research study.

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If you are sexually active, both men and women should use at least one effective means of birth control while participating in this research study. According to the World Health Organization and the United States Center for Disease Control and Prevention, the most effective forms of birth control include complete abstinence, surgical sterilization (both male and female), intrauterine devices (IUDs), and the contraceptive implant. The next most effective forms of birth control include injectables, oral contraceptive pills, the contraceptive ring, or the contraceptive patch. Acceptable, but least effective, methods of birth control include male condoms (with or without spermicide) and female condoms.

If you are considered to be postmenopausal, you are not required to use contraception while participating in this research study. Postmenopausal women rarely become pregnant. If you become pregnant while participating in this research study, it is important that you tell the study doctor or other research team member immediately. You will be required to stop participation in this study. The licensed medical professional may want to follow pregnancy outcomes in the event of a pregnancy. Your permission will be obtained prior to seeking follow-up on any pregnancy outcomes.

Will it cost me anything to participate in this research study?

Taking part in this research study will not lead to any costs to you.

What happens to the information collected for the research?

Efforts will be made to limit the use and disclosure of your personal information, including research study and medical records, to people who have a need to review this information. We cannot promise complete confidentiality. Organizations that may inspect and copy your information include the Institutional Review Board (IRB), the committee that provides ethical and regulatory oversight of research, and other representatives of this institution, including those that have responsibilities for monitoring or ensuring compliance. In addition, officials from agencies and organizations that provide accreditation, oversight, or funding of this research may be granted access to your information. These include the University of Minnesota Research Compliance Office and other University compliance units, the US Office of Research Integrity (ORI), the US Office for the Protection of Human Research Protections (OHRP), the National Cancer Institute (NCI), the Department of Health and Human Services, the National Institutes of Health and public health and safety authorities.

To help protect your privacy, the National Institutes of Health has granted a Certificate of Confidentiality. The researchers can use this Certificate legally to refuse to disclose information that may identify you in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings, for example, if there is a court subpoena. The researchers will use the Certificate to resist any demands for information that would identify you, except as explained below.

The Certificate does not prevent a researcher from reporting information learned in research when required by other state or federal laws, such as mandatory reports to local health authorities for abuse or neglect of children/vulnerable adults, or information to the Food and Drug Administration (FDA) when required in an FDA audit. However, the Certificate limits the researcher from disclosing such information in follow up civil, criminal, legislative or administrative legal proceedings if the information was created or compiled for purposes of the research.

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You also should understand that a Certificate of Confidentiality does not prevent you or a member of your family from voluntarily releasing information about yourself or your involvement in this research. If an insurer, medical care provider, or other person obtains your written consent to receive research information, then the researchers will not use the Certificate to withhold that information.

Data or Specimens Collected

We will analyze DNA from your blood to determine how your body processes certain environmental toxicants and cancer-causing agents. Some of the urine, saliva and oral cell samples you provide will be stored for future research. The samples will be stored until analyzed or it is determined that they are no longer needed. The longest they can be stored for is 10 years. You have the right to withdraw consent at any time by informing the Principal Investigator by following the instructions provided in this consent. If this occurs, any remaining identifiable research sample(s) will be destroyed.

If identifiers are removed from your identifiable private information or identifiable samples that are collected during this research, that information or those samples could be used for future research studies or distributed to another investigator for future research studies without your additional informed consent.

A federal law, called the Genetic Information Nondiscrimination Act (GINA), generally makes it illegal for health insurance companies, group health plans, and most employers to discriminate against you based on your genetic information. This law generally will protect you in the following ways:

- Health insurance companies and group health plans may not request your genetic information that we get from this research.
- Health insurance companies and group health plans may not use your genetic information when making decisions regarding your eligibility or premiums.
- Employers with 15 or more employees may not use your genetic information that we get from this research when making a decision to hire, promote, or fire you or when setting the terms of your employment.

Be aware that this federal law does not protect you against genetic discrimination by companies that sell life insurance, disability insurance, or long-term care insurance.

The sponsor, monitors, auditors, the IRB, the University of Minnesota Research Compliance Office and other University compliance units, the US Office of Research Integrity (ORI), the US Office for the Protection of Human Research Protections (OHRP), the US Food and Drug Administration (FDA) may be granted direct access to your medical records to conduct and oversee the research. By signing this document you are authorizing this access. We may publish the results of this research. However, we will keep your name and other identifying information confidential.

A description of this clinical trial will be available at <http://www.ClinicalTrials.gov>, as required by U.S. Law. This Web site will not include information that can identify you. At most, the Web site will include a summary of the results. You can search this Web site at any time.

Information about your participation in this study may be shared with the other researchers in the

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Tobacco Research Programs. This includes information about the type and duration of study, your health information and tobacco use status. The information is shared to make sure you are only in one study at a time, meet the eligibility criteria to participate and to maintain your safety.

Will anyone besides the study team be at my consent meeting?

You may be asked by the study team for your permission for an auditor to observe your consent meeting or other study visit. Observing the consent or study meeting is one way that the University of Minnesota makes sure that your rights as a research participant are protected. The auditor is there to observe the meeting, which will be carried out by the people on the study team. The auditor will not document any personal (e.g. name, date of birth) or confidential information about you. The auditor will not observe your meeting without your permission ahead of time.

Whom do I contact if I have questions, concerns or feedback about my experience?

This research has been reviewed and approved by an IRB within the Human Research Protections Program (HRPP). To share feedback privately with the HRPP about your research experience, call the Research Participants' Advocate Line at 612-625-1650 (Toll Free: 1-888-224-8636) or go to z.umn.edu/participants. You are encouraged to contact the HRPP if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

Will I have a chance to provide feedback after the study is over?

The HRPP may ask you to complete a survey that asks about your experience as a research participant. You do not have to complete the survey if you do not want to. If you do choose to complete the survey, your responses will be anonymous.

If you are not asked to complete a survey, but you would like to share feedback, please contact the study team or the HRPP. See the "Investigator Contact Information" section of this form for study team contact information and "Whom do I contact if I have questions, concerns or feedback about my experience?" of this form for HRPP contact information.

Can I be removed from the research?

The person in charge of the research study or the sponsor can remove you from the research study without your approval. Possible reasons for removal include physical or psychological health concerns or non-compliance with the research protocol.

We will tell you about any new information that may affect your health, welfare, or choice to stay in the research.

What happens if I am injured while participating in this research?

In the event that this research activity results in an injury, treatment will be available, including first aid, emergency treatment and follow-up care as needed. Care for such injuries will be billed in the ordinary

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manner, to you or your insurance company. If you think that you have suffered a research related injury let the study physicians know right away.

Will I be compensated for my participation?

If you agree to take part in this research study, we will pay you \$25 for today's visit. If you are eligible to continue in the study, you will receive \$25 for your time and effort at the clinic and \$10 for transportation costs for a total of \$420). A \$245 bonus will be provided for completion and compliance to the study procedures. The total amount you could receive is \$690.

Payment will be made using a pre-paid debit card called Greenphire ClinCard. It works like a bank debit card. We will give you a debit card and each time you receive a payment for participation in this study, the money will be added to the card after each completed visit.

You may use this card at any store that accepts MasterCard or you can use a bank machine to remove cash. However, there may be fees drawn against the balance of the card for cash withdrawals (ATM use) and inactivity (no use for 3 months). We will give you the ClinCard Frequently Asked Questions information sheet that answers common questions about the debit card. You will also receive letters with additional information on how you can use this card and who to call if you have any questions. Be sure to read these letters, including the cardholder agreement, for details about fees.

The debit card system is administered by an outside company. The company, Greenphire, will be given your name and social security number. They will use this information only as part of the payment system. Your information will not be used for any other purposes and will not be given or sold to any other company. Greenphire will not receive any information about your health status or the study in which you are participating.

Additionally, you will have the option to receive updates related to appointment reminders and payment reminders and updates via text message and email message (Standard text messaging rates will apply). You will have the opportunity to opt-in to receive these messages, you are not required to provide your cell phone or email address to be enrolled in the study or use a ClinCard. If you choose to receive messages and decide at a later date that you want to stop these messages, you will have the ability to opt-out.

Any demographic information collected and provided to Greenphire is stored in a secure fashion and will be kept confidential, except as required by law.

Payment you receive as compensation for participation in research is considered taxable income. If payment to an individual equals or exceeds \$600 in any one calendar year, the University of Minnesota is required to report this information to the Internal Revenue Service (IRS). Research payments to study participants that equal or exceed \$600 during any calendar year will result in a FORM 1099 (Miscellaneous Income) being issued to you and a copy sent to the IRS.

Use of Identifiable Health Information

We are committed to respect your privacy and to keep your personal information confidential. When choosing to take part in this study, you are giving us the permission to use your personal health

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information that includes health information in your medical records and information that can identify you. For example, personal health information may include your name, address, phone number or social security number. Those persons who get your health information may not be required by Federal privacy laws (such as the 1099 Rule) to protect it. Some of those persons may be able to share your information with others without your separate permission. Please read the HIPAA Authorization form that we have provided and discussed.

The results of this study may also be used for teaching, publications, or for presentation at scientific meetings.

Optional Elements:

The following research activities are optional, meaning that you do not have to agree to them in order to participate in the research study. Please indicate your willingness to participate in these optional activities by placing your initials next to each activity.

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Yes,
I agree

No,
I disagree

The investigator may contact me in the future to see whether I am interested in participating in other research studies by Stephen Hecht PhD. or Dorothy Hatsukami, PhD.

The investigator may retain any leftover blood, urine or oral cells samples taken during the study. These samples may be used for other research not related to this study. These samples will be retained in non-identifiable form, meaning that there will be no information associated with the samples that will allow anyone to readily ascertain my identity.

I would like to receive reminders using Greenphire.

If yes, provide the following contact information:

Email Address: _____

Phone Number: _____

Your signature documents your permission to take part in this research. You will be provided a copy of this signed document.

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Signature of Participant

Date

Printed Name of Participant

Signature of Person Obtaining Consent

Date

Printed Name of Person Obtaining Consent

WITNESS STATEMENT:

The participant was unable to sign this consent form because of the following reason:

- The participant is unable to read the information
- The participant is visually impaired
- The participant is physically unable to sign the consent form. Please describe:

- Other (*please specify*):

My signature below documents that the information in the consent document and any other written and information was accurately explained to, and apparently understood by, the participant, and that consent was freely given by the participant.

Signature of Witness to Consent Process

Date

Printed Name of Person Witnessing Consent Process