CONSENT FORM TO BE PART OF A RESEARCH STUDY

Title of Research: Obesity and Endogenous Oxalate Synthesis

UAB IRB Protocol #: IRB-130502007

Principal Investigator: Dr. Kyle Wood

Sponsor: National Institutes of Health (NIH)

General Information	You are being asked to take part in a research study. This research study is voluntary, meaning you do not have to take part in it. The procedures, risks, and benefits are fully described further in the consent form.
Purpose	The purpose of the study is to increase our understanding of how glycolate and oxalate are managed by the body.
Duration & Visits	The screening will involve 3 days and two visits to the UAB Clinical Research Unit (CRU). The dietary phase will last 4 days and involve 2 visits to the CRU.
Overview of Procedures	The screening will include two 24-hr urine collections, a fasted blood draw and an optional stool sample. The dietary phase will include eating a controlled diet for 4 days, collecting three 24-hr urines and giving a fasted blood draw.
Risks	The most common risks of this study include discomfort or bruising from the blood draw site as well as a potential loss of confidentiality
Benefits	While there is no direct benefit to you from the study, participating will help us to learn how the body's handling of oxalate, a major component of kidney stones, is influenced by obesity and diabetes.
Alternatives	You do not have to take part in this study if you don't want to.

Purpose of the Research Study

We are asking you to take part in a research study. Please read this information carefully and feel free to ask questions about anything you don't understand.

The purpose of this research study is to improve our understanding of glycolate and oxalate metabolism, in view of better understanding the formation of calcium oxalate kidney stones. Oxalate is a small organic acid that is formed primarily in the liver as an end product of metabolism. The bulk of this oxalate is excreted in urine and can cause a problem for individuals who make kidney stones when it forms crystals with calcium. We hypothesize that subsets of people at increased risk of calcium oxalate kidney stone have altered metabolism that results in increased production of oxalate in our bodies from three normally occurring molecules, or precursors, called glyoxal, glycolate and vitamin C. To that end, we will examine metabolism and urinary excretions in different groups: normal individuals, individuals with diabetes, individuals with obesity and individuals with a history of calcium oxalate kidney stones. This study will also recruit individuals with chronic kidney disease.

To increase our chances of reflecting the body's natural production of oxalate, we will try to limit any effects that the amount of oxalate in the diet has on urinary oxalate excretion by having participants eat a controlled low oxalate diet. This study will enroll 150 subjects total, with Body Mass Index (BMI) > 18.5 kg/m^2.

Study Participation & Procedures

Screening Visit:

1. The screening will start with two 24-hour urine collections while consuming your home diet. You will return these urines to the research unit.
2. If the urine results are within the expected range, you will then be invited to come to the UAB Clinical Research Unit (CRU) in the fasted state (at least a 10-hour fast). The following will occur at this visit: a fasted blood sample will be obtained at this appointment to ensure you are in good health. This will require 2 tablespoons of blood (20 ml) in total.
3. If the blood results are within the range of expected values for stone forming and non-stone forming individuals, you will be invited to come to the CRU.
    a. You will meet with a nutritionist at the CRU to determine your caloric requirements and your willingness to consume a diet prepared in the CRU, which will be controlled in their content of nutrients including oxalate and calcium You will learn about the menu choices available for the diet, as well as the procedure for picking up your food from the CRU kitchen for the dietary study. The nutritionist will also measure your height, weight, waist-to-hip ratio, and estimate your body fat mass.
    b. You will be provided with a commercial stool collection kit and asked to swab your stool with 2 swabs, insert them in a transport medium, and return them to the Urology laboratory in a prepaid Fedex Clinical Pak. This sample will be used to determine if you are colonized with *Oxalobacter formigenes*, a bacterium that lives in the large intestine and breaks down oxalate.
4. If any of the test results exclude you from participating in the study, we will contact you over the phone to let you know that you may not participate. If all the exams and tests show that you meet the requirements to be in this study, you will be scheduled for the dietary study.

Controlled Dietary Study

Before beginning the controlled diet study, you will be asked to avoid high oxalate and high vitamin C foods and multivitamins for 2 days leading to the start of the controlled diet. A list of foods to avoid is listed below:

Foods to Avoid 2 days before beginning the controlled diet

High Oxalate and Vitamin C foods to avoid		
Vegetables	**Fruits**	**Other foods**
· Spinach	· Rhubarb	· Chocolate
· Potatoes	· Kiwi Fruit	· Cocoa powder
· Potato Chips	· Fruit Juice	· Soy Products
· Potato Fries	· Oranges	· Nuts
· Beetroot	· Grapefruits	· Rice and wheat bran
· Kale and Chard	· Lemons	· Bran flakes
· Broccoli		· Wheat Germ
· Green/Yellow/Red Bell Peppers		

To start the controlled diet, you will return to the CRU to pick up the controlled meals that you will eat for 4 consecutive days. The controlled diet will be prepared by the CRU kitchen. It will be controlled diet for protein, carbohydrates, fat, calcium, oxalate, vitamin C and sodium. You are asked not to take any dietary supplements for the duration of this study (e.g., vitamins, calcium and other minerals, herbal supplements, nutritional aids) or to exercise strenuously. On these four days of controlled diet, you will be asked to eat no foods other than those provided. Meals will be divided into specific days, and you may not switch out one day's meals for another, such as eating Day 1's dinner on Day 3. You may switch up whole meals for any one day, such as swapping out Day 3's lunch meal and dinner meal. You will be asked to at least drink 1.5 liters of bottled water per day, which will be provided. You

are restricted to 8 oz. of unsweetened or artificially-sweetened black coffee or tea daily.

1. After two days of avoiding high oxalate and high vitamin C foods (listed above), you will return to the CRU to pick up the controlled diet, which you will consume for the next 4 days. You will not have to visit the CRU on Day 1.
2. **Days 2-4**: After one day on the controlled diet, you will be asked to collect 24-hour urines on Day 2, 3 and Day 4 of the study. You will be given containers to collect your urine for each day., and you will be asked to drop off these samples with the research coordinator the morning following each collection, meaning that you will drop off Day 2's urine on the morning of Day 3 and Day 3's urine on the morning of Day 4.
3. **Day 5**: You will be asked to perform an overnight fast by not eating anything from 12:00 am (midnight) the evening before until arriving in the CRU. After completing day 4 24-hour urine collection that morning and noting the time, you will be asked to drink 500 ml (1 bottle of water) and to start one last urine collection that morning: from the end of day 4 to your visit at the CRU. You will come at the CRU in the morning while still fasting, turn in your Day 4 urine collection, provide a blood draw (1 tablespoon or 10 ml) and finish the last urine collection at the CRU before leaving.

This concludes the dietary study.

Risks and Discomforts

Blood collections

You may experience some discomfort when blood is drawn. There is a slight risk of a bruise occurring, and if one does form it should disappear after several days. There is also a slight chance of infection occurring at the injection site or of your fainting during the blood draw. If you do faint, you will be assisted by the nursing staff and rested until you are capable of normal activities.

Controlled low-oxalate diet

There is also a risk of illness from improperly-handled, prepared food. The CRU metabolic kitchen maintains strict policies and procedures to ensure food safety, but you will also need to handle food safely and as instructed to minimize risk.

Personal Information

There is also a risk that your private health information will be disclosed. However, we will take precautions by storing all your information in locked offices or on password-protected computers.

Benefits

re will be no direct benefit to you for being in this study. The knowledge gained, however, will contribute to our understanding of the association between diabetes, obesity and stone disease.

Alternatives

This is not a treatment study and your participation is voluntary. Your alternative is to not participate in this research study.

Confidentiality and Authorization to Use and Disclose Information for Research Purposes

Federal regulations give you certain rights related to your health information. These include the right to know who will be able to get the information and why they may be able to get it. The study doctor must get your authorization (permission) to use or give out any health information that might identify you.

What protected health information may be used and/or given to others?

All medical information, including but not limited to information and/or records of any diagnosis or treatment of disease or condition, which may include sexually transmitted diseases (e.g., HIV, etc.) or communicable diseases, drug/alcohol dependency, etc.; all personal identifiers, including but not limited to your name, social security number, medical record number, date of birth, dates of service, etc.; any past, present, and future history, examinations, laboratory results, imaging studies and reports and treatments of any kind, including but not limited to drug/alcohol treatment,

psychiatric/psychological treatment; financial/billing information, including but not limited to copies of your medical bills; any other information related to or collected for use in the research study, regardless of whether the information was collected for research or non-research (e.g., treatment purposes); records about any study drug you received or about study devices used; and consent forms from past studies that might be in your medical record.
Your consent form will be placed in your medical record at UAB Health System or Children's of Alabama. This may include either a paper medical record or electronic medical record (EMR). An EMR is an electronic version of a paper medical record of your care within this health system. Your EMR may indicate that you are on a clinical trial and provide the name and contact information for the principal investigator.
If you are receiving care or have received care within this health system (outpatient or inpatient), results of research tests or procedures (i.e. laboratory tests, imaging studies and clinical procedures) may be placed in your existing medical record.
If you have never received care within this health system (outpatient or inpatient), a medical record will be created for you to maintain results of research tests or procedures.
All information within your medical record can be viewed by individuals authorized to access the record.
A description of this clinical trial will be available on www.ClinicalTrials.gov, as required by U.S. Law. This website will not include information that can identify you. At most, the website will include a summary of the results. You can search this website at any time. The ClinicalTrials.gov Identifier is: NCT03808090.

Who may use and give out this information?

Information about your health may be used and given to others by the study doctor and staff. They might see the research information during and after the study.

Who might get this information?

All individuals/entities listed in the informed consent document(s), including but not limited to, the physicians, nurses and staff and others performing services related to the research (whether at UAB or elsewhere). Your information may also be given to the sponsor of this research. "Sponsor" includes any persons or companies that are working for or with the sponsor, or are owned by the sponsor, or are providing support to the sponsor (e.g., contract research organization).
Information about you and your health which might identify you may be given to:

- The Office for Human Research Protections (OHRP)
- The U.S. Food and Drug Administration (FDA)
- Department of Health and Human Services (DHHS) agencies
- Governmental agencies in other countries
- Governmental agencies to whom certain diseases (reportable diseases) must be reported
- The University of Alabama at Birmingham – the physicians, nurses and staff working on the research study (whether at UAB or elsewhere); other operating units of UAB, UAB Hospital, and UAB Highlands Hospital, as necessary for their operations; the UAB IRB and its staff
- The billing offices of UAB and UAB Health Systems affiliates and its billing agents

Why will this information be used and/or given to others?

Information about you and your health that might identify you may be given to others to carry out the research study. The sponsor will analyze and evaluate the results of the study. In addition, people from the sponsor and its consultants will be visiting the research site. They will follow how the study is done, and they will be reviewing your information for this purpose.
This research will be covered by a Certificate of Confidentiality from the National Institutes of Health. The researchers with this Certificate may not disclose or use information, documents, or biospecimens that may identify you in any federal, state, or local civil, criminal, administrative, legislative, or other action, suit, or proceeding, or be used as evidence, for example, if there is a court subpoena, unless you have consented for this use. Information, documents, or biospecimens protected by this Certificate cannot be disclosed to anyone else who is not connected with the

research except, if there is a federal, state, or local law that requires disclosure (such as to report child abuse or communicable diseases but not for federal, state, or local civil, criminal, administrative, legislative, or other proceedings, see below); if you have consented to the disclosure, including for your medical treatment; or if it is used for other scientific research, as allowed by federal regulations protecting research subjects.

This Certificate cannot be used to refuse a request for information from personnel of the United States federal or state government agency sponsoring the project that is needed for auditing or program evaluation by the NIH which is funding this project or for information that must be disclosed in order to meet the requirements of the federal Food and Drug Administration (FDA). You should understand that a Certificate of Confidentiality does not prevent you from voluntarily releasing information about yourself or your involvement in this research. If you want your research information released to an insurer, medical care provider, or any other person not connected with the research, you must provide consent to allow the researchers to release it.

The Certificate of Confidentiality will not be used to prevent disclosure as required by federal, state, or local laws.

The Certificate of Confidentiality will not be used to prevent disclosure for any purpose you have consented to in this informed consent document.

What if I decide not to give permission to use and give out my health information?

By signing this consent form, you are giving permission to use and give out the health information listed above for the purposes described above. If you refuse to give permission, you will not be able to be in this research.

May I review or copy the information obtained from me or created about me?

You have the right to review and copy your health information. However, if you decide to be in this study and sign this permission form, you will not be allowed to look at or copy your information until after the research is completed.

May I withdraw or revoke (cancel) my permission?

Yes, but this permission will not stop automatically. The use of your personal health information will continue until you cancel your permission.

You may withdraw or take away your permission to use and disclose your health information at any time. You do this by sending written notice to the study doctor. If you withdraw your permission, you will not be able to continue being in this study.

When you withdraw your permission, no new health information which might identify you will be gathered after that date. Information that has already been gathered may still be used and given to others. This would be done if it were necessary for the research to be reliable.

Is my health information protected after it has been given to others?

If you give permission to give your identifiable health information to a person or business, the information may no longer be protected. There is a risk that your information will be released to others. Including others outside of UAB, without your permission.

Voluntary Participation and Withdrawal

Whether or not you take part in this study is your choice. There will be no penalty if you decide not to be in the study. If you decide not to be in the study, you will not lose any benefits you are otherwise owed.

You are free to withdraw from this research study at any time. Your choice to leave the study will not affect your relationship with this institution. Contact the study doctor if you want to withdraw from the study.

You may be removed from the study without your consent if the study doctor decides it is not in the best interest of your health, or if you are not following the study rules.

If you are a UAB student or employee, taking part in this research is not a part of your UAB class work or duties. You can refuse to enroll, or withdraw after enrolling at any time before the study is over, with no effect on your class standing, grades, or job at UAB. You will not be offered or receive any special consideration if you take part in this research.

Cost of Participation
There will be no cost to you for taking part in this study.
Payment for Participation in Research
You will be paid $30 for completing all screening activities. If you provide stool you will be paid an additional $20. For completing the dietary study, you will be paid $90 for the 24-hr urine collections and blood draw on the controlled diet. If you quit the study, you will be paid $10 for each blood and urine sample you provided up to the maximum. You are responsible for paying any state, federal, Social Security or other taxes on the payments you receive. You will receive a form 1099 in January of the year following your participation in this study. This form is also sent to the IRS to report any money paid to you. No taxes are kept from your check.

Phases	Subtotal
Screening	$ 30
Stool Specimen	$ 20
Low Oxalate Diet Phase	$ 90
Total (all phases completed)	**$ 140**

Payment for Research-Related Injuries
UAB has not provided for any payment if you are harmed as a result of taking part in this study. If such harm occurs, treatment will be provided. However, this treatment will not be provided free of charge.

New Findings
You will be told by your doctor or the study staff if new information becomes available and might affect your choice to stay in the study.

Optional
Future Research Use of Identifiable Private Information and/or Identifiable Biospecimens
We would like your permission to keep your private information (data containing personal information) and biospecimens (blood and urine specimens) collected in this study for future research. The future research may be similar to this study or may be completely different. Your private information and biospecimens will be stored indefinitely or until used.
Your private information and biospecimens will be identifiable. Results of any future research will not be given to you or your doctor.
You can take part in this study even if you decide not to let us keep your identifiable private information and identifiable biospecimens for future research.
If you give us permission now to keep your identifiable private information and identifiable biospecimens, you can change your mind later and ask us to destroy it. However, once we have analyzed your private information and biospecimens, we may not be able to take it out of our future research.
We may share your identifiable private information and identifiable biospecimens, so that others can use it in their research. Their research may be similar to this study or may be completely different. Once we have shared your identifiable private information and identifiable biospecimens with other researchers, we will not be able to get it back.
Future research use of your identifiable private information and identifiable biospecimens will be conducted in compliance with applicable regulatory requirements.
You will not find out the results of the future research. Allowing us to do future research on your identifiable private information and identifiable biospecimens will not benefit you directly.

The identifiable private information and identifiable biospecimens used for future research may be used for commercial profit. There are no plans to provide financial compensation to you should this occur.

Initial your choice below:
____ I agree to allow my identifiable private information and identifiable biospecimens to be kept and used for future research on kidney stones.
____ I do not agree to allow my identifiable private information and identifiable biospecimens to be kept and used for future research.

Questions

If you have any questions, concerns, or complaints about the research or a research- related injury including available treatments, please contact Kyle Wood, MD. He will be glad to answer any of your questions. Dr. Kyle Wood may be reached by calling 205-934-3411, and ask to have him paged. Any general inquiries about the study protocol can be directed to our study coordinator **kidneystone@uabmc.edu.** They will be glad to answer any of your general questions.
If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the Office of the IRB (OIRB) at (205) 934-3789 or 1-800-822-8816. If calling the toll-free number, press the option for an operator/attendant and ask for extension 4-3789. Regular hours for the OIRB are 8:00 a.m. to 5:00 p.m. CT, Monday through Friday. You may also call this number in the event the research staff cannot be reached or you wish to talk to someone else.

Legal Rights

You are not waiving any of your legal rights by signing this informed consent document.

Signatures

Your signature below indicates that you agree to participate in this study. You will receive a copy of this signed document.

Signature of Participant	Date
Signature of Principal Investigator or Other Person Obtaining Consent	Date