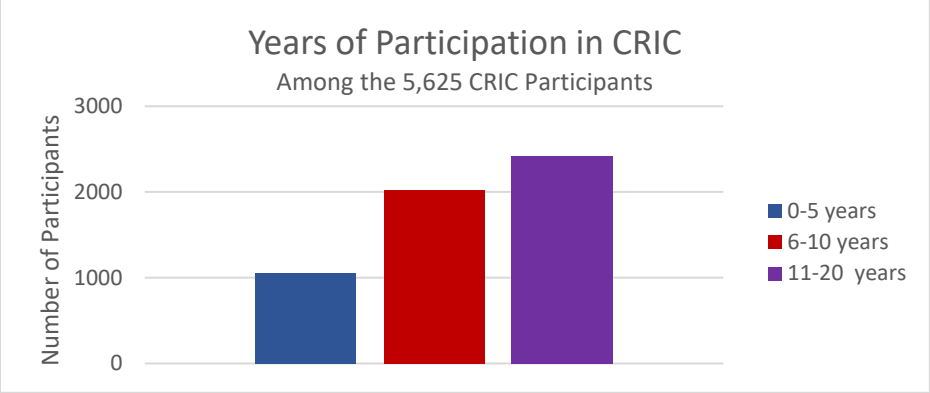
Newsletter of The Chronic Renal Insufficiency Cohort Study

Summer/Fall 2023 **Volume 28**

What's Inside

Dear CRIC Participants,

As you may already know from your communication with CRIC Study staff at your site, the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) at the National Institutes of Health (NIH) has extended funding for the CRIC Study for another 3 years! This will be the final planned phase of the study, Phase 5, and we are deeply appreciative of those CRIC participants who have been a part of CRIC throughout its 20+ years. The success of the CRIC Study comes from your longstanding commitment and participation. The graph depicted here shows the continued participation and growth of the CRIC Study throughout the years.



Your participation has led to the publication of over 300 scientific papers. This is quite an achievement, and you should be proud of your role in increasing our understanding of kidney disease. We have summarized one of these papers in this newsletter. Also, in this issue we highlight several key findings of the CRIC Study and we include information on how to talk to your family about kidney disease, preliminary results from the ZIO sub-study completed in Phase 4, an article from the Nation Council on Aging about older adults and falls, and a recipe for those with a sweet tooth. The recipe is for a chocolate mocha cheesecake that we hope you enjoy!

We are excited about the extension of the CRIC Study as this provides an exciting opportunity for us to continue to follow and collect important health information from our dedicated study participants. The investigators and coordinators at the CRIC Study Center where you are followed will be able to provide you with details about the fifth and final phase of CRIC.

Many thanks for your partnership in this critical study and your commitment to helping fight kidney disease. My colleagues and I are deeply appreciative of your willingness to continue this important work with us.

If you have any questions or comments about your experience in CRIC, please contact the investigators and staff at your CRIC Center.

Warm regards,

Laura Dember, MD

CHRONIC RENAL INSUFFICIENCY COHORT STUDY

Ultraprocessed Foods and Kidney Disease Progression, Mortality, and Cardiovascular Disease Risk in the CRIC Study.

Sullivan VK, Appel LJ, Anderson CAM, Kim H, Unruh ML, Lash JP, Trego M, Sondheimer J, Dobre M, Pradhan N, Rao PS, Chen J, He J, Rebholz CM; CRIC Study Investigators. Ultraprocessed Foods and Kidney Disease Progression, Mortality, and Cardiovascular Disease Risk in the CRIC Study. Am J Kidney Dis. 2023 Apr 6:S0272-6386(23)00585-1. doi: 10.1053/j.ajkd.2023.01.452. Epub ahead of print. PMID: 37028638.

Ultraprocessed foods are industrially manufactured products that contain little or no intact (whole) foods. They are often high in sodium, added sugars, and phosphate additives and low in fiber. Ultraprocessed foods are widely consumed in the US, comprising more than half of the calories consumed by the average American adult.

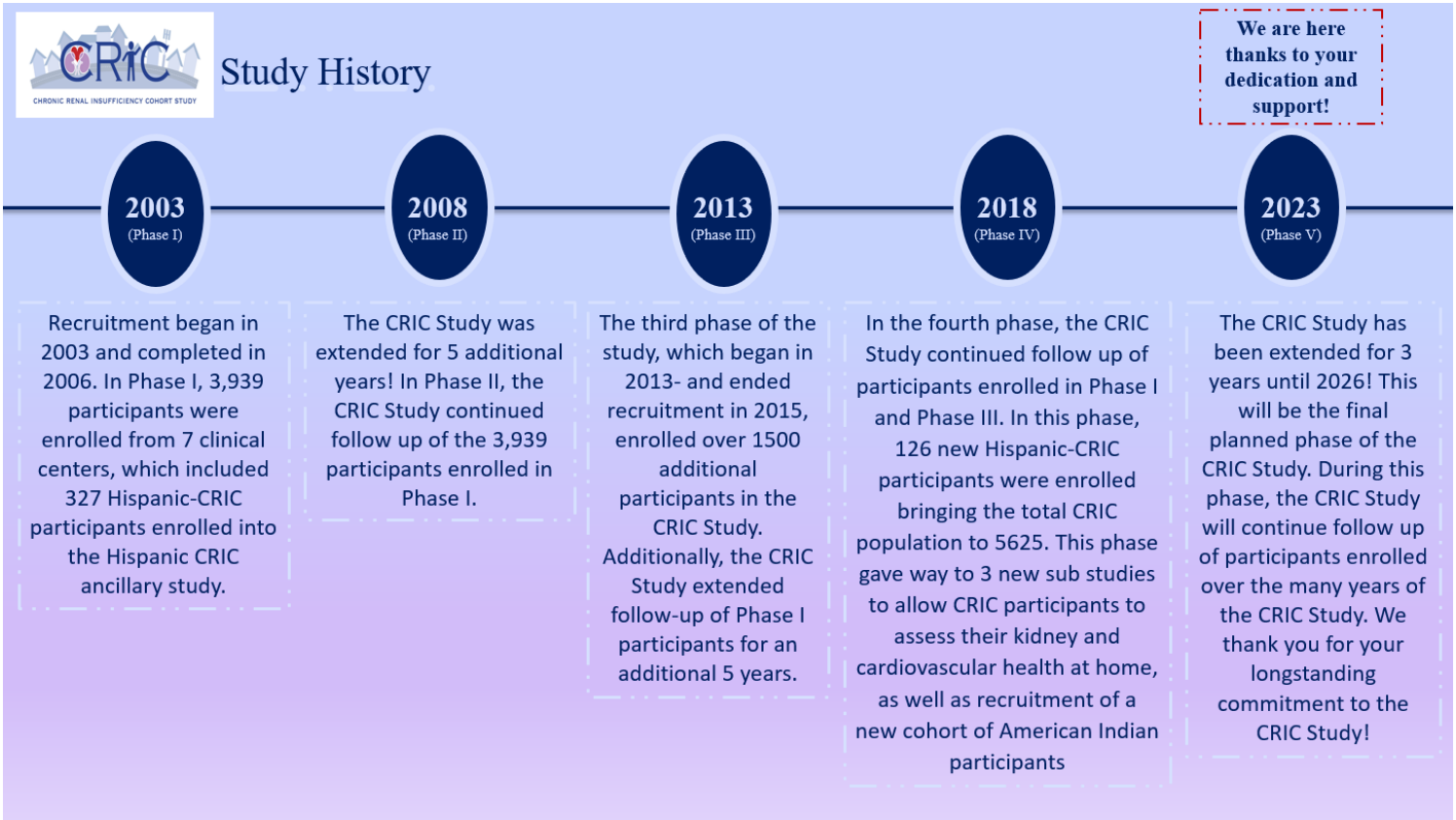
High consumption of ultraprocessed foods has been linked to an increased risk of cardiovascular disease, mortality, and kidney function decline in the general population. The poor nutritional quality of these foods may be especially harmful to patients with chronic kidney disease (CKD), who are advised to limit sodium and phosphate intake. Our aim was to investigate the association between ultraprocessed food intake and disease progression in adults with CKD.

We assessed intake of ultraprocessed foods using dietary questionnaires collected from 2,616 CRIC participants. The most common type of ultraprocessed foods consumed were beverages (e.g. sweetened sodas and fruit drinks), followed by snacks and sweets (e.g. chips, crackers, cakes, cookies). People who consumed the most ultraprocessed foods had lower intakes of fruits, vegetables, and dietary fiber, and higher intakes of sodium, added sugars, and saturated fats.

Over a period of nearly 17 years, people with the highest ultraprocessed food intakes had a higher risk of kidney disease progression compared to those with the lowest intakes. The association was strongest in those with earlier stage disease (CKD stages 1 and 2, or eGFR above 60 mL/min/1.73 m^2). Greater intake of ultraprocessed foods was also associated with a higher risk of mortality.

Our findings align with current dietary guidance to favor more fresh, whole, and homemade or hand-prepared foods and limit intake of highly processed foods. More research is needed to understand why ultraprocessed foods are associated with poor health.

History of CRIC



Family Kidney Health Discussion

National Institute of Diabetes and Digestive and Kidney Diseases: Family Reunion Kidney Health Guide

Family get togethers are a great time to talk about family health and make the "kidney connection". The Family Reunion Kidney Health Guide developed by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), an institute of National Institutes of Health (NIH), is a valuable resource for these discussions. It is important to make health a family reunion priority and let them know that diabetes and high blood pressure are the leading causes of kidney disease which disproportionately affects Black Americans. This will be a great time to discuss with family members the risk factors for kidney disease and testing that is available for diagnosing kidney disease. This guide provides information to make family kidney connections such as guidance for those at risk and steps to protect their kidneys. Having family members who are health professionals and getting them involved in these discussions also helps make a difference. If possible one can plan for screening by health professionals to check blood pressure, weight, blood glucose levels, etc. Conversations should include discussions about what happens to those with kidney disease and how it progresses into kidney failure resulting in the need for dialysis or kidney transplantation. Having diabetes, high blood pressure, cardiovascular disease, or a history of kidney failure or known kidney disease in an immediate family member (parents, siblings) increases one's risk of kidney disease. Both blood and urine testing are available to identify kidney disease. Blood testing provides the glomerular filtration rate (GFR) which indicates how well kidneys are filtering waste products and urine testing allows measurement of for albumin which is a protein that passes in excess in the urine when there is kidney damage. Additional measures include checking blood pressure regularly and taking blood pressure medication, if needed, under the supervision of a healthcare provider. Equally important is to keep diabetes under control with diet, medication, and regular physical activity. Encouraging family members to look out for each other or having a family health buddy to keep an eye on the family's health and periodically following up with those at risk can be helpful for keeping up with these healthy behaviors.

The guide stresses the need to prioritize the health of family and discusses three sample approaches for presenting information on kidney health to family members:

1. Kidney connection health discussion: The discussion takes about 15 minutes and provides information family members should know about kidney disease: risk factors for kidney disease, available testing, and what can be done to prevent further kidney damage.

2. One-on-one conversation with family: Talking with individual family members makes the conversations easy especially when you know which family members have diabetes or high blood pressure. Individual conversations also help identify others at risk and make the kidney connection. During these conversations one can stress the importance of acting right away and not waiting for kidney disease symptoms to develop for those at risk.

3. Connecting online or by email or phone: Current developments in technology have made it easier to connect with family at any time. If the family has a website, blog, or a Facebook group it can be easy to post information there and respond to questions securely if the family member wants their health information to be private.

Heart Rhythm Monitoring (Zio Patch)

Patients with chronic kidney disease have a higher risk for developing abnormal heart rhythms (also called arrhythmias) such as atrial fibrillation. However, most of these findings have been based on electrical recordings using a standard 12-lead electrocardiogram that is performed in a clinic or doctor's office. With current technology, it is possible to continuously monitor an individual's heart beat over an extended period. In the CRIC Study, we applied the ZIO XT patch (shown in the picture to the right) to assess the heart's rhythm over a 14-day period. A total of 1172 participants wore the ZIO XT patch and below are some of the key observations:

- Nearly all participants wore the monitor for the full 14-day period.
- There were 86 individuals who had evidence of atrial fibrillation, a common arrhythmia especially in older persons. Atrial fibrillation can increase the risk of blood clots, stroke, and other complications.
- Of the 86 participants, 55 had evidence of atrial fibrillation that was chronic and present at a previous study visit. There were 31 individuals who had intermittent episodes of atrial fibrillation that were detected only through the ZIO XT monitoring.
- Nearly one-third of the participants had evidence of non-sustained ventricular tachycardia, which is a brief episode of fast heart beats originating from the lower chamber of the heart (called the ventricles).

Overall, the findings from this study will help inform screening decision-making for atrial fibrillation in people with kidney disease. In addition, these findings set the stage for future studies that will evaluate how atrial and ventricular arrhythmias may impact other cardiac conditions such as heart failure, heart attack and stroke.

CHRONIC RENAL INSUFFICIENCY COHORT STUDY

Debunking the Myths of Older Adult Falls https://ncoa.org/article/debunking-the-myths-of-older-adult-falls

Many people think falls are a normal part of aging. The truth is, they are not. Most falls can be prevented—and you have the power to reduce your risk. Exercising, managing your medications, having your vision checked, and making your living environment safer are all steps you can take to prevent a fall. To promote awareness and understanding here are 10 common myths—and the reality—about older adult falls.

Myths	Realities	Myths	Realities
Falling happens to other people, not to me.	Many people think, "It won't happen to me." But the truth is that 1 in 4 older adults fall every year in the U.S.	Taking medication doesn't increase my risk of falling.	Taking any medication may increase your risk of falling. Medications affect people in many different ways and can sometimes make you dizzy or sleepy. Be careful when starting a new medication. Talk to your health care provider about potential side effects or interactions of your medications.
Falling is something normal that happens as you get older.	Falling is not a normal part of aging. Strength and balance exercises, managing your medications, having your vision checked, and making your living environment safer are all steps you can take to prevent a fall.	I don't need to get my vision checked every year.	Vision is another key risk factor for falls. Aging is associated with some forms of vision loss that increase risk of falling and injury. People with vision problems are more than twice as likely to fall as those without visual impairment. Have your eyes checked at least once a year and update your
If I limit my activity, I won't fall.	Some people believe that the best way to prevent falls is to stay at home and limit activity. Not true. Performing physical activities will actually help you stay independent, as your strength and range of motion benefit from remaining active. Social activities are also good for your overall health.	Using a walker or cane will make me more dependent.	Walking aids are very important in helping many older adults maintain or improve their mobility. However, make sure you use these devices safely. Have a physical therapist fit the walker or cane to you and instruct you in its safe use.
As long as I stay at home, I can avoid falling.	Over half of all falls take place at home. Inspect your home for fall risks. Fix simple but serious hazards such as clutter, throw rugs, and poor lighting. Make simple home modifications, such as adding grab bars in the bathroom, a second handrail on stairs, and non-slip paint on outdoor steps.	I don't need to talk to family members or my health care provider if I'm concerned about my risk of falling. I don't want to alarm them, and I want to keep my independence.	Fall prevention is a team effort. Bring it up with your doctor, family, and anyone else who is in a position to help. They want to help you maintain your mobility and reduce your risk of falling.
Muscle strength and flexibility can't be regained.	While we do lose muscle as we age, exercise can partially restore strength and flexibility. It's never too late to start an exercise program. Even if you've been a "couch potato" your whole life, becoming active now will benefit you in many ways—including protection from falls.	I don't need to talk to my parent, spouse, or other older adult if I'm concerned about their risk of falling. It will hurt their feelings, and it's none of my business.	Let them know about your concerns and offer support to help them maintain the highest degree of independence possible. There are many things you can do, including removing hazards in the home, installing safety features like grab bars or walk-in bathtubs, finding a falls prevention program in the community, or setting up a vision exam

Patient Testimonial

I think I have been with the CRIC Study for almost 20 years and I love it. They send a car to my house to pick me up, they take their time with me at each visit, they listen to me, and they call my doctor if anything is wrong. Its been a real blessing to be a part of this study. After the visit, if there is anything I need to worry about, one of the CRIC doctors will call me and go over the results from my visit, then they will call my doctor to follow up with me. I get a lot of information from the study. I find out what I need to be doing, I find out my levels, I see where I am. I participate in everything they ask me to do because these tests can be expense and aren't always offered by my doctor. I've done the sleep study, the kidney phone study, I did many different heart studies, and I just did the leg ultrasound study. I also like that its always the same people. They know me real well and I can't ask for more.

Chocolate Mocha Cheesecake

INGREDIENTS

- 12 ounces chocolate wafer cookies
- 1/4 pound butter, unsalted
- 12 ounces chocolate chips
- 12 ounces cream cheese
- 1/4 cup sugar
- 6 eggs
- 1 cup whipping cream (unwhipped)
- 2 teaspoons vanilla
- 1/4 cup coffee liqueur

Nutrition Facts *per serving*	
Calories	537
Carbohydrates	50 g
Protein	9 g
Dietary Fiber	34 g
Sodium	280 mg
Potassium	67 mg
Phosphorus	52 mg

https://www.nwkidney.org/recipe/chocolate-mocha-cheesecake/

PREPARATION

1. Preheat oven to 350 degree.
2. Crush wafer cookies.
3. Measure 3 cups of crumbs and cut in butter with a pastry blender.
4. Press into bottom and fill up to 3/4 of a 9" by 3" springform pan.
5. Refrigerate until firm.
6. Melt half the chocolate over simmering water. Let cool.
7. Beat cream cheese and sugar until light and fluffy; add eggs and beat well.
8. Add cream, vanilla, liqueur and melted chocolate and blend well.
9. Remove crust from refrigerator and evenly add filling.
10. Place in oven for 1 hour, and then check if center is solid (does not jiggle when lightly shaken). Leave in if needed.
11. Remove from Oven. Melt remaining chocolate and pour over the top. Let cool to solidify before serving.

Word Game

How many 6 letter words can you make from **CRIC Study**?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Answers: rustic, victus, cystic, crusty, curtsy, sturdy, circus, and citrus

We'd Love to Hear from You!

Do you have a question about the CRIC study or about kidney or heart disease?
If so, please contact your local CRIC staff by writing or calling:

Type message from site here

Looking forward to seeing you again soon!