

# LLFS NEWSLETTER



<https://longlifefamilystudy.wustl.edu>

## IN THIS EDITION

We are excited to share our summer newsletter! In this edition, we explain what happens during our study visit. Another new feature is our first Q&A with LLFS participants!

**The last day we are able to see you for this round of visits is March 31, 2024. Please give us a call if you have not yet been seen and would like to participate!**

As always, please do not hesitate to reach us at:

**Email: [agewell@bu.edu](mailto:agewell@bu.edu)**

**Phone: 888-333-6327**

### SAVE THE DATE!!!

#### LLFS Research Update FALL 2023

Join us on Wednesday, October 18, 2023 from 2-3 PM EST for an informational session led by LLFS researchers. We will share study updates, new findings, and answer your questions! Mark your calendar for this Webinar!

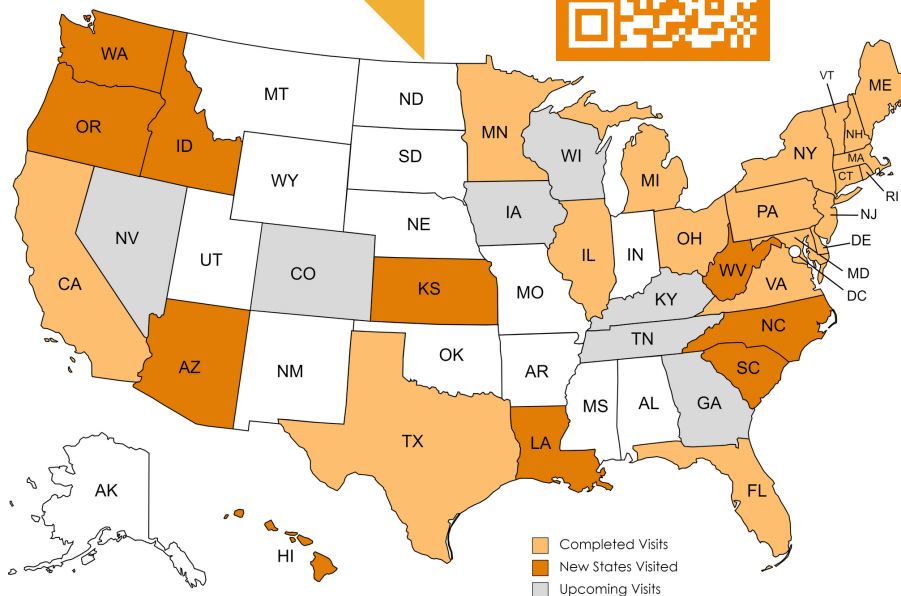
Please let us know if you plan to attend by emailing us at [longlifefamilystudy@wustl.edu](mailto:longlifefamilystudy@wustl.edu) Include any questions you would like answered during the webinar!

Join the webinar by scanning the QR code with your phone or going to the following website:  
<https://wustl-hipaa.zoom.us/j/99316689986>



## Travel Updates

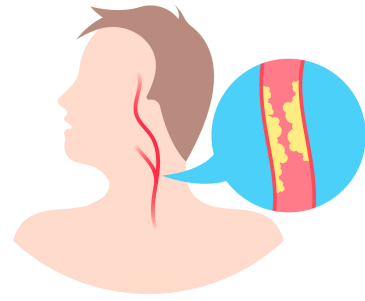
Since our Fall 2022 newsletter, we have been to 10 new states, and seen 535 participants.



# WHAT HAPPENS DURING YOUR VISIT?

## Carotid Ultrasound

Carotid ultrasound is a noninvasive scan used to evaluate the health of carotid arteries in the neck. It is performed with the participant lying down and usually takes about 30 minutes. In LLFS, carotid data are being studied to examine the link between the heart and brain. LLFS participants may carry genetic variants that result in healthier carotid vessels as we age. (1)



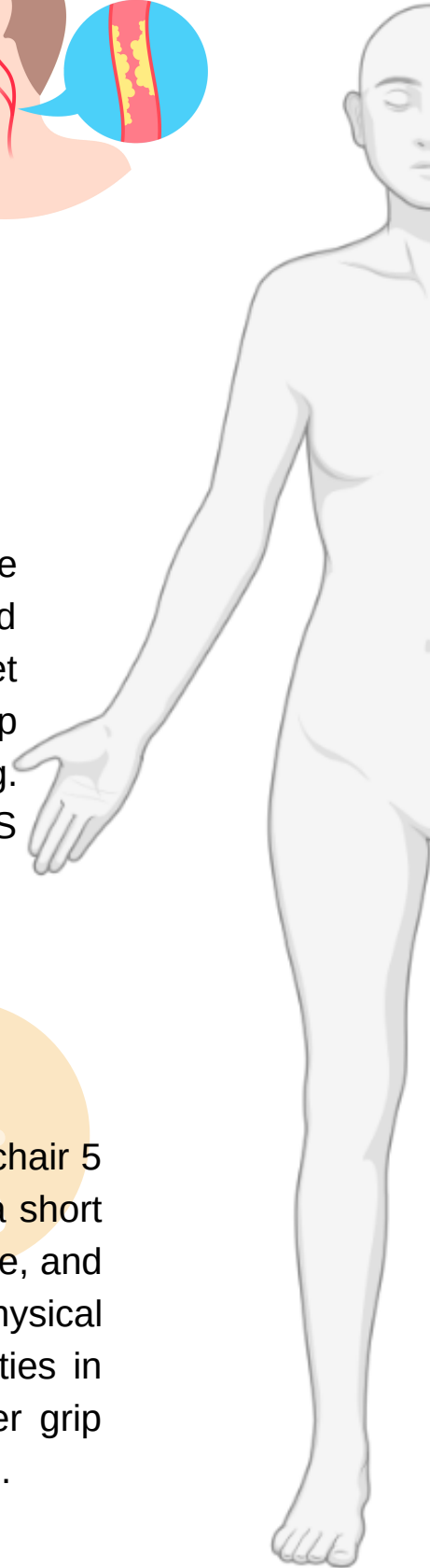
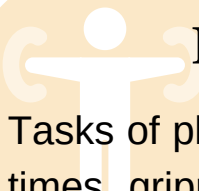
## Dietary Intake



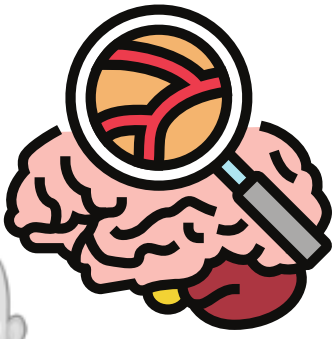
The food frequency questionnaire is used to capture a wide range of dietary habits across participants. It is well established that diet is an important part of a healthy lifestyle. In LLFS, diet information is broken down into various nutrients to help investigators analyze how dietary choices promote healthy aging. We recently introduced this questionnaire, stay tuned for LLFS findings related to dietary intake and longevity!

## Physical Performance Assessments

Tasks of physical function in LLFS include standing up from a chair 5 times, gripping a dynamometer to measure strength, walking a short distance, performing a series of movements to test your balance, and completing a one-minute sit-to-stand test to measure fitness. Physical function is also assessed through questionnaires about activities in daily life. We have learned that LLFS participants have better grip strength and walk faster compared to the general population (2).



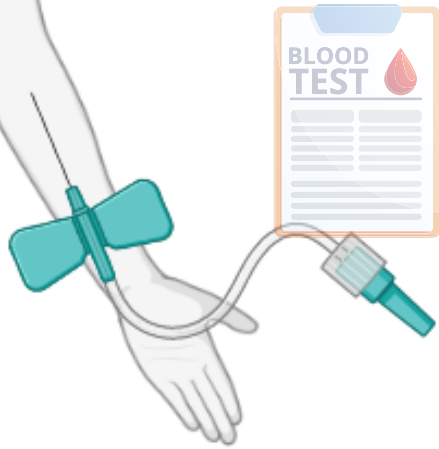
# Cognitive Assessment



One of the longest parts of the LLFS study visit is our cognitive assessment. This is where we ask you to do paper and pencil tasks that measure different aspects of your thinking abilities. In LLFS, we have found that exceptional memory runs in families and we have identified one of the genes that may be important for supporting healthy memory (3 & 4). A unique aspect of our study is that we use digital measures to analyze cognitive functioning on a more sensitive level. We are able to collect data on subtle features of movement and speed, speaking, and thinking, by using a digital pen.

## Blood Draw

The blood draw in our study is just like blood collection done at the doctor's office. The blood collected allows us to analyze aspects of biological aging and to measure levels of triglycerides, glucose, creatinine, cholesterol, and kidney and liver function. In the last few years, we added tests for Covid-19 antibodies. Through blood collection, we have learned that LLFS participants have lower lipid and glucose values and better kidney function than compared to individuals in the Cardiovascular Health Study (CHS) (2).



## The Big Picture

Taken together, these measures have revealed that LLFS families have better health outcomes such as lower rates of heart disease, and lower rates of hypertension and diabetes as compared to the general population. All these measures help us better understand exceptional longevity!

### References

1) Kuipers, A. L., Wojczynski, M. K., Barinas-Mitchell, E., Minster, R. L., Wang, L., Feitosa, M. F., ... & Zmuda, J. M. (2019). Genome-wide linkage analysis of carotid artery traits in exceptionally long-lived families. *Atherosclerosis*, 291, 19-26.

2) Newman, A. B., Glynn, N. W., Taylor, C. A., Sebastiani, P., Perls, T. T., Mayeux, R., ... & Hadley, E. (2011). Health and function of participants in the Long Life Family Study: a comparison with other cohorts. *Aging (Albany NY)*, 3(1), 63.

3) Barral, S., Cosentino, S., Christensen, K., Newman, A. B., Perls, T. T., Province, M. A., & Mayeux, R. (2014). Common genetic variants on 6q24 associated with exceptional episodic memory performance in the elderly. *JAMA neurology*, 71(12), 1514-1519.

4) Barral, S., Cosentino, S., Costa, R., Andersen, S. L., Christensen, K., Eckfeldt, J. ... & Mayeux, R. (2013). Exceptional memory performance in the Long Life Family Study. *Neurobiology of aging*, 34(11), 2445-2448.



# With LLFS Participants

Let us know if you would be interested in being featured in our next newsletter!

The interviews below are from participants from one family. This family first joined the study in 2007. Fifteen family members were originally enrolled during visit one. During this last round of visits, an additional 5 members joined.

Nancy F.

**Q: What got you interested in joining the study?**

**A:** My family was involved in the study and asked if I would be interested to participate.

**Q: What has your experience been like as a participant of the study?**

**A:** It has been very easy. I answer questions every year over the phone. Every few years there is a longer home visit.

**Q: What do you think is the secret to healthy longevity and how do you implement it into your life?**

**A:** Eating better and exercising more.

**Q: What is your favorite part of your in - person visit?**

**A:** I enjoy the visits and chats.

**Q: How has the study impacted you or your family?**

**A:** It is interesting to participate in the study to figure out why some people have longevity. It would be nice to find out.

**Q: Do you have a message you would like to share with current or future participants?**

**A:** I would say: "You are doing this for the good of society to share this knowledge. The more we can learn the better we all are for it."

Sara C.

**Q: What do you think is the secret to healthy longevity and how do you implement it into your life?**

**A:** Keeping an active body and mind. What I do to implement it is practice yoga and I keep an active mind by reading and doing crossword puzzles.

**Q: What is your favorite part of your in - person visit?**

**A:** It is fun to talk and learn more about the study as well as being part of the scientific process.

**Q: What got you interested in joining the study?**

**A:** My mother and aunts have been in the study for a long time. When I heard there was funding to include the grandchildren generation, I thought it was a good opportunity for our family to continue contributing to the study.

**Q: What has your experience been like as a participant of the study?**

**A:** It has been easy since I have heard about it for so long from my mom.

**Q: How has the study impacted you or your family?**

**A:** It has been interesting. It is satisfying to know it is something we do as a family.

**Q: Do you have a message you would like to share with current or future participants?**

**A:** I am proud to be contributing to the study and be doing it with my family.

Emily F.

**Q: What do you think is the secret to healthy longevity and how do you implement it into your life?**

**A:** I eat as many vegetables as I can and work out. I studied genetics in school, so I also know that genetics has something to do with it.

**Q: What is your favorite part of your in - person visit?**

**A:** The people who are doing the study are just as enthusiastic about the science as I am.

**Q: What got you interested in joining the study?**

**A:** My mom is a part of the study as well. When I learned that the next generation was being recruited, I was excited to join.

**Q: What has your experience been like as a participant of the study?**

**A:** It has been a limited one but a positive one overall.

**Q: How has the study impacted you or your family?**

**A:** It is interesting to see what medical findings can come up that can help our family.