

# The Official Newsletter of the **STROKE RECOVERY PROGRAM**

## ONGOING STUDIES:

### *v*REHAB

Study aiming to evaluate the safety, usability, and efficacy of a virtual reality biofeedback system to promote recovery of arm and hand function in the acute period after stroke.

### STRONG

Examines how our genes interact with rehab therapy and with stress to affect stroke recovery.



## STUDY SPOTLIGHT: **STROKECOG & STROKECOG LP**

Learn more about one of our ongoing studies!

StrokeCog is a study at Stanford that tracks memory and cognition over time with annual cognitive testing and a small blood draw. This study explores the relationship between cognition and biomarkers to understand why some people's thinking improves and other's does not after stroke. A sub-study, StrokeCog Lumbar Puncture (LP) looks more deeply at the relationship between brain inflammation and cognition (memory loss) after stroke. This research study analyzes cerebrospinal fluid (CSF). What is CSF and Why Obtain it? Cerebral Spinal Fluid (CSF) is a liquid that coats the brain, the spinal cord, and more specifically, the site of the stroke. CSF is the most important fluid in the body that tells us what is happening in the brain. This fluid will allow us to test our theory and better understand the role immune cells and proteins play after a stroke. We expect that this study will be the first step towards developing new treatments.

## STROKECOG FAQ: YOUR QUESTIONS ANSWERED!

### **Q: Does stroke really lead to dementia?**

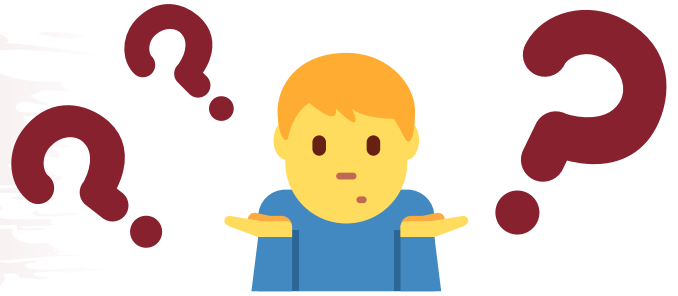
**A:** A stroke roughly doubles a person's chance of getting dementia in the next 10 years. From the study we hope to learn what causes dementia after stroke and what prevents it. Participants answer questions on their diet, exercise, and medical history so that we can learn what is protective as well as what may lead to dementia. They also donate a small amount of blood and those eligible donate CSF to the StrokeCog LP study, in addition, to yearly memory tests.

### **Q: What are we looking for in the blood?**

**A:** We are looking at white blood cells for signs of activation. We also study the fluid the cells float in, called plasma or serum, to see if there are higher or lower levels of immune proteins. At the end of the study we will ask if any of these measures can be used to predict who will have memory problems and who won't. The results may also tell us what drugs will be most useful in future clinical trials.

### **Q: What is the difference between looking for signs of inflammation in the CSF and blood?**

**A:** Although we hope we can detect inflammation in the blood related to cognition after stroke, the CSF is much more likely to reflect brain inflammation. CSF literally washes the brain daily, removing toxins along with the inflammatory proteins we are interested in discovering. By sampling CSF we get the closest we can get to the site of the stroke, and so will yield very valuable information. We will also compare the CSF results to the blood results to help us interpret the blood data from participants who cannot donate CSF.



### **Q: What does inflammation have to do with cognitive decline?**

**A:** Our leading theory is that post-stroke dementia is caused by chronic brain inflammation that is initiated by the stroke and persists in patients that develop dementia. We think this may be influenced by exercise, diet, or genetics and we've learned from research in mice that if we block this inflammation we can prevent post-stroke dementia. Our goal now is to learn if there is also an opportunity to do this in the future with people so that they won't develop dementia.

## SUPPORT THE STANFORD STROKE RECOVERY PROGRAM

**Learn more.** Visit our website to learn more about Stroke recovery and find more information about our ongoing trials.

**Participate.** Could you or someone you know benefit from participating in one of our studies? Let us know! Contact us for more information or visit [ClinicalTrials.gov](https://ClinicalTrials.gov) to find ongoing clinical trials near you.

**Donate.** Consider contributing to our cause and help others by supporting the research that helps develop novel therapies.

**Contact Us.** 650.723.8886 [StrokeRecovery@stanford.edu](mailto:StrokeRecovery@stanford.edu) <https://stan.md/StrokeRecovery>