

Principal Investigator: John M. Schweinfurth

Ancillary Study Title: Stroke Risk and Progression of Hearing Loss in the Jackson Heart Study

Institution Affiliation: University of Mississippi Medical Center

Project Overview

The contribution of cardiovascular disease (CVD) to the development of age-related, sensorineural hearing loss (SNHL) is not well understood. The cochlea is known to be very sensitive to ischemia. The prevalence of hypertension (HTN) and CVD in the Afro-American population in Mississippi (MS) is the highest in the nation. We predict a relationship between the incidence and severity of CVD and the development of SNHL. We will test our hypothesis by integrating an on-site, hearing screen protocol into the Jackson Heart Study. By providing on-site hearing evaluations, the proposed study will add minimal participant burden and significant potential benefit. By dovetailing into the second phase of the examination, hearing evaluations can be performed at the same time as regularly scheduled visits.

The initial phase, expected to require 3 years, will consist of a cross-sectional study of all JHS participants who return for examination in the parent study. The primary goal is to determine the character and prevalence of hearing disorders in the African American population as well as to identify a cohort of participants with no identifiable hearing deficits. The cohort subjects will make up the second, or prospective, phase of the study into the incidence of hearing loss (SNHL) as it relates to various cardiovascular disease risk factors as outlined by the Framingham Stroke Risk Profile. These participants can be examined at 5-year intervals for incidence of significant hearing changes. A direct relationship is expected between the severity of CVD and the development of SNHL.