



Impact of Diet on Alzheimer's Explored

Participants needed for study of MIND diet, Alzheimer's disease



January 3, 2017

Can a specific diet affect or prevent the development of Alzheimer's disease? A new study by researchers at Rush University Medical Center aims to answer this question.

Rush is currently seeking volunteers to participate in the study, which will begin in January. The study is funded by a \$14.5 million grant from the National Institute on Aging.

"This is the first study of its kind designed to test the effects of a diet on the decline of cognitive abilities among a large group of individuals 65 to 84 years old who currently do not have cognitive impairment," says Martha Clare Morris, ScD, a nutritional epidemiologist at Rush and principal investigator of the study.

Study will track 600 participants over three years

The MIND Diet Intervention to Prevent Alzheimer Disease is a randomized, Phase III study that will enroll 600 people who are overweight and have suboptimal diets, which make them vulnerable to Alzheimer's disease.

"While we know that there is a strong link between diet and health, intervention trials to examine whether a change in diet will help prevent Alzheimer's disease and other dementias have been largely neglected," Morris says. "The results of this study should help us to improve brain health by developing new dietary guidelines for clinical use and for public health education."

The trial will compare two different diet interventions, both of which will include dietary counseling with mild caloric restriction for weight loss. Participants of both groups will have

individualized diet guidelines developed by dietitians, and will receive regular phone and inperson consultations, as well as occasional group sessions over the three-year intervention.

Participants also will be seen five times over the three years to evaluate their mental abilities, blood pressure, diet, physical activity, health events and medication use. In addition, they will provide blood and urine samples for analysis during the visits. The subsample of 300 randomly selected participants who are placed on the MIND diet will undergo brain imaging at the outset and after three years to evaluate the MIND diet's effects on the structural integrity of the brain.

Fish and chicken, berries, nuts and leafy greens

The MIND diet has 14 dietary components, including nine "brain-healthy food groups" — such as chicken and fish, green leafy vegetables and berries, and nuts — and five unhealthy groups: red meat, butter and stick margarine, cheese, pastries and sweets, and fried or fast food.

In 2015, Morris and her colleagues at Rush and Harvard University developed the MIND diet — which is short for Mediterranean-DASH Intervention for Neurodegenerative Delay — in preparation for the trial. The diet is based on the most compelling research on the foods and nutrients that affect brain health.

As the name suggests, the MIND diet is a hybrid of the Mediterranean and DASH (Dietary Approaches to Stop Hypertension) diets. Both diets have been found to reduce the risk of cardiovascular conditions, such as hypertension, diabetes, heart attack and stroke.

"The best way to establish a cause-and-effect relationship between the MIND diet and reductions in the incidence of Alzheimer's disease is to conduct a large-scale randomized trial like this one," Morris says. "We hope to show that the MIND diet intervention is an effective strategy for preventing Alzheimer's disease."

In two studies published in 2015, Morris and colleagues found that the MIND diet could slow cognitive decline and lower a person's risk of developing Alzheimer's disease significantly, even if the diet was not followed meticulously. These were observational studies of self-reported diet that laid the groundwork for the MIND intervention trial.

"We devised the diet and it worked in the Chicago study," Morris says. "The results need to be confirmed by other investigators in different populations and also through randomized trials. A randomized trial is the best way to establish a cause-and-effect relationship between the MIND diet and reductions in the incidence of Alzheimer's diesease."

The current study has two clinical sites, Rush in Chicago and Harvard School of Public Health in Boston.

Those interested in participating in the study can call (708) 660-MIND (6463) or email mindstudychicago@rush.edu.