New Study to Test Effects of MIND Diet on Older Adults With Cognitive Impairment

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 ages 65 to 84 who currently do not have cognitive impairment began in January 2017.

The MIND Diet Intervention to Prevent Alzheimer’s Disease is a randomized, Phase 3 study that will enroll 600 individuals who are overweight and have suboptimal diets, making them vulnerable to Alzheimer’s disease.

The trial will compare two different diet interventions, both of which will include dietary counseling with mild caloric restriction for weight loss. Participants will have individualized diet guidelines developed by dietitians and will receive regular phone and in-person consultations, as well as occasional group sessions over 3 years.

Participants will also be seen five times during the 3 years to evaluate their mental abilities, blood pressure, diet, physical activity, health events, and medication use. They will also have blood and urine collections. A subsample of 300 randomly selected participants also will undergo brain imaging at the outset and after 3 years to evaluate the MIND diet’s effects on the structural integrity of the brain.


Presence of Lewy Body Dementia Linked to Higher Levels of Alzheimer’s Disease Pathology

Patients with Parkinson’s disease with dementia or Lewy body dementia (LBD), as well as higher levels of Alzheimer’s disease (AD) pathology in their donated post-mortem brains, also had more severe symptoms of these Lewy body diseases during their lives, compared to those whose brains had less AD pathology, according to a new study in Lancet Neurology First Online.

Researchers used post-mortem brain tissue donated by 213 patients with LBD and associated dementia, which was confirmed during autopsies to have alpha-synuclein pathology. They paired the tissue analysis with patients’ detailed medical records. This unique study combined data from eight academic memory or movement disorder centers.

None of the patients with LBD had a clinical diagnosis of AD, but their post-mortem brain tissue...
revealed varying amounts of AD neuropathology. Post-mortem analysis of five brain regions per patient showed that they fell into one of four categories of AD pathology: 23% negligible or no AD, 26% had low-level AD, 21% had intermediate AD, and 30% had high-level AD.

Increasing severity of AD pathology correlated with a shortened time from motor symptoms to the onset of dementia and death, with the most significant trends seen in the intermediate- and high-level AD groups compared to the low-level and no AD groups. Tau pathology, in particular, was the strongest predictor of a shorter time to dementia and death. AD pathology was also higher in patients who were older at the time of onset of motor symptoms and dementia.

Researchers also found that two relevant genetic variants in sequences of patients’ DNA samples correlated with the amount of AD pathology. Frequency of a genetic variant in a gene coding for a protein involved in cholesterol metabolism (i.e., APOE) was more frequent in patients who were in the intermediate- or high-level AD group compared to those in the low-level or no AD groups. Interestingly, a variation in the gene for the protein GBA was more frequent in patients without significant AD pathology. This gene is associated with LBD overall but not the subgroup with AD pathology.

Researchers used data from the National Social Life, Health and Aging Project (a nationwide survey of older adults that is funded by the National Institutes of Health) and examined more than 1,600 individuals ages 57 to 85 who identified as active alcohol consumers.

Among problem drinkers, or individuals who reported a high amount of negative consequences associated with alcohol use, researchers found that more than one half (66%) reported having MCHCs, and 28% reported having symptoms of depression. They also found that older adults who experienced MCHCs combined with depression were those who experienced the highest likelihood of problem drinking.

The study provided 94 adults 65 and older (who were determined healthy enough and had an interest in beginning a walking program) with a digital pedometer, walking goals, and weekly feedback on their progress. Participants were randomized into four groups: a control group (received weekly feedback only), financial incentives group (received $20 each week walking goals were met), social goal group (received a $20 donation to a charity of choice), and a combined group (received $20 each week walking goals were met, and could be received by the participant, donated to a charity of choice, or divided between the participant and charity).

During the 16-week intervention period, the number of days in which goals were met was higher in all groups compared to controls, showing that financial incentives, charitable donations, and a combination all increased the amount and retention of increased amounts of walking. When the incentive period ended after 16 weeks, all groups dropped down to walking levels seen in the control group.

At baseline, participants walked 4,556 steps per day. Walking goals were a 50% increase in steps. Average daily step counts during the intervention were 1,046 steps higher than baseline in the control group, 2,348 steps higher than baseline in the financial incentives group, 2,562 steps higher than baseline in the social goals group, and 1,692 steps higher than baseline in the combined group.