

New Tool Kit Helps Physicians Recognize and Manage Lewy Body Dementias

Lewy body dementia, the second-most-common progressive dementia after Alzheimer's disease, receives relatively few research dollars and often goes undiagnosed.

To improve the diagnosis and management of Lewy Body dementia, University of Cambridge has developed the DIAMOND-Lewy research program, a collaboration between Cambridge and Newcastle University.

DIAMOND Lewy team has developed two different tool kits—one to standardize the diagnosis of Dementia with Lewy Body (DLB), and the other for Parkinson's Disease Dementia (PDD). The DLB and PDD tool kits are freely available, along with a video describing their use.

After the tool kit was introduced in the UK, DLB diagnoses showed a 35 per cent increase. It has also led to better management of patient health, less cognitive decline in persons with DLB, less caregiver depression, stress and perceived emotional burden than those in the control group.

Source: <https://www.alzforum.org/news/conference-coverage/new-tool-kit-helps-physicians-recognize-and-manage-lewy-body-dementias>

Quantity and quality of mental activities and the risk of incident mild cognitive impairment (MCI)

Researchers conducted a prospective cohort study to investigate whether timing, and frequency of mentally stimulating activities in midlife and late-life are associated with the risk of incident mild cognitive impairment (MCI).

The study included 2,000 individuals under 70-years-old who were cognitively unimpaired at baseline and were followed for about five years.

The study found that engaging in a higher number of mentally stimulating activities, particularly in late life, is associated with a decreased risk of MCI among community-dwelling older persons.

Source: <https://n.neurology.org/content/early/2019/07/10/WNL.000000000007897>

MemTrax, An Online Test Helps Track Cognitive Problems in Alzheimer's disease

An online test, called MemTrax, may help screen and predict the progression of cognitive impairment in Alzheimer's and other disorders, according to a new study using artificial intelligence. However, results regarding its efficacy are not conclusive.

A team from Florida Atlantic University (FAU), MemTrax, SIVOTEC Analytics, the brain training program HAPPYneuron, and Stanford Medicine used supervised machine learning — a subset of artificial intelligence — and predictive statistical modelling to evaluate the utility of MemTrax to assess cognitive impairment.

The findings supported the clinical utility of MemTrax to assess cognition. Its comparison to the well-established Montreal Cognitive Assessment Estimation of mild cognitive impairment further revealed MemTrax's potential to assess short-term.

Source: <https://alzheimersnewstoday.com/2019/07/12/memtrax-test-helps-to-track-cognitive-problems-in-alzheimers-study-reports/>

Exploring a Herpes and Alzheimer's Connection

In a rare meeting of two worlds, experts on human herpesviruses (HHV) and Alzheimer's disease shared the stage at a special workshop at the 11th International Conference on HHV-6 and HHV-7, to discuss the role of Herpes virus in Alzheimer's disease.

After a day of discussion, the experts reached a consensus: Herpesviruses do not cause Alzheimer's disease.

Yet, because they seed, and speed, amyloid plaque deposition and inflame the immune system, they likely press on the gas pedal to accelerate the disease process. The scientists also agreed that much more work needs to be done on how viruses affect the brain.

Most importantly: Could targeting viral infection slow the onslaught of dementia? This is an entirely open question, warranting more research.

Source: <https://www.alzforum.org/news/conference-coverage/going-viral-alzheimers-research-herpes-conference>

On Risk Reduction

Low-Carb Diet May Improve Memory in People with Cognitive Problems, Small Study Suggests

A diet low in carbohydrates may have cognitive benefits for older adults with mild cognitive impairment, a small study suggests.

"Preliminary Report on the Feasibility and Efficacy of the Modified Atkins Diet for Treatment of Mild Cognitive Impairment and Early Alzheimer's Disease" was published in the Journal of Alzheimer's Disease.

The researchers enrolled 27 people, of whom 14 have completed the 12-week study, nine on the modified Atkins diet, five on the National Institute of Aging diet. Half the participants were female, with an average age of 71, and all were white except one.

Before the study, participants in the Atkins group were eating an average of 158 grams of carbs per day. Six weeks into the study, the average carb intake in the modified Atkins group was 38.5 grams and rose at 12 weeks to 53 grams.

Although diet adherence was not ideal, noticeable cognitive benefits were observed in the modified Atkins group, indicated by memory tests at the study's start, and at six and 12 weeks in. In tests of delayed recall, participants on the modified Atkins diet improved, on average, by about 15 per cent of the total score, while those on the control diet had a slight decline in memory scores.

These data suggest that cutting out carbs — even without great adherence to a diet — could be beneficial for people in the early stages of Alzheimer's.

If we can confirm these preliminary findings in larger studies, using dietary changes to mitigate cognitive loss in early-stage dementia would be a real game-changer.

Source: <https://alzheimersnewstoday.com/2019/07/03/low-carb-diet-may-improve-memory-in-people-with-cognitive-problems-study-suggests/>

Healthy Lifestyle Choices May Lower Risk of Cognitive Decline and Alzheimer's Dementia, Research Shows

In the study, "Impact of Healthy Lifestyle Factors on the Risk of Alzheimer's Dementia; Findings from Two Prospective Cohort Studies," researchers assessed the impact of five lifestyle choices — healthy diet, physical activity, no smoking, moderate alcohol intake, and maintaining an intellectually active lifestyle — on reducing the risk of Alzheimer's.

For each additional low-risk lifestyle factor, the risk of incident Alzheimer's disease was found to be lower. ***Participants who adopted four out of the five-lifestyle factors had a 59 per cent lower risk for developing Alzheimer's dementia compared with those that adopted one or none of the choices.***

Intellectual Activity Throughout Life Mitigates Increased Risk of Dementia from Air Pollution

More research is revealing that air pollution induces damage to the brain which translates into an increased risk for Alzheimer's and other dementias. In the study, "Heterogeneity in the Increased Risk for Alzheimer's Disease and Related Dementias Associated with Fine Particle Exposure: Exploring the Role of Cognitive Reserve," researchers at the University of Southern California assessed how cognitive stimulation modulated the link between air pollution exposure and Alzheimer's risk.

Women living in areas of high air pollution had an increased risk for Alzheimer's and other dementias. However, when divided according to their cognitive functioning scores, years of education, job status, and physical activity, the results showed that women with low cognitive reserve — the brain's capacity to cope with the negative impact of brain damage on cognition — had a much higher risk (113%) of developing dementia, when compared to those with higher cognitive reserve (21% risk).

This study showed that engaging in physically and mentally stimulating activities is an important element of cognitive reserve, and the resulting benefit may offer protection against brain damage caused by outdoor air pollution exposure in late life.

Impact of Early Adult to Mid-Life Cigarette Smoking on Cognitive Function

In the study “Early Adult to Mid-Life Cigarette Smoking and Cognitive Function: Findings from the Cardia Study”, researchers included 3,364 adults from the Coronary Artery Risk Development in Young Adults study. They were followed for 25 years.

Researchers found that having a heavy stable smoking trajectory consistently predicted poor cognitive performance, compared those who didn’t smoke.

Smokers who quit and minimal smokers did not have an increased risk of cognitive impairment, but smoking a pack a day for more than 10 years was associated with poor cognitive performance.

Overall, the results revealed that cigarette smoking in early- to mid-life adulthood was associated with cognitive impairment.

Impact of Alcohol Use Disorder on Dementia Risk

In the paper, “Alcohol Use Disorders in Female Veterans and the Impact on Dementia Risk,” researchers reported the detrimental effects of alcohol abuse.

In this study, researchers followed a group of 2,207 female veterans, 55 or older, with alcohol use disorder (AUD) and 2,207 age-matched female veterans without AUD.

The results showed that after an average follow up time of about three-and-a-half years, four per cent of women with AUD developed dementia compared to one per cent without AUD.

Source: <https://alzheimersnewstoday.com/2019/07/19/healthy-lifestyle-choices-may-lower-risk-of-cognitive-decline-and-alzheimers-disease-dementia-new-research-shows/>