News and Views

WHO Issues Guidance for GLP-1-based Obesity Care

Obesity has emerged as one of the most pressing global health challenges of the 21st century. An estimated 1 billion people currently are living with obesity, a number projected to reach 2 billion by 2030. The burden of disease transcends all regions, socioeconomic and age groups and incurs substantial morbidity, mortality, and economic costs. Hence, there is an urgent need for action to check this escalating crisis.

To address the growing obesity epidemic, the World Health Organization (WHO) has issued its **first-ever global guideline on the use of GLP-1 therapies,** including GLP-1 receptor agonists and GLP-1/GIP dual agonists (liraglutide, semaglutide, and tirzepatide), for adults living with obesity, along with intensive behavioral therapy "to maximize and sustain benefits".

Obesity is a chronic disease requiring lifetime care

the guideline recognizes obesity as "a chronic disease requiring lifetime care" with screening, early detection, management of obesity-related complications, and the use of pharmacological, surgical, or other treatments when appropriate. Hence, people with obesity should first receive personalized counseling on lifestyle and behavioral changes, including healthy eating and regular physical activity.

Key recommendations

These guidelines put forth **two major recommendations**. First, GLP-1 therapies may be used as a long-term treatment for obesity in adults with obesity, but excluding pregnant women. Second, for those prescribed GLP-1 therapies, counseling should be the initial step toward intensive behavioral and lifestyle changes, including diet and exercise. Both recommendations are conditional, acknowledging that fact that while GLP-1 therapies are effective, whether used alone or with behavioral support, evidence is of low to moderate certainty due to limited long-term data, high costs, inadequate health system preparedness, and equity concerns.

Addressing the obesity challenge through multisectoral action

Medicines are not a substitute for a healthy diet and physical activity, says the guideline, even though GLP-1 therapies are the first efficacious treatment option for adults with obesity. Successful implementation of these recommendations depends on widespread and equitable access to affordable GLP-1 therapies, readiness of the health system to deliver high-quality obesity care along with behavioral therapy, and above all, provision of care that is "person-centered, nondiscriminatory, and universally accessible" so that the benefits reach all those in need. The guideline ushers in shift in the global understanding of obesity, from a lifestyle condition to a complex, chronic, preventable, and treatable disease requiring sustained, multisectoral action.

About GLP-1 therapies

GLP-1 therapies were initially approved in 2005 by the US FDA for the treatment of type 2 diabetes. In September 2025, WHO added GLP-1 therapies to its Essential Medicines List for managing type 2 diabetes in high-risk groups. Liraglutide was the first GLP-1 agonist to get the FDA nod for chronic weight management in obese patients without diabetes. In 2021, semaglutide, another GLP-1 agonist, also was granted approval for this indication. In 2023, tirzepatide, a dual GLP-1/GIP receptor agonist, was accorded approval for chronic weight management.

Sources

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Routine Driving Patterns as Clues for Early Cognitive Decline

Evaluation of routine driving patterns may be a novel way to identify older adults who are at risk of cognitive

decline, according to a study published on Nov. 26, 2025, in the journal *Neurology*[1].

The objective of this prospective, observational cohort study was to determine if real-world driving behavior could differentiate older adults with mild cognitive impairment (MCI), a precursor to Alzheimer's disease, from those with normal cognition. It also sought to assess how well the driving features could discriminate between the two, compared with traditional risk factors.

The 298 study participants were selected from the Driving Real-World In-Vehicle Evaluation System Project at Washington University. All participants were driving at least once a week at baseline. They all underwent Clinical Dementia Rating assessment, neuropsychological testing, and apolipoprotein ε4 (APOE ε4) genotyping every year for the duration of the study, which was 40 months (3.3 years). GPS-enabled in-vehicle dataloggers were installed on their vehicles and used to monitor driving behavior to collect data on trip frequency, duration, distance, time of day, speeding, hard braking, and spatial mobility measures such as entropy, maximum distance traveled, and radius of gyration.

The study group included 56 participants with mild cognitive impairment, and 242 with normal cognition; their average age was 75 years. Women constituted 45.6% of the study group. The two groups were largely comparable in age, sex, race, and APOE ε4 status at baseline, including most driving behaviors. Over time, drivers with MCI exhibited progressive reduction in their monthly trip frequency (MCI –0.501 vs NC –0.523), especially nighttime trip frequency (MCI –0.334 vs NC –0.339), along with a decline in spatial mobility (MCI –0.008 vs NC –0.014) during the course of the study.

Driving measures including medium trip distance, speeding events, entropy, and maximum distance traveled were effective, in combination, in differentiating subjects with MCI from those with normal cognition, achieving an AUC of 0.82, indicative of a high discriminatory ability. Adding demographic, APOE ε4 (gene associated with Alzheimer's disease), and cognitive composite score further improved the accuracy of discrimination (AUC 0.87).

Cognitive functioning is crucial in determining driving ability and safety in older adults. These findings demonstrate that subtle shifts in driving behavior could potentially be an early indicator of cognitive decline in older adults, since those with MCI showed measurable changes in driving behavior. Evaluating the daily driving behavior of people with a GPS data tracking device allows assessment of their cognitive skills and ability to function. "This could help identify drivers who are at risk earlier for early intervention, before they have a crash or near miss", write the authors.

References

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Regular Siestas May Disrupt Glycemic Control in Type 2 Diabetes

Napping duration > 60 minutes, morning napping and appetitive napping (taking regular siestas) are associated with poor glycemic control in older patients with type 2 diabetes On the other hand, shorter naps (< 60 minutes), afternoon napping and restorative napping were associated with better glycemic control. These findings were published in the journal *Frontiers in Endocrinology*[1,2].

The primary aim of this cross-sectional study was to investigate if there was an association between various features of napping and glycemic control in patients with type 2 diabetes.

A total of 226 type 2 diabetes patients, from two community healthcare centers in China between May 2023 and July 2023, were included in the study. There were 122 women (54%) in the sample, and their median age was 67 years. The median HbA1c was 6.8%. Glycemic status was assessed by measuring HbA1c. Questionnaires were used to obtain information on various features of napping like duration, frequency, timing and type of napping behavior (restorative vs appetitive). The sleeplessness Severity Index was used to measure insomnia, while the Montreal Cognitive Assessment, and Patient Health Questionnaire-9 examined cognitive impairment and depression.

Of the 180 participants who reported naps, 61 (33.9%) reported taking naps lasting 60 minutes or more, 162 (90%) reported naps in the afternoon and 131 (72.8%) reported naps that were appetitive. The researchers found no significant relationship between napping frequency and HbA1c levels.

After adjusting for confounders such as age, sex, body mass index, T2D treatment regime, diabetes duration, cognitive impairment, depression, night sleep duration, and insomnia symptoms, the duration and timing of

naps appeared to influence glycemic control. Longer napping durations ≥60 minutes (vs short naps) and napping in the morning (vs afternoon/evening napping) were both associated with poorer glycemic control. The type of nap was also found to have correlation with glycemic control. Restorative napping was associated with better glycemic control compared to appetitive napping.

This study has demonstrated that daytime, including its length and type, is a significant modifiable factor in glycemic management in patients with type 2 diabetes. Understanding the impact of daytime napping on glycemic control in these patients is crucial for optimizing diabetes management strategies. Patients can be empowered to make informed choices about their napping habits such as taking a short nap (<60 minutes), avoiding appetitive napping and taking a nap in the afternoon instead of in the morning. Napping habits should therefore be a incorporated in diabetes care, including self-care as part of lifestyle interventions.

References

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Nutrient Determinants of Healthy Brain Aging

A specific nutrient profile, which includes nutrients present in the Mediterranean diet, has been found to be associated with delayed brain aging, according to a study published in the journal *NPJ Aging*[1].

Researchers at the University of Nebraska-Lincoln and University of Illinois in the United States collaborated for this multimodal cross-sectional study with 100 cognitively healthy participants aged 65 to 75 years. They were instructed to complete a questionnaire on demographic information, anthropometric measurements and physical activity. Fasting blood plasma samples were collected to measure 13 biomarkers of diet and nutrition. Cognitive evaluation was done with neuropsychological tests including the Wechsler Adult Intelligence Scale (WAIS), the trail-making test from the Delis-Kaplan Executive Function System (DKEFS) and the Wechsler Memory Systems (WMS). They also underwent MRI scans to assess brain health.

In order to guide the formulation of dietary guidelines intended to support healthy brain aging, this study aimed to discover nutrient biomarker patterns that are linked with accelerated versus delayed brain aging. The brain phenotypes were categorized as measured by magnetic resonance spectroscopy (MRS). Performance on measures of intelligence, executive function, and memory were compared between the accelerated versus delayed brain aging phenotypes. The study also sought to determine dietary biomarker profiles, with an emphasis on elements from the Mediterranean diet that are known to benefit cognitive performance and brain health.

Two phenotypes of brain aging were found on analysis: accelerated aging and slower-than-expected aging. The average brain age of participants with the accelerated aging phenotype was 65.1, while the average brain of people with the delayed aging phenotype was 59.7.

Compared to the accelerated aging phenotype, participants with slower or delayed brain aging showed a distinct nutrient profile with higher concentrations of 13 key nutrients including fatty acids (vaccenic, gondoic, alpha linolenic, eicosapentaenoic, eicosadienoic and lignoceric acids), carotenoids cis-lutein, trans-lutein and zeaxanthin, and vitamin E and choline. This nutrient profile correlates with the nutrients in the Mediterranean diet, which has been shown to be beneficial for brain health. The participants who showed this nutrient profile had better scores on cognitive assessments of intelligence, executive function, and memory and exhibited delayed brain aging.

The purpose of this study was to determine nutrient profiles linked to faster or slower aging of the brain. What makes this study unique is that it has combined blood biomarkers, cognitive assessments with validated scales and brain imaging rather than relying on one modality alone. Also, instead of focusing on a single nutrient, it has identified a specific nutrient biomarker profile associated with slower brain aging in participants who showed better cognitive performance.

The demographic and anthropometric factors, including physical fitness had no bearing on the observed differences in brain aging. Therefore, the differences observed can be attributed to the identified nutrient pattern. These findings pave the way for the development of neuroscience-guided dietary interventions to promote healthy brain aging. The authors conclude by stating that "future research can inform the development of more effective, targeted dietary interventions that apply methods in Nutritional Cognitive Neuroscience".

Reference

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