UK Department of Health Issues Physical Activity Guidelines

In an effort to combat obesity, the UK Department of Health has issued physical activity guidelines, including a flexible approach for busy adults.

The guidelines urge adults to achieve 150 minutes of activity per week, aiming for physical activity every day. The weekly time goal can be achieved in sessions of 10 minutes or more. The Department of Health also recommends that adults perform vigorous activity and muscle strengthening.

In its report, the Department of Health offers advice tailored to every age group, including children under age 5. Once they are able to walk, the report advises children under age 5 should complete 180 minutes of physical activity daily. Individuals aged 5 to 18 years should complete a minimum of 60 minutes and up to several hours daily of moderate to vigorous physical activity. Adults aged 19 to 64 years and individuals over 65 should perform 150 minutes each week of moderate to vigorous activity, the report concluded.

"The latest figures show that almost a quarter of adults are obese, and on current trends by 2050, it means nine in 10 adults with be overweight or obese," England's Chief Medical Officer Sally Davies, PhD, said in a news release. "We know that more than [60%] of adults are not active enough, which is why today the UK Chief Medical Officers are launching the first UK-wide guidelines that draw on the latest science to inform weekly levels of physical activity—whatever your age."

Maura Gillespie, Head of Policy and Advocacy at the British Heart Foundation, explained the inclusion of children under age 5. "Our childhood and teenage years are where we develop habits and lifestyles that generally continue throughout our adult life," she said in a news release. "So [it is] vital that parents introduce children to fun and physically active pastimes to help prevent them becoming obese children, who are likely to become obese adults at risk of heart disease, diabetes, and some cancers."

Moderate Exercise May Prevent Silent Brain Infarcts

Increased physical activity was associated with a lower risk of silent brain infarcts, according to a study published in *Neurology*.[1]

Joshua Z. Willey, MD, MS, of Columbia University in New York, and colleagues analyzed data from the Northern Manhattan Study, a population-based prospective cohort examining risk factors for incident vascular disease. The researchers studied the incidence of silent brain infarcts and white matter hyperintensity volume in a subsample of 1,238 patients who underwent brain MRI.

Baseline measures of leisure-time physical activity were collected, and physical activity was categorized by quartiles of the metabolic equivalent score. Logistic and linear regression models were used to examine the association between physical activity and silent brain infarcts and the association between physical activity and white matter hyperintensity volume, respectively.

Of the eligible clinically stroke-free participants (mean age, 70 ±9 years), 60% were women, 65% were Hispanic, and 43% reported no physical activity. A total of 197 participants (16%) had silent brain infarcts. In fully adjusted models, patients in the upper quartile of metabolic equivalent scores were almost half as likely to have silent brain infarcts as those who did not engage in physical activity. Physical activity was not associated with white matter hyperintensity volume.

1. Willey JZ, Moon YP, Paik MC, et al. Lower prevalence of silent brain infarcts in the physically active. *Neurology*. 2011;76(24):2112-2118.

Atrial Fibrillation Increased Risk of Death in Healthy Women

Among a group of otherwise healthy middle-aged women, atrial fibrillation was associated with an increased risk of premature death, according to a study in the *Journal of the American Medical Association*.[1]

David Conen, MD, MPH, of University Hospital in Basel, Switzerland, and colleagues analyzed data from 34,722 initially healthy women enrolled in the Women's Health Study. All participants were older than 45 years of age and free of atrial fibrillation and cardiovascular disease at baseline; 95% were white. Cox proportional hazards models with time-varying covariates were used to determine the risk of events among women with incident atrial fibrillation. Secondary analyses were performed among women with paroxysmal atrial fibrillation.

During a median follow-up of 15.4 years, 1,011 women developed atrial fibrillation. Incidence rates per 1,000 person-years among women with and with-

out atrial fibrillation were 10.8 (95% confidence interval [CI], 8.1–13.5) and 3.1 (95% CI, 2.9–3.2) for all-cause mortality, 4.3 (95% CI, 2.6–6.0) and 0.57 (95% CI, 0.5–0.6) for cardiovascular mortality, and 6.5 (95% CI, 4.4–8.6) and 2.5 (95% CI, 2.4–2.6) for noncardiovascular mortality, respectively. In multivariate models, hazard ratios (HR) of new-onset atrial fibrillation for all-cause mortality, cardiovascular mortality, and noncardiovascular mortality were 2.14 (95% CI, 1.64–2.77), 4.18 (95% CI, 2.69–6.51), and 1.66 (95% CI, 1.19–2.30), respectively. Among women with paroxysmal atrial fibrillation (n=656), the increase in mortality risk was limited to cardiovascular causes (HR, 2.94; 95% CI, 1.55–5.59).

1. Conen D, Chae CU, Glynn RJ, et al. Risk of death and cardiovascular events in initially healthy women with new-onset atrial fibrillation. *JAMA*. 2011;305(20):2080-2087.

Central Obesity, Not BMI, Associated With Increased Mortality in Heart Disease

In patients with coronary artery disease, excess fat around the waist was associated with increased mortality, even in those who had normal body mass indexes (BMIs), according to a study in the *Journal of the American College of Cardiology*.[1]

Thais Coutinho, MD, of the Mayo Clinic in Rochester, Minnesota, and colleagues conducted a meta-analysis of five international studies (four published, one unpublished) and obtained data from a total of 15,923 patients. Of these participants, 6,648 had normal BMIs and 2,396 were obese (BMI of at least 30 kg/m^2). A variable called central obesity was created based on two measures: waist circumference and waist-to-hip ratio.

During a median follow-up of 2.3 years, 5,696 deaths occurred. Central obesity was associated with mortality (HR, 1.70; 95% CI, 1.58–1.83). BMI, however, was inversely associated with mortality (HR, 0.64; 95% CI, 0.59–0.69). Central obesity was associated with higher mortality in patients with normal BMI (HR, 1.70; 95% CI, 1.5–1.89) and in obese individuals (HR 1.93; 95% CI, 1.61–2.32).

"We suspected that the obesity paradox was happening because BMI is not a good measure of body fat and gives no insight into the distribution of fat," Dr. Coutinho said in a Mayo Clinic news release. "BMI is just a measure of weight in proportion to height. What seems to be more important is how the fat is distributed on the body." ■

1. Coutinho T, Goel K, Corrêa de Sá D, et al. Central obesity and survival in subjects with coronary artery disease. *J Am Coll Cardiol*. 2011;57:1877-1886.

– Compiled by Callan Navitsky, Assistant Editor