

U.S. obesity rates leveling off – one-third of adults are obese

In 2008, the prevalence of obesity in the U.S was 32.2% among adult men and 35.5% among adult women. Though the prevalence of obesity showed a striking increase in the 1980s and 1990s, the data from Flegal et al suggest that obesity prevalence was relatively stable using 2007-2008 data.

JAMA 303, 235-241, 2010 DOI: [10.1001/jama.2009.2014](https://doi.org/10.1001/jama.2009.2014)

MEND program in prevention and treatment of childhood obesity

A study evaluating the effectiveness of the MEND Program (Mind, Exercise, Nutrition, Do it!), a multi-component community-based childhood obesity intervention, published in the journal *Obesity*, demonstrate its success in prevention and treatment of childhood obesity.

***Obesity*, 18: S62-S68, 2010 DOI: [10.1038/oby.2009.433](https://doi.org/10.1038/oby.2009.433)**

Anthocyanins in blueberries lower blood glucose and improve insulin sensitivity

Researchers from Japan have tested the effect of blueberry extract on blood glucose levels in diabetic mice. They show that dietary blueberry extract can lower blood glucose and improve insulin sensitivity through activation of the AMPK pathway.

***Journal of Nutrition* 140:527-533, 2010 DOI: [10.3945/jn.109.118216](https://doi.org/10.3945/jn.109.118216)**

Coffee and tea consumption and risk of type 2 diabetes

In a recent publication, van Dieren et al (2009) show that drinking coffee or tea is associated with a lowered risk of type 2 diabetes, which cannot be explained by magnesium, potassium, caffeine or blood pressure effects. These studies suggest that total consumption of at least three cups of coffee or tea per day may lower the risk of type 2 diabetes.

***Diabetologia* 52, 2561-2569, 2009 DOI: [10.1007/s00125-009-1516-3](https://doi.org/10.1007/s00125-009-1516-3)**

Women With Type 1 Diabetes Receive No Heart Benefit From Omega-3

Medical News Today (06/28/10)

Consuming higher amounts of omega-3 fatty acids does not lower heart disease risk for women with type 1 diabetes, according to a study from the University of Pittsburgh Graduate School of Public Health, presented at the 70th Scientific Sessions of the American Diabetes Association. The study involved 601 men and women who had been enrolled in the Pittsburgh Epidemiology of Diabetes Complications Study and were diagnosed with type 1 diabetes between 1950 and 1980. Although omega-3 is known to promote heart health by preventing the buildup of cholesterol, little has been known about the effect of its consumption in people with type 1 diabetes. The study found that the incidence of heart disease was lowest in men who consumed the highest quantities of omega-3, but women who consumed similar amounts of omega-3 did not have lower rates of heart disease.

Association Between Adiposity in Midlife and Older Age and Risk of Diabetes in Older Adults

Journal of the American Medical Association (06/30/10) Vol. 303, No. 24, P. 2504; Biggs, Mary L.; Mukamal, Kenneth J.; Luchsinger, Jose A.; et al.

Researchers sought to determine the relationship between body composition and type 2 diabetes among older adults. The research team recruited more than 4,100 men and women, ages 65 years and older, to examine the relationship between adiposity, changes in adiposity, and risk of incident type 2 diabetes. Over a median follow-up of about 12 years, there were 339 cases of incident diabetes.

Compared with weight-stable participants, those who gained the most weight from 50 years of age to baseline, and from baseline to the third follow-up visit, had greater risks of type 2 diabetes. The authors concluded that among older adults, overall adiposity and higher waist circumference, as well as weight gain during middle age and after the age of 65, are linked to type 2 diabetes risk.

Insufficient Vitamin D Tied to Severe Asthma Attacks

Reuters Health Information Services (06/23/10)

A new study led by Dr. Augusto A. Litongua of Harvard Medical School indicates that children with asthma who have comparatively low vitamin D levels may be more likely to have severe asthma attacks compared to those with higher levels of the vitamin. The study, published in the *Journal of Allergy & Clinical Immunology*, followed more than 1,000 children with asthma for four years. During the study, 38 percent of children with insufficient vitamin D levels went to the emergency room or were hospitalized for intensified asthma, compared to 32 percent of children with sufficient levels of the vitamin. But vitamin D insufficiency by itself was linked to a 50 percent increase in the risk of severe asthma attacks when taking other factors into consideration, such as the severity of the children's asthma at the study's start, weight, and family income. People are generally regarded as having a clear deficiency in vitamin D when blood levels drop below 11 ng/mL. For their study, Litongua and his team considered children with vitamin D levels of 30 ng/mL or lower as being insufficient in the vitamin. Using blood samples taken at the start of the trial, Litongua's team found that 35 percent of 1,024 children with mild-to-moderate asthma had vitamin D insufficiency and 65 percent had sufficient levels.

Lots of Coffee Lowers Oral Cancer Risk

WebMD (06/22/10) DeNoon, Daniel J.

Drinking large amounts of coffee appears to reduce a person's risk of mouth and throat cancer, according to researchers at the University of Milan. The researchers evaluated nine studies comparing 5,139 people with head and neck cancer to 9,028 people without cancer. The data indicated that people who drink more than four cups of coffee each day are 39 percent less likely to get mouth or throat cancer, compared to people who do not drink coffee. The protection was observed for oral and pharyngeal cancer but not for cancer of the larynx. Drinking less than five cups of coffee per day had a smaller but statistically significant protective effect--approximately 4 percent lower odds of mouth and throat cancer for each cup drunk daily. In contrast, drinking tea in large quantities did not provide any protective effect. The findings are published in the journal *Cancer Epidemiology, Biomarkers & Prevention*.

Low Vitamin D May Be Risk Factor for Metabolic Syndrome

Endocrine Today (06/20/10)

A study of 1,289 elderly men and women has found a link between vitamin D deficiency and elevated risk for metabolic syndrome. The study demonstrated that older people with a serum 25(OH)D level below 50 nmol/L had a higher risk for metabolic syndrome compared to people with a level higher than 50 nmol/L. The association was primarily determined by the risk factors of low HDL and increased waist circumference. Of the patients included in this study, about 37 percent of the older study population had metabolic syndrome, based on the National Cholesterol Education Program Adult Treatment Panel III definition. Subjects with metabolic syndrome had a mean vitamin D level of 50.78 nmol/L, while those without metabolic syndrome had a mean level of 55.09 nmol/L. Based on their findings, the researchers suggested that adequate levels of vitamin D may help prevent metabolic syndrome.

Obese Women With Insulin Resistance Lose More Weight on Lower-Carbohydrate Diet: Study

News-Medical.Net (06/21/2010)

Insulin-resistant obese women lose more weight after three months of a lower-carbohydrate diet than on a traditional low-fat diet with the same caloric intake, according to a new study to be presented at The Endocrine Society's 92nd Annual Meeting in San Diego. Physicians typically recommend low-fat diets for weight loss, but the study results show that patients do not respond equally to diets. The 12-week study was funded by Jenny Craig and used prepared, calorie-controlled meals as part of a

behavioral weight loss program. Out of 45 female study subjects, those on a lower-carb diet lost 3.4 pounds more than those on a low-fat diet. The study included women ages 18 to 65 years, all of whom had insulin resistance and were randomly assigned to either a low-fat or lower-carb diet. The low-fat diet included 60 percent of calories from carbs, 20 percent from fat, and 20 percent from protein. The lower-carb diet had 20 percent of calories from protein, 45 percent from carbs, and 35 percent from primarily unsaturated fats, such as nuts. The diets also included a minimum of two fruits and three vegetable servings a day. Both groups lost weight at each monthly weigh-in, but by 12 weeks, the lower-carb diet group had lost an average of 19.6 pounds, compared to 16.2 pounds in the low-fat diet group.

White Rice, Brown Rice, and Risk of Type 2 Diabetes in U.S. Men and Women

Archives of Internal Medicine (06/14/10) Vol. 170, No. 11, P. 961; Sun, Qi; Spiegelman, Donna; van Dam, Rob M.; et al.

Type 2 diabetes risk may be lowered by substituting whole grains, including brown rice, for white rice. This supports the recommendation that most carbohydrate intake should come from whole grains rather than refined grains. Researchers prospectively obtained the diet, lifestyle practices, and disease status among 39,765 men and 157,463 women in the Health Professionals Follow-up Study and the Nurses' Health Study I and II. After adjusting for age and other lifestyle risk factors, higher intake of white rice (five or more servings per week vs. less than one per month) was associated with a higher risk of type 2 diabetes. High brown rice intake (two or more servings per week vs. less than one per month) was associated with a lower risk of type 2 diabetes. The researchers estimated that replacing a daily intake of 50 grams per day of white rice with the same amount of brown rice was associated with a 16 percent lower risk of type 2 diabetes, while the same replacement with whole grains as a group was linked to a 36 percent lower diabetes risk.

Serum B Vitamin Levels and Risk of Lung Cancer

Journal of the American Medical Association (06/16/10) Vol. 303, No. 23, P. 2377; Johansson, Mattias; Relton, Caroline; Ueland, Per Magne; et al.

Smokers with higher blood levels of B6 and the amino acid methionine may have a lower risk of getting lung cancer than smokers who are deficient in these nutrients, according to a study of about 900 lung cancer patients from the European Prospective Investigation into Cancer and Nutrition. This association may indicate why some smokers do not get lung cancer and why some non-smokers and former smokers do. Researchers examined the odds ratios of lung cancer by serum levels of vitamins B2, B6, folate (B9), and B12, as well as methionine and homocysteine. The findings also support previous research that has suggested that B-vitamin deficiencies may compromise DNA integrity and lead to gene mutations. Having above-median levels of serum methionine and B6 were linked to a lower lung cancer risk overall, as well as separately among former and current smokers and in those who had never smoked.

Obesity Is Found to Take Toll After Age 40

New York Times (06/01/10) P. D6; Rabin, Roni Caryn

Although obesity has been linked to type 2 diabetes and heart disease, new findings suggest that it may not take effect until after age 40. Researchers compared the medications taken by normal weight, overweight, and obese Americans who participated in National Health and Nutrition Examination Surveys from 1988-1994 and 2003-2006. Survey participants included 8,880 men and 9,071 women. Obese people of all ages took slightly more medications than those of normal weight, but the greatest differences were among adults 40 years and older. Among men aged 40 to 54, 60 percent of obese men were on medication, compared with slightly less than 40 percent of men of average weight. The study is published in the International Journal of Obesity.

Vitamin D Status Is Not Associated With Risk for Less Common Cancers

NIH News Release (06/18/10)

A large study has found that higher blood levels of vitamin D do not provide a protective effect against

rarer cancers like non-Hodgkin lymphoma or cancer of the endometrium, esophagus, stomach, kidney, ovary, or pancreas. The study was carried out by researchers from the National Cancer Institute (NCI) and other research institutions, and relied on data based on blood samples originally drawn for 10 individual studies. Details of these analyses appear as a set of papers in the American Journal of Epidemiology. As part of a collaborative effort of the NCI Cohort Consortium, investigators from the Vitamin D Pooling Project of Rarer Cancers examined vitamin D levels in blood that had been collected from over 12,000 men and women participating in one of the studies, of whom some went on to develop cancer. Vitamin D concentrations were measured using 25-hydroxyvitamin D. Participants were followed for up to 33 years, depending on the study. The researchers compared cancer rates in participants whose levels of vitamin D in stored blood were high (above 75 nanomoles per liter) or low (less than 25 nmol/L) to rates in subjects whose levels of vitamin D were within the normal range (50 to 75 nmol/L). "In this pooled analysis of cohort data, vitamin D was not associated with lower risk for these less common cancers, despite well-established benefits for bone health," concluded Dr. Demetrius Albanes, one of the study investigators at NCI.

Panel Suggests Ways to Improve Nutrition

Wall Street Journal (06/16/10) P. D3; Gray, Eliza

The federal Dietary Guidelines Advisory Committee, comprised of 13 nutrition experts, will develop nutritional recommendations for the next food pyramid update. The panel recommends consuming more vegetables and whole grains, while reducing consumption of fatty meats, salt, and sugar. This report is partially intended to tackle what has been called a national obesity epidemic. Children should be discouraged from drinking sugar-sweetened beverages, according to the report, and should get more physical exercise. People should limit their saturated fat to less than 7 percent of overall caloric intake and should not consume more than 1,500 mg of salt each day. Congress mandates that nutritional guidelines be revised every five years.

Early Soda Drinking Tied to Unhealthy Diet

Times of India (06/09/10)

New findings from a study that studied girls from age five to 15 years of age conclude that soda drinking is associated with poor diet and higher health risks later in life. The girls who drink soda at age five were less likely to have diets that met nutritional standards. Girls who did not drink soda also failed to meet certain nutritional recommendations, but they had healthier diets overall. One problem found was that soda drinkers drank less milk than non-soda drinkers, and this can lead to low calcium intake and has been shown to contribute to type 2 diabetes, bone fractures, and dental problems. The study found that consumption of soda intake rose even more after age 15 in soda drinkers compared to the other girls. The study is published in the Journal of the American Dietetic Association.

Chocolate May Cut Cholesterol But Only in Some People

Reuters (06/01/10)

An analysis of eight studies has found that eating chocolate may lower cholesterol levels for some individuals. Researchers from the Chinese Academy of Medical Sciences and Peking Union Medical College in Beijing found that chocolate helped only people who already had risk factors for heart disease and only when eaten in small amounts. The researchers report in the American Journal of Clinical Nutrition that the cholesterol-lowering benefits from cocoa did not extend to healthy people, but people with risk factors for heart disease, such as diabetes, experienced an LDL cholesterol and total cholesterol decline of about 8 mg/dL each.

The Effects of Weight Loss and Gastric Banding on the Innate and Adaptive Immune System in Type 2 Diabetes and Prediabetes

Journal of Clinical Endocrinology & Metabolism (06/10) Vol. 95, No. 6, P. 2845; Viardot, A.; Lord, V.; Samaras, K.

Researchers have found that calorie restriction before and after gastric banding reduces the activation of circulating immune cells of the innate and adaptive immune system in people with type 2 diabetes or

prediabetes. Australian scientists observed 13 obese patients with either type 2 diabetes or prediabetes who underwent 24-week calorie restriction, with gastric banding surgery occurring at week 12. The study measured weight, waist, insulin resistance, surface activation marker expression on circulating immune cells, and T-helper cell polarization. The researchers found significant reductions in expression of proinflammatory activation markers, while proinflammatory Th1 cell levels declined by more than 80 percent, as did the Th1 to Th2 ratio. Overall, the mean weight loss was 13.5 percent. Individuals with prediabetes experienced the most pronounced reduction in immune cell activation. In conclusion, the researchers suggest that "the role of immune cells in the chronic inflammation of obesity and [type 2 diabetes] requires further investigation."

Healthy Diets and the Subsequent Prevalence of Nuclear Cataract in Women

Archives of Ophthalmology (06/10) Vol. 128, No. 6, P. 738; Mares, Julie A.; Volland, Rick; Adler, Rachel; et al.

New research provides additional evidence that eating foods rich in a variety of vitamins and minerals may help postpone the occurrence of nuclear cataracts, the most common type of cataract in the United States. Researchers assessed the association between adherence to U.S. dietary guidelines and prevalence of nuclear cataract four to seven years later. The study used a sample of participants from the Women's Health Initiative Observational Study participants (aged 50-79 years) living in Iowa, Wisconsin, and Oregon. Researchers assigned scores on the 1995 Healthy Eating Index, which reflect adherence to 1990 guidelines, based on participants' responses to food-frequency questionnaires. According to the study results, having a high 1995 Healthy Eating Index score was the strongest modifiable predictor of low prevalence of nuclear cataract. Vitamin supplement use was unrelated to cataract.