

WHO Panel Concludes Processed Meat Consumption Linked With Cancer

The International Agency for Research on Cancer (IARC) determined that processed meat—a category that includes hot dogs, ham, sausage, corned beef, and beef jerky—is carcinogenic to humans.¹ The same panel, which is the cancer agency of the World Health Organization (WHO), reclassified red meat as probably carcinogenic to humans. The IARC noted that the association for processed meat and red meat was observed mainly for colorectal cancer, and that associations for red meat were also seen for pancreatic and prostate cancers.

The panel concluded that each 50-g portion of processed meat eaten daily increases the risk of colorectal cancer by 18%.

The IARC categorized processed meat into group 1

(“carcinogenic to humans”) “based on sufficient evidence in humans that consumption of processed meat” causes cancer. Although all substances in the group—which include tobacco, exposure to ultraviolet light rays, and alcohol—are held to cause cancer, the cancer risk associated with these agents may differ in magnitude. Red meat was categorized into group 2A, as “probably carcinogenic to humans.”

The IARC assessment relied on more than 800 studies that investigated associations of a variety of cancers with processed meat and red meat consumption; the most influential studies were large prospective cohort studies from the past 20 years.

1. IARC Monographs evaluate consumption of red meat and processed meat [press release]. Lyon, France: International Agency for Research on Cancer; October 26, 2015.

Study: Lowering Blood Pressure at Night May Help Prevent Type 2 Diabetes

Taking hypertension medication before going to bed may reduce the risk of developing type 2 diabetes in patients with hypertension but without type 2 diabetes, according to a study published in *Diabetologia*.¹

Researchers followed approximately 2000 patients who were randomly assigned to take their blood pressure medication upon awakening or immediately before bed. After 6 years, approximately 9% of patients developed diabetes. Those in the cohort taking medication before bed had significantly reduced risk of disease development compared with those who took their medication upon awakening.

The researchers attributed this difference in diabetes progression to reduced blood pressure during sleep. Patients with high blood pressure normally do not experience reduced blood pressure during sleep; those in the cohort taking medication before bed showed reduced blood pressure while asleep.

1. Hermida R, Ayala DE, Mojón A, Fernández JR. Bedtime ingestion of hypertension medications reduces the risk of new-onset type 2 diabetes: a randomized controlled trial [published online ahead of print September 23, 2015]. *Diabetologia*.

No Adverse Outcomes Found in Surgeons' Performance After Night Work

The risk of adverse outcomes of elective daytime procedures were similar whether or not a physician provided medical services the previous night, according to a study in *The New England Journal of Medicine*.¹

Researchers reviewed data for nearly 40 000 patients and 1450 physicians at academic and nonacademic centers in Ontario. Patients who underwent a daytime procedure performed by a physician who had provided patient care after midnight the previous night had no higher risk of death, readmission, or complication compared with patients whose physician had not performed work past midnight.

No differences were noted when physician age, type of procedure, or academic versus nonacademic setting were considered. Secondary analyses showed that length of stay and length of procedure were similar for those treated by doctors who worked after midnight versus those who did not.

1. Govindarajan A, Urbach DR, Kumar M, et al. Outcomes of daytime procedures performed by attending surgeons after night work. *N Engl J Med*. 2015;373(9):845-853.

Inflammation Linked With Schizophrenia

People at risk for developing schizophrenia demonstrate brain inflammation similar to patients already diagnosed with schizophrenia, according to a study published in the *American Journal of Psychiatry*.¹

Researchers studied movement of microglial cells in the brain using a second-generation radioligand and PET imaging. Patients, who were recruited from early intervention centers, were at ultrahigh risk for psychosis and were genotyped to account for specific polymorphisms.

Quoted in *Newsweek*, the study's first author said that antiinflammatory drugs could be used as a pharmacologic option to stave off progression of disease in at-risk patients, and that this research opens the possibility of using a new class of drugs to treat schizophrenia both prophylactically and after diagnosis.²

1. Bloomfield PS, Selvaraj S, Veronese M, et al. Microglial activity in people at ultra high risk of psychosis and in schizophrenia: A [11C]PBR28 PET brain imaging study [published online ahead of print October 16, 2015]. *Am J Psychiatry*.

2. Gaffney C. Schizophrenia linked to inflammation in the brain. *Newsweek*. October 16, 2015. newsweek.com/anti-inflammatory-drugs-could-help-schizophrenia-treatment-study-384278. Accessed November 9, 2015.

Late Bedtimes Associated With Increased BMI

Adolescents who reported later-than-average bedtimes were more likely to have increased body mass index (BMI) over time, according to a study in *Sleep*.¹

Researchers tracked the bedtimes and BMIs of approximately 3300 adolescents between 1994 and 2009. The results showed that participants who reported bedtimes later than average during the workweek had increases in BMI from adolescence to adulthood, and that the average increase in BMI was 2.1 kg/m² per 6 years for every hour past the average bedtime that the individual went to bed.

Researchers recognized fast food consumption as a significant partial mediator of the relationship between bedtimes and BMI longitudinally.

1. Asarnow LD, McGlinchey E, Harvey AG. Evidence for a possible link between bedtime and change in body mass index. *Sleep*. 2015;38(10):1523-1527.

Study: Dietary Supplements Responsible for 23 000 ER Visits Annually

More than 23 000 visits to US emergency departments each year can be attributed to adverse events related to dietary supplements, according to a study published in *The New England Journal of Medicine*.¹

Of the estimated 23 000 visits to ERs attributed to dietary supplements, approximately 2150 resulted in hospitalization. Nearly half of the visits were from unsupervised children or adults between 20 and 34 years old. One-quarter of the visits were related to weight-loss products, and 10% to energy-boosting products. Both products caused palpitations, chest pain, and tachycardia in roughly 70% of visits.

Among those over 65, choking or pill-induced dysphagia caused about one-third of all emergency department visits for supplement-related adverse events. ■

1. Geller AI, Shehab N, Weidle NJ, et al. Emergency department visits for adverse events related to dietary supplements [published online ahead of print October 15, 2015]. *N Engl J Med*.

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