

30 days in medicine

Antenatal exposure to indoor air pollution and tobacco smoke associated with wheezing in infants

A study of infants in Paarl, South Africa, suggests that antenatal exposure to indoor air pollution and tobacco smoke are the predominant risk factors for lower respiratory tract infection (LRTI) and wheezing illnesses in infants. Mother-infant pairs were enrolled over 3 years in a birth cohort study in two centres and followed up during the first year of life. Exposure to internal air pollution (particulate matter, nitrogen dioxide, sulphur dioxide, carbon monoxide and the volatile organic compounds benzene and toluene) was measured antenatally and postnatally. Exposure to tobacco smoke was assessed by reports from mothers and urine cotinine tests.

Between March 2012 and March 2015, 1 137 mothers with 1 143 live births were enrolled. Exposures associated with LRTI were maternal smoking or particulate matter. Toluene was a novel exposure associated with severe LRTI. Antenatally, wheezing was associated with maternal passive smoke exposure and postnatally, with any household member smoking.

Vanker A, Barnett W, Workman L, et al. Early-life exposure to indoor air pollution or tobacco smoke and lower respiratory tract illness and wheezing in African infants: A longitudinal birth cohort study. *Lancet Planet Health* 2017;1(8):e328-e336. [https://doi.org/10.1016/S2542-5196\(17\)30134-1](https://doi.org/10.1016/S2542-5196(17)30134-1)

Upper hypertension limit for healthy over-60s raised

New guidelines published by the American College of Physicians and the American Academy of Family Physicians recommend that the threshold for treating hypertension in otherwise healthy adults aged >60 years be raised. The current threshold for treatment is a systolic blood pressure reading of 140 mmHg. The new recommendation is that only those aged >60 years with a persistent reading of ≥ 150 mmHg should start treatment for hypertension.

The new guidelines are the result of a systematic review of randomised controlled trials and observational studies. Deaths from all causes, together with illnesses, harms and deaths linked to stroke and major cardiac events, were analysed to evaluate the evidence. The evidence did not allow recommendations about diastolic blood pressure targets.

Qaseem A, Wilt TJ, Rich R, Humphrey LJ, Frost J, et al. Pharmacologic treatment of hypertension in adults aged 60 years or older to higher versus lower blood pressure targets: A clinical practice guideline from the American College of Physicians and the American Academy of Family Physicians. *Ann Intern Med* 2017;166(6):430-437. <https://doi.org/10.7326/M16-1785>

Heavy smoking and drinking ages us

Recent Danish research shows that heavy smoking and drinking lead to physical signs of ageing that cause you to look older than you

are. The findings are based on information from more than 11 500 adults aged >20 years (average age 51), whose heart and visible ageing signs were tracked for an average of 11.5 years as part of the Copenhagen Heart Study, which began in 1976. Participants were asked about their lifestyle and general health, including how much they drank or smoked, and were checked for signs of ageing that had previously been linked to an increased risk of cardiovascular disease or death – earlobe creases, arcus cornea, xanthelasmata and male-pattern baldness.

Average alcohol consumption was 2.6 drinks per week for women and 11.4 for men, and just over half the women (57%) and two-thirds of the men (67%) were current smokers. Arcus cornea was the most common sign of ageing in both sexes, and more common among men aged >70 and women aged >80. Xanthelasmata was the least common sign. Analysis of drinking and smoking patterns showed a consistently increased risk of looking older than true age among people who smoked and drank heavily.

Schou AL, Mølbak ML, Schnor P, Grønbaek M, Tolstrup JS. Alcohol consumption, smoking and development of visible age-related signs: A prospective cohort study. *J Epidemiol Comm Health* 2017;71(12):1177-1184. <https://doi.org/10.1136/jech-2016-208568>

Coffee is good for you

Drinking three to four cups of coffee daily is associated with health benefits across a range of diseases and conditions, according to a review published in the *British Medical Journal*. The study identified 201 meta-analyses of observational research and 17 of interventional research finding that coffee consumption was more beneficial than harmful.

Consumption of three cups a day was associated with a 19% lower risk of mortality from cardiovascular disease, a 16% lower risk of mortality from coronary heart disease and a 30% lower risk of stroke mortality. There was no harm associated with increasing to four cups a day, but the beneficial effects were less pronounced. A meta-analysis of 40 cohort studies suggested that there is a lower incidence of cancer among people who consumed large amounts of coffee than among those who drank little. Coffee drinkers also have a 29% lower risk of non-alcoholic fatty liver disease, a 27% lower risk of liver fibrosis and a 39% lower risk of liver cirrhosis.

The outcomes are mixed for coffee in pregnancy, however, with high consumption associated with a higher risk of low birth weight.

Poole R, Kennedy OJ, Roderick P, Fallowfield JA, Hayes PC, Parkes J. Coffee consumption and health: Umbrella review of meta-analyses of multiple health outcomes. *BMJ* 2017;359:j5024. <https://doi.org/10.1136/bmj.j5024>

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