

30 days in medicine

Lower risk of rheumatoid arthritis with oral contraceptive pill

A large Swedish study has found that women who take the oral contraceptive pill are at reduced risk of developing rheumatoid arthritis. Taking the oral contraceptive pill for ≥ 7 years was linked to the lowest risk of the disease – a 19% reduction.

The study was led by the Karolinska Institute, Stockholm, Sweden, and enrolled 5 578 women with rheumatoid arthritis and 4 129 age-matched controls. Any link between breastfeeding among women who had given birth to at least one child was also studied. Researchers looked for anti-citrullinated protein antibodies (ACPAs), which are a blood marker for rheumatoid arthritis. Results showed that any use of the contraceptive pill was linked to a reduced risk of developing ACPA-positive rheumatoid arthritis. A lower risk of developing rheumatoid arthritis that was noticed in women who had breastfed was not significant.

Orellana C, Saevarsdottir S, Klareskog L, et al. Oral contraceptives, breastfeeding and the risk of developing rheumatoid arthritis: Results from the Swedish EIRA study. *Ann Rheum Dis* 2017 (epub 17 August 2017). <https://doi.org/10.1136/annrheumdis-2017-211620>

Still large numbers of children under 5 dying of tuberculosis

Nearly 200 000 children aged <5 years died from tuberculosis (TB) in 2015, most in sub-Saharan Africa, a study published in *Lancet Global Health* has shown. Researchers from the University of Sheffield, UK, using mathematical modelling to show death rates from TB in under-5s for the first time, found that 239 000 children aged ≤ 14 died of TB in 2015 and 80% of these were aged <5.

This high number of deaths implies that TB should rank as a major cause of death in children aged <5 years worldwide. In fact, the number of deaths is likely to be higher, because some deaths from pneumonia, meningitis or AIDS may be caused by TB. The data also showed that 17% of children who died of TB were HIV-positive. More than 90% of the deaths were in children who were not receiving TB treatment, meaning that more needs to be done to identify children at risk of disease, diagnose their condition and treat them correctly.

Dodd PJ, Yuen CM, Sismanidis C, Seddon JA, Jenkins HE. The global burden of tuberculosis mortality in children: A mathematical modelling study. *Lancet Glob Health* 2017;358:e898-e906. [https://doi.org/10.1016/S2214-109X\(17\)30289-9](https://doi.org/10.1016/S2214-109X(17)30289-9)

Alternative cancer treatment linked to greater risk of death

The sole use of alternative medicine therapies by patients with cancer results in more than twice the risk of death from the disease compared with death rates associated with conventional cancer treatment.

A study published in *JNCI: Journal of the National Cancer Institute* and carried out by Skyper B Johnson and colleagues from the Yale

School of Medicine identified 281 patients from the US National Cancer Database from 2004 to 2013 with breast, prostate, lung or colorectal cancer who chose alternative medicine therapy as their only anticancer treatment. Patients with metastatic disease were not included.

The survival rates of patients who chose alternative medicine were compared with those of 560 matched patients who underwent conventional cancer treatment, defined as chemotherapy, radiotherapy, surgery or hormone therapy. Alternative medicine was defined as treatment coded in the database as 'other or unproven: cancer treatments administered by nonmedical personnel'. The median follow-up was 66 months.

The risk varied by type of cancer, the worst outcomes being among those who chose alternative therapy to treat breast cancer, followed by colorectal and lung cancer. Prostate cancer appeared not to be affected, possibly because of the long natural history of the disease and the short median follow-up period.

Johnson SB, Park HS, Gross CP, Yu JB. Use of alternative medicine for cancer and its impact on survival. *J Natl Cancer Inst* 2017 (epub 10 August 2017). <https://doi.org/10.1093/jnci/djx145>

'Five a day' may be more than we need

The recent PURE (Prospective Urban Rural Epidemiology) study suggests that, while high fruit and vegetable consumption is associated with a lower risk of non-cardiovascular and total mortality, the maximum benefits appear at three to four servings a day.

The study followed 135 335 individuals without cardiovascular disease from 613 communities in 18 low-, middle- and high-income countries in North America and Europe, South America, the Middle East, south Asia, China and southeast Asia and Africa between 2003 and 2013. Country-specific food questionnaires were collected, along with information on smoking and other lifestyle factors.

Overall, 3.9 servings of fruit, vegetables and legumes were eaten daily, and there was no decrease in cardiovascular or other disease with higher daily consumption. Fruit consumption was specifically associated with a lower risk of all-cause mortality, legumes with a lower risk of cardiovascular mortality, and raw vegetables with a lower risk of total mortality. The number of servings associated with maximum benefits are equivalent to 375 - 500 g/day.

Miller V, Mentz A, Dehghan M, et al. Fruit, vegetable, and legume intake, and cardiovascular disease and deaths in 18 countries (PURE): A prospective cohort study. *Lancet* 2017 (epub 29 August 2017). [https://doi.org/10.1016/S0140-6736\(17\)32253-5](https://doi.org/10.1016/S0140-6736(17)32253-5)

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