



Therapeutics Today

*Nollaig Shona dár léitheoirí go léir!
Happy Christmas to all our readers!*



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Might coffee protect women from depression? Caffeine is the world's most frequently ingested psychoactive substance, with approximately 80% consumed in the form of coffee. The results of a large cohort study, which assessed whether the consumption of caffeine was associated with depression risk in women, were published recently (*Arch Intern Med* 2011; 171(17):1571-1578). The study included a total of 50,739 US women, who were considered free of depression at baseline and who were prospectively followed up for 10 years (up to 2006). Consumption of caffeine was measured from validated questionnaires, computed as a cumulative mean consumption.

Clinical depression was defined as self-reported physician-diagnosed depression and antidepressant use. The results found that there were 2,607 incident cases of depression identified in the 10 year period; an inverse age-adjusted, dose response relationship was observed between caffeinated coffee and depression risk. The inverse gradient became slightly stronger after adjusting for all co-variables including total energy intake, current menopausal status, smoking status, BMI and marital status. **Compared with women consuming ≤ 1 cup of coffee/week, the multivariate relative risk of depression was 0.85 (95% CI, 0.75-0.95) for those consuming 2-3 cups/day and 0.80 (0.64-0.99; P for trend <0.001) for those consuming ≥ 4 cups/day.** Decaffeinated coffee was not associated with depression risk and no significant association was found between caffeine from non-coffee sources and depression risk. The authors of the study concluded that the results support a possible protective effect of coffee on risk of depression in women; however further investigations are required to confirm the finding. An accompanying editorial (*Arch Intern Med* 2011; 171(17):1578) suggests that the study makes an important contribution as it is the first large-scale study of coffee consumption to evaluate a mental health outcome in women. However the author notes that it is premature to recommend coffee consumption as a preventive measure against depression, until more robust/experimental studies are undertaken.



Chocolate may be good for your heart AND your head! It is estimated that a fifth of the world's adult population currently have "metabolic syndrome", a cluster of factors associated with an increased risk of type 2 diabetes and cardiovascular (CV) disease. These cardiometabolic disorders (CMD) exert a great burden on patients, healthcare services and society in general but are largely preventable. Diet is one of the key lifestyle factors associated with the development, prevention, and control of these disorders. Cocoa products, containing flavanol are reported to have potential to help prevent CMD. A recent systematic review evaluated the association between

chocolate intake and the risk of developing CMD (*BMJ* 2011; 343:d4488 doi: 10.1136/bmj.d4488). The review included 7 observational studies (n=6 cohort, n=1 cross-sectional) involving $>114,000$ participants (aged 25-93 years) that had evaluated chocolate consumption and CV outcomes for periods of up to 16 years. The studies included subjects with and without existing CV disease. The review evaluated the differences between low and high chocolate consumption on outcomes such as diabetes, incidence of CV disease and CV mortality, stroke (including fatal stroke) and coronary heart disease; all measures were adjusted for age, sex, BMI, smoking, physical activity, caffeine consumption and education. **Pooled results showed that high chocolate consumption was associated with about a third decrease in the risk of CMD: 37% reduction in any CV disease and 29% reduction in stroke.** No significant beneficial association was observed in relation to heart failure. The authors note that the review is limited by the fact that these are observational studies, depending on the subjects' correct recording of their chocolate consumption which could introduce bias to the results. In addition, the studies were undertaken in USA and Europe only, lessening the generalisability of the findings. Neither was it possible to identify the exact type of chocolate consumed. However, the results are consistent with other studies evaluating the potential beneficial effects of cocoa products. Although these findings need to be corroborated by experimental studies, the authors suggest that chocolate could provide a natural, convenient and generally welcome preventive measure against the growing epidemic of CMD in developing countries.



Hear Ye, Hear Ye, Antibiotics are wasted on colds and flu!

On 18th November 2011, European Antibiotic Awareness Day, the HSE launched its public information campaign on antibiotics in the Royal College of Physicians of Ireland (RCPI). The campaign message is ***antibiotics are wasted on colds and flu***. Both antibiotic use and resistance are relatively high in Ireland, compared with other European countries. Antibiotics are a precious resource and have transformed medical practice in the last 60 years. Very few new types of antibiotic are being developed, which means that we must make sure that the ones we have remain effective. One of

the factors that influences prescribing is the patient's expectation that they will be given an antibiotic when they visit their doctor if they are feeling unwell. **A Europe-wide survey, which included Ireland, showed that members of the public often mistakenly believe that antibiotics can hasten recovery from coughs and colds and prevent more serious illness.** Such misconceptions were lower in countries that have succeeded in maintaining low levels of inappropriate antibiotic use. Other surveys have shown that nearly half of the adults that go to their doctor expect an antibiotic once they get there. The HSE's public information campaign will focus on the winter months as antibiotic prescribing is seasonal (higher in the winter months) and much of this is for coughs, colds and flu.

What does the Public Information Campaign Involve?

The campaign aims to get the message across to patients and parents that antibiotics are not required for viral respiratory tract infections, thus reducing patient/parental expectation for an antibiotic prescription. A variety of materials and resources have been developed including:

- **New antibiotic websites:** A dedicated antibiotic section on both the HSE and Health Protection Surveillance Centre (HPSC) websites. [Check them out: www.hse.ie/go/antibiotics; <http://www.hpsc.ie/hpsc/A-Z/MicrobiologyAntimicrobialResistance/Antibiotics/>]
- **A radio advert** to highlight the importance of proper antibiotic use to the public
- **Updated Patient Information Leaflet, Posters and PowerPoint Presentation** emphasising the importance of appropriate antibiotic use, for use in GP surgeries, health centres, community pharmacies and other locations.
- **Antibiotic Prescribing Guidelines:** updated "Guidelines for Antimicrobial Prescribing in Primary Care in Ireland", developed by a GP-led working group of the Strategy for the control of Antimicrobial Resistance in Ireland (SARI), which will be distributed over the coming weeks. ***These guidelines also include prescribing guidelines for urinary tract infection in elderly residents in long term care***
- **A 'Cold and Flu Prescription Pad'** - or rather a 'no antibiotic' prescription pad. This pad may be useful for GPs for their patients with viral or other illness that don't require antibiotic therapy.

A range of support materials, including patient / parent information leaflets and A3 posters, the cold and flu prescription pad and a hard copy of the prescribing guidelines, is currently being distributed to GPs.

Further information on the campaign is available on the websites listed above. Information on antibiotic consumption in Ireland is available at: http://www.hpsc.ie/hpsc/A-Z/MicrobiologyAntimicrobialResistance/EuropeanSurveillanceofAntimicrobialConsumptionESAC/SurveillanceReports/File_13010_en.pdf

[**Editor's note:** Feedback from GPs and other healthcare professionals is welcomed on any aspect of the campaign in order to inform future campaigns: Contact Dr Fidelma Fitzpatrick at: fidelma.fitzpatrick@hse.ie. If you would like to comment on the prescribing guidelines, contact: antibiotics@hse.ie.]