



**Coronal computed tomography of the sinuses**  
**Try the anatomy quiz in ENDGAMES, p 839**

Time lapse microscopy has illuminated the process of human embryonic development. Researchers filmed embryos created by in vitro fertilisation for several days and sought visual cues that might predict whether a two day old embryo would develop into a day six blastocyst (*Nature Biotechnology* 2010, published online 3 October, doi:10.1038/nbt.1686). They identified three criteria: a first cytokinesis lasting up to 33 minutes, an interval of 7.8-14.3 hours between the first and second mitoses, and an interval of up to 5.8 hours between the second and third mitoses. Use of these observations could lead to an improved pregnancy rate with in vitro fertilisation.

An austerity measure introduced by orthopaedic surgeons was successful at saving money for the NHS and was also a hit with patients (*Annals of the Royal College of Surgeons of England* 2010;92:615-18, doi:10.1308/003588410X12699663904358). Instead of admitting patients with ankle fractures to a ward while waiting for ankle swelling to subside before surgery, surgeons started a home therapy programme. For patients who met the criteria for home therapy, the average length of hospital stay dropped from eight to 2.4 days, and all patients expressed satisfaction with the programme. Annual estimated savings were around £90 000.

Blueberry smoothie drinks were better than non-blueberry smoothies at improving insulin sensitivity in obese adults with insulin resistance (*Journal of Nutrition* 2010;140:1764-8, doi:10.3945/jn.110.125336). The trial involved drinking smoothies twice daily for six weeks, and both groups were instructed to maintain their body weight by reducing their usual intake by an amount equal to the energy content of the smoothies. By the end of the trial, insulin sensitivity was enhanced in the blueberry group, without significant changes in adiposity, energy intake, and inflammatory markers.

Another dietary intervention—this time daily consumption of three portions of wholegrain foods—significantly reduced risk of cardiovascular disease in middle aged people, mainly, it seems, by lowering blood pressure. The researchers estimate that the decrease in systolic blood pressure observed



A 48 year old woman with systemic lupus erythematosus had deteriorating vision over several months. Differential diagnoses included cataract from corticosteroid therapy, vasculitic retinopathy, and problems secondary to hydroxychloroquine treatment. Fundoscopy showed retinal pigment changes to both maculas in an early “bull’s eye” pattern characteristic of hydroxychloroquine toxicity. Hydroxychloroquine is used in the treatment of systemic lupus erythematosus and rheumatoid arthritis, and like chloroquine can affect the eyes. Corneal damage is reversible, but retinal damage may cause permanent visual impairment. The problem is rare when a maximum dose of 6.5 mg/kg is prescribed, but patients on hydroxychloroquine with visual changes should always be referred for ophthalmic review.

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in their trial among those who followed this dietary intervention could reduce the incidence of heart disease by more than 15% and stroke by 25% (*American Journal of Clinical Nutrition* 2010;92:733-40, doi:10.3945/ajcn.2010.29417).

Living at high altitude appears to be an independent risk factor for suicide, according to the *American Journal of Psychiatry* (2010, doi:10.1176/appi.ajp.2010.10020289). Previous work had suggested that gun ownership and low population density might be accountable for raised suicide risk in the mountains of the western United States, but a new study indicates that altitude alone may

be a factor. The observations may be related to the effects of metabolic stress associated with mild hypoxia in people with mood disorders.

Maternal deaths have dropped by a third since 1990, according to a United Nations analysis, with the greatest reductions seen in eastern Asia and North Africa. Sadly, this good news is not enough to enable millennium development goal 5—a reduction in maternal mortality ratio by 75% between 1990 and 2015—to be reached. These new observations, however, are better than expected, with increased availability of free obstetric care thought to be one of the contributing factors (*Bull World Health Organ* 2010;88:718, doi:10.2471/BLT.10.082446).

Enjoying the work you do is good for your health. A 20 year study of healthy employees reports that baseline “vigour” decreased the risk of all-cause mortality by 26% and the risk of diabetes by 17%. Vigour—defined as the sense of having physical strength, emotional energy, and cognitive liveliness—did not, however, have any effect on the risk of ischaemic heart disease (*Psychosomatic Medicine* 2010;72:727-33, doi:10.1097/PSY.0b013e3181eeb643).

An all-English musical extravaganza will be performed by the European Doctors Orchestra on 21 November at the Royal Academy of Music in London. If Elgar’s *Cockaigne Overture*, Vaughan Williams’ *A London Symphony*, and Walton’s *viola concerto* sound tempting, tickets are available at [www.ram.ac.uk/events](http://www.ram.ac.uk/events).

At a time of unprecedented changes in global health care, policy makers are being urged to keep the needs of patients paramount. Developed countries are attempting to downsize their healthcare systems to become more efficient while those in developing countries need to expand to meet the increasing burden of chronic disease. A global seminar entitled *The Greatest Untapped Resource in Healthcare? Informing and Involving Patients in Decisions about their Medical Care* is being held in Salzburg on 12-17 December 2010. For information, email [ihattinger@SalzburgGlobal.org](mailto:ihattinger@SalzburgGlobal.org).

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