MINERVA

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A 50 year old obese man with pain in both knees Try the picture quiz in ENDGAMES, p 1109

Were you involved with *Smallpox Zero*, the World Health Organization's campaign to eradicate smallpox from the world? If so, you're invited to send your stories, reminiscences and photographs to the archives of the Edward Jenner Museum (www.jennermuseum.com). The museum intends to publish a book of personal memories and anecdotes, the profits from which will go to the charity. Some of the material will also be incorporated into exhibitions and displays. Please contact info@edwardjenner.co.uk.

The cause of infantile colic is still debated. One hypothesis is that it's a pain syndrome, with the pain coming from sucking the bottle or the nipple, and excessive crying resulting in aerophagia and abdominal discomfort. Complex mechanics involve the tiny digastricus muscle moving the hyoid bone, which opens the mouth, which pushes the mandible back, which in turn helps to move the tongue. So the pain is initially muscular, but later arises from the origins and insertions of the muscle. As the muscle develops and gains strength, the pain fades away (*Medical Hypotheses* 2010;75:528-9, doi:10.1016/j. mehy.2010.07.014).

Requests for over the counter cold and flu medications could be more sinister than they seem. Pseudoephedrine and ephedrine are used to produce the highly addictive class A drug methylamphetamine ("crystal meth"). Australia and the United States have greater problems with crystal meth and have stricter controls on sales of pseudoephedrine and ephedrine. The UK currently has lower levels of use, not least because of the vigilance of pharmacists and restrictions in place—for example, it is illegal to sell a bottle of Day Nurse liquid together with Day Nurse capsules without a prescription (*Pharmaceutical Journal* 2010;285:513-4, www. pjonline.com).

Sheep droppings have been blamed for an outbreak of diarrhoeal illness in mountain bikers in rural Wales. The cycle event took place in 2008 at a time of heavy rain, and the poor participants skidded and fell off their bikes more than usual. Multivariate analysis of a retrospective cohort study identified the "inadvertent ingestion of mud" and eating "other" food during the event as significant risk factors for illness. The organism in question was *Campylobacter (Epidemiology and Infection* 2010;138:1704-11, doi:10.1017/S0950268810001561).





A 42 year old man with type 2 diabetes and peripheral neuropathy presented with an acute swollen left foot and superficial skin burn. He recalled immersing his foot in hot water to help relieve discomfort. A radiograph showed destruction of the tarsal bones in keeping with acute Charcot arthropathy. He recovered after partial immobilisation and bisphosphonates. Precipitating injuries for acute Charcot's foot are not always mechanical. Clinicians should ask about thermal injuries and remind patients with peripheral neuropathy to avoid temperature extremes.

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Patient consent obtained.

Cite this as: BMJ 2010;341:c6455

Vertebral compression fractures in people with cancer can be successfully palliated using vertebral augmentation—vertebroplasty and kyphoplasty. These minimally invasive procedures can provide immediate pain relief and bone stabilisation. One interesting finding from a retrospective analysis of vertebral augmentation is that for people with metastatic compression fractures, increasing age was a predictor of response to treatment. Those with lung cancer and myeloma did less well (Journal of Neurointerventional Surgery 2010;2:221-8, doi:10.1136/jnis.2010.002675).

It's not the quantity, but the quality, of social networks that are protective for dementia. A 15 year French study assessed just over 2000 people aged 65 and older, who were free of dementia at the baseline and at the next two follow-ups, to minimise the problem of reverse causality. The researchers collected data about marital status, number of social ties, the nature of social networks, satisfaction, perception of being understood, and reciprocity in relationships. The only variables associated with subsequent dementia or Alzheimer's disease were those that reflected the quality of relationships (*Psychosomatic Medicine* 2010;72:905-11 doi:10.1097/PSY.0b013e3181f5e121).

A randomised controlled trial found that direct topical application of tranexamic acid into the knee joint at the end of cemented total knee arthroplasty reduced postoperative bleeding by 20-25% (300-400 ml), resulting in higher postoperative haemoglobin levels, compared with placebo. No differences in the rates of deep vein thrombosis and pulmonary embolism were seen between the groups, and no clinically important increase in complications was identified in the treatment group (Journal of Bone and Joint Surgery American edition 2010;92:2503-13, doi:10.2106/JBJS.I.01518).

People who engage in regular physical activity of any intensity in their leisure time are less likely to become depressed, but physical activity during work time seems to offer no such protection, according to a Norwegian study. The researchers suggest that higher levels of social support and social engagement could explain the link between leisure activity and depression, although Minerva wonders how this suggestion applies to swimming and other more solitary physical activities (*British Journal of Psychiatry* 2010;197:357-64 doi:10.1192/bjp. bp.109.075176).

Cite this as: BMJ 2010;341:c6458