

Minerva

When a 67 year old woman on a flight bound for Florida developed crushing central chest pain radiating down her left arm, not one but 15 cardiologists leapt to her assistance. They were all en route to a cardiology conference in Orlando. Apart from the fact that she had more cardiologists in attendance than the average patient anywhere in the world, Minerva is curious to know whether they all wanted to follow the same protocol (*BBC News Online* 2 January 2004).

The UK Driver and Vehicle Licensing Agency (DVLA) updates its guidelines on medical standards of fitness to drive every six months. For easy access to the most up to date "At a glance guide" version, go to www.dvla.gov.uk

A brain imaging study has identified which brain circuits are most active when people consciously try to forget particular memories, revealing a biological basis for Sigmund Freud's concept of repression. Volunteers were taught certain word pairs and then asked to remember or avoid thinking about them. Suppression did indeed impair memory, and the part of the brain most actively involved seemed to be an interaction between the prefrontal cortex and the hippocampus (*Science* 2004;303:232-5).

Cambridge University is about to update its "Informed Patient" report (www.jjims.cam.ac.uk/research/health/tip/pdf/crstudy.pdf) to include any new issues and activities, or examples of good practice that have arisen over the past 12 months. If you wish to contribute to the report, contact Peter Singleton (peter.singleton@chi-group.com). The new report is due out in April.

Finding drugs that can be delivered through the skin is a frustrating business, because there are few approved chemicals available to drug makers that can help therapeutics permeate skin. A large scale rapid screening process is described in *Nature Biotechnology* (advance online publication, doi:10.1038/nb928). The main aim was to identify chemicals that enhance protein transport across the skin but don't cause irritation. A combination of two chemicals is better than one; each acts on a different layer of skin, allowing smaller doses to be used.

According to a new booklet produced by the Royal London Hospital, Sir Frederick Treves described John Merrick (aka the elephant man) as "the most disgusting specimen of humanity" he had ever seen, with the most striking feature about him being his enormous and misshapen head. He hoped

Merrick's intellect "was the blank" he imagined it to be, but instead "found him to be remarkably intelligent."

A retrospective study of 337 patients with seizure disorders found body asymmetry in 31% of those with epilepsy; 64% of these were specifically associated with localisation related epilepsy (partial seizures). Lateralisation of the body asymmetry corresponded to the part of the body involved in the partial seizure in 76% of cases. In contrast, only 24% of patients with generalised seizure disorders showed similar findings (*Seizure* 2003; 12:606-12).

Having an itch is frustrating, and trying to measure its intensity objectively is apparently more so. A device called a perceptual matching unit electrically stimulates the skin of the fingers, and the stimulus can be stopped when the amplitude of the sensation corresponds to a person's experience of itch caused by histamine iontophoresis in the forearm. The test is limited because it induces distinct sensations other than itch, but the reported test-retest reliability is excellent (*Journal of Investigative Dermatology* 2003;121:1301-5).

Following her astonishment over the popularity of antidepressants in the United States (*BMJ* 2003;327:1414), Minerva has been taken to task by two readers. The first challenged her to name any treatment, for any condition, that has a response rate better than the 60-70% accorded to antidepressants (he thinks she'll find there are fewer than she assumes). The second reminds her that the WHO ranks depression as the single most burdensome disease in the world in terms of total disability adjusted life years among people in the middle years of life.

Bone density and nutritional intake data from almost 900 women aged 45-55 show that after 5-7 years, higher intakes of calcium were correlated with a reduced loss of density at the femoral neck. Modest alcohol intake was associated with less loss in the lumbar spine. For premenopausal women, nutrients found in fruit and vegetables may protect against bone loss. Higher bone density losses occurred in women with higher intakes of polyunsaturated and mono-unsaturated fatty acids (*American Journal of Clinical Nutrition* 2004;79:155-65).

For anyone who needs to be alert after very short periods of sleep, a study in *Aviation, Space and Environmental Medicine* (2003;74: 1263-70) makes interesting reading. Researchers tested psychomotor perform-



A 37 year old man presented to the emergency department with a blast injury, sustained as a result of inflating a radial tyre which exploded. He reported pain on swallowing and a sore throat. Examination showed only surgical emphysema over the left temporal fossa and three linear lacerations to the soft palate. He was admitted for observation and given prophylactic antibiotics. He made a full recovery. This illustrates the potentially serious nature of what seems to be an innocuous injury of the soft palate: surgical emphysema suggests a mucosal breach of the oropharynx or nasopharynx and possible bacterial contamination of the surrounding soft tissues.

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ance seven hours after 23 subjects took a range of short and longer acting hypnotics, melatonin, and placebo. Despite a prolonged period of perceived sleepiness, melatonin did not impair performance at all, whereas zaleplon (a new hypnotic with a very short half life), temazepam, and zopiclone did.

Picture this: the analysis of flatus as the basis of rapid near patient diagnosis of infectious diarrhoea. Stool samples (and their gaseous compounds) were collected from 35 patients with infectious diarrhoea and six healthy people. Characteristic patterns of volatile gases were found to correlate with the main causes of infectious diarrhoea: furans without indoles indicated *Clostridium difficile*, ethyl dodecanoate indicated rotavirus, and the absence of hydrocarbons and terpenes indicated *Campylobacter* (*Gut* 2004;53:58-61).