



Road trauma in France is rising as cycling becomes more popular. Cycling injuries are coded as “learning” (children), “sports” (teenagers and adults injured outside towns), and “transport” (teenagers and adults in towns). Cyclists injured in towns are generally less severely injured than those injured outside towns for both cycle-only crashes and those involving motor vehicles, probably because of the lower speed limits in towns. But more internal injuries are sustained when motor vehicles are involved in either location. Legs fare worse than heads (*BMC Public Health* 2011;11:653, doi:10.1186/1471-2458-11-653).

In an exploration of the arrangement of smell receptors in the human nose, scientists recorded neural activity directly from the lining of noses in response to a range of odours and asking the participants to judge the pleasantness—or otherwise—of each smell. Receptors in locations where pleasant smells were best detected were likely to respond strongly to other pleasant smells. Locations that responded best to disgusting smells were likely to respond strongly to other horrible smells. Smell works in a similar way to vision and audition, where organisation reflects key axes of perception (*Nature Neuroscience* 2011, doi:10.1038/nn.2926).

A Dutch trial of selective decontamination of the digestive tract versus placebo, in addition to standard intravenous antibiotics, concludes that perioperative decontamination with an intensive combination of antibiotics is better for patients undergoing elective gastrointestinal surgery. The intensive group had significantly fewer postoperative infectious complications and less anastomotic leakage than placebo. However, hospital stay and mortality rates did not differ between the groups (*British Journal of Surgery* 2011;98:1365-72, doi:10.1002/bjs.7631).

Can n-3 polyunsaturated fatty acids (n-3 PUFAs) exert their known antiarrhythmic effects to prevent atrial fibrillation? In a randomised, double blind study, 199 patients on amiodarone and a renin-angiotensin-aldosterone inhibitor were assigned either placebo or n-3 PUFAs after undergoing cardioversion for persistent atrial fibrillation. The addition of n-3 PUFAs significantly improved the probability of sinus rhythm being maintained one year later (*Circulation* 2011;124:1100-6, doi:10.1161/circulationaha.111.022194).

A 34 year old man, who had a history of chronic renal disease relating to urolithiasis and a left nephrectomy, received a kidney transplant after four years on haemodialysis. He displayed delayed graft function. Osteodensitometry analysis (GE healthcare Lunar) showed a substantial increase in bone mineral density at the lumbar spine (1.958 g/cm², T score 6.7) and hip bone (1.845 g/cm², T score 6.2), and nephrocalcinosis of the native right kidney. The presence of these factors suggested oxalate crystal deposition disease. DNA genotyping established type I hyperoxaluria. Patient consent obtained.



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Computer assisted surgery is no better than conventional surgery at maintaining joint line position for total knee replacement (*Journal of Bone and Joint Surgery (Br)* 2011;93-B:1223-31, doi:10.1302/0301-620X.93B9.26950). A randomised controlled trial of 115 patients undergoing computer assisted and conventional knee replacement surgery showed no significant differences between the two techniques in joint line maintenance, functional outcomes, and quality of life outcomes two years after surgery. Individuals whose joint lines were depressed postoperatively in both groups improved the least in terms of functional scores.

Blood describes the first study to investigate the efficacy of intravenous iron to treat fatigue in non-anaemic patients with low iron levels (2011;118:3222-7, doi:10.1182/blood-2011-040346304). In 90 premenopausal women who scored their fatigue on a 0-10 scale, fatigue

decreased by 1.1 compared with 0.7 in the placebo group (P=0.07). In those with less than 15 ng/mL of iron at baseline, fatigue decreased by 1.8 compared with 0.4 in the placebo group (P=0.005). In the active group, 82% reported feeling less tired compared with 47% in the placebo group, and 21% who received iron had trivial drug associated adverse events, compared with 7% of those who received placebo.

Reduced vitamin D levels could contribute to depression in postmenopausal women, according to an observational study by the Women’s Health Initiative. For women without evidence of depression at baseline, a daily intake of more than 400 IU vitamin D from food sources, compared with an intake of less than 100 IU, was associated with 20% lower risk of depressive symptoms at year three. The results for supplemental vitamin D were not as consistent (*American Journal of Clinical Nutrition* 2011;94:1104-12, doi:10.3945/ajcn.111.017384).

Some cardiac surgeons think that intramyocardial transplantation of bone marrow stem cells at the time of coronary artery bypass grafting might improve left ventricular function in those with chronic heart disease—and so it appears. A systematic review of six available and suitable trials found that those who receive bone marrow stem cells as well as undergoing surgery enjoy functional improvement with a significantly better left ventricular ejection fraction from baseline to follow-up, and a better left ventricular end diastolic volume than controls. The treatment is also safe (*Journal of Thoracic and Cardiovascular Surgery* 2011;142:911-20, doi:10.1016/j.jtcvs.2010.12.013).

Anaesthetists have hypothesised that colloidal solution given simultaneously with a vasopressor when spinal anaesthesia is initiated for caesarean delivery would produce a larger sustained increase in cardiac output than a crystalloid colloid. Sixty healthy women who were scheduled for elective caesarean deliveries at term participated in a randomised, double blind study that recorded heart rate, systolic blood pressure, and cardiac output variables. But surgical time, fetal outcome data, and, critically, cardiac output and vasopressor requirements, were similar in both groups (*Anesthesia and Analgesia* 2011;113:803-10, doi:10.1213/ANE.0b013e31822c0f08).

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