liver) and fat. Oxidation of these in the tricarboxylic acid (Krebbs') cycle leads to the production of 'metabolic' water. This is lost as sweat, but does not require replacing. Additionally, glycogen is stored in association with water, which is released when the glycogen is broken down. Again, this water is lost as sweat but does not require replacement. The total of this non-replacement water has been calculated as being up to 2 kg over a standard marathon,10 and higher in longer events. This means that a runner who finishes a marathon at the same weight as at the start is overhydrated by as much as 2 litres.

The final criticism of this advice is that it assumes no danger from large volume fluid intake. This, too, is erroneous.

WATER INTOXICATION AND HYPONATRAEMIA OF EXERCISE

Hyponatraemia of exercise has generally been considered a rare event in endurance sports. However, the morbidity and mortality from this condition has been well reported in the medical literature.³ While the mild form may be asymptomatic, severe hyponatraemia causes confusion, seizures and death. In contrast, there does not appear to be a single report of the death of an athlete in which dehydration was the clear cause.

A recent prospective study of runners in the Boston Marathon¹¹ revealed a 13% prevalence of hyponatraemia (serum sodium <135 mmol/L) and a 0.6% incidence of critical hyponatraemia (serum sodium <120 mmol/L) in race finishers. Equating this to the London Marathon: of a finishing field of 33 000, 4290 would have mild hyponatraemia and would suffer from critical hyponatraemia. Obviously, this figure does not include those unable to complete the event. The Boston study also shed interesting light on the risk factors for this condition: slow (over 4 hours) race time, weight gain and body mass extremes, all of which confirmed the

Flora medica Richard Lehman

From the journals, May-June 2006

New Eng J Med Vol 354

1985 For some children with severe chronic asthma, corticosteroid inhalers should probably be used regularly; but for children with just a tendency to wheeze from time to time, this study showed no benefit from regular inhaled fluticasone.

1998 Giving inhaled budesonide early in episodes of wheezing in the first 3 years of life also has no effect.

2112 Do premature babies get a buzz when they are given caffeine? All we know is that it helps them breathe better.

2131 An 8-year study from England shows that children who have their hearing impairment picked up early by screening benefit in language skills, but not in speech. 2250 If you need to bone up on your knowledge of the various ways that bone can modify its structure, here's a well-illustrated and interesting review.

2340 'Even moderate weight gain among persons of normal weight may cause or exacerbate symptoms of reflux' in the Nurses' Health Study: GORD's punishment for indulgence.

Lancet Vol 367

1618 A review of the difficult problem of pain that persists after the healing of surgical wounds: I wish that it offered solutions.

1665 Dual platelet inhibition with aspirin and dipyridamole is better than aspirin alone following TIA and minor stroke, though not by much. Have neurologists discovered clopidogrel yet?

1689 The decline of academic medicine in Europe is discussed with more bafflement than insight here. GPs of the world unite! You have nothing to lose but the chains of intellectual snobbery! You can do the research that matters.

1747 The Lancet treats us to another huge overview of the global burden of disease. Things are not all for the best in the best of all possible worlds, but they are getting better — except where the infrastructure of primary care has been destroyed.

1830 Should we criminalise all users of 'narcotics'? Or should we give them the means to obtain and inject them safely? Well, of course, if you want to open the floodgates ... But Zurich demonstrates that the latter course actually decreases heroin use in the community.

JAMA Vol 295

2275 Monoclonal antibodies to tumour necrosis factor α , such as infliximab and adalimumab, are effective in suppressing rheumatoid arthritis, but a meta-analysis of the trials shows that they double the risk of

serious infection and malignancies over a fairly short period.

2357 Colonoscopy is the best way to screen for bowel cancer, and if you have a normal one, your chance of bowel cancer falls for at least 10 years. But if you are over 80, any mortality benefit is reduced by 85%.

Arch Intern Med Vol 166

965 Oddly, giving up smoking and alcohol has no effect on oesophageal reflux: weight loss (see *NEJM* above) and raising the bedhead are the only non-pharmacological measures that work.

1003 Patients with heart failure have higher rates of Alzheimer's disease and other dementia.

1027 Unopposed oestrogen of various kinds slightly increased the risk of breast cancer in the observational Nurses' Health Study, unlike the Women's Health Study which found no increase in those randomised to equine oestrogens.

1092 The best way to tell if your patient is anxious is to ask: the GAD-7 scale is a quick way of doing it, as good as longer ways.

1115 To avoid dementia, keep physically active when you retire.

Ann Intern Med Vol 145

715 The best way to tell if a woman has stress or urge incontinence is to ask. It's just as good as fancy scores and investigations.

785 Time for a coffee, or time for a nap? The two are just as good for long-distance night drivers. For hospital interns, napping helps clinical decision making (page 792). There's an editorial on page 856 musing on the perils of 'circadian dyschronosis'.

904 A meta-analysis of studies of long-acting inhaled β -agonists in asthma shows that they increase mortality, an effect not totally offset by concomitant inhaled steroids.

Syndrome of the Month: Twiddler's syndrome

'Twiddler's syndrome in a patient with an implantable cardioverter-defibrillator' (*Heart* 2006; **92:** 826). No, the eponym does not refer to some distinguished electrocardiologist unfortunately named Twiddler. It refers to a patient who twiddled with the leads and damaged them, with shocking consequences.

Plant of the Month: Stewartia pseudocamellia

A beautiful small tree for lime-free soil, with delicate flowers for weeks when most other trees have given up.