WHAT'S UP, DOC?

Sleep apnea and stroke

Researchers using an observational study to investigate the risk of stroke and death in patients with obstructive sleep apnea found that patients who experienced 5 or more apneic-hypopneic events per hour were twice as likely to have a stroke or die in the next 3 years (hazard ratio [HR] 2.24, 95% CI 1.30–3.86). After taking into account patient age, sex, ethnicity, smoking status, alcohol consumption, body mass index, lipid profile and presence of diabetes, hypertension and atrial fibrillation, the risk was still almost 2-fold greater (HR 1.92, 95% CI 1.12–3.48). Worsening sleep apnea was associated with increased risk: patients who experienced more than 36 events per hour had 3 times the risk of patients who had fewer than 3 events per hour (HR 3.30, 95% CI 1.74–6.26). *N Engl J Med* 2005;353:2034–41

Dolphins and depression

Thirty patients with mild to moderate depression who swam and played with dolphins for an hour each day for 2 weeks were found to have reduced depressive symptoms. Patients in the control group swam and snorkeled at the same Honduras location. Although the researchers acknowledge that most patients with depression will not be able to access large aquatic mammals, they hope that this first randomized trial showing the antidepressive effects of interaction with animals will spur other, similar trials. *BMJ* 2005;331:1231–4

Which diet is best for hypertension?

Adults with early and prehypertension were randomly assigned to healthful diets rich in carbohydrates, protein or unsaturated fat. After 6 weeks, all of the participants had lower blood pressure, low-density lipoprotein (LDL-C) levels and risk of coronary artery disease

Photos.com

Mood-enhancing mammal.

(CAD). Blood pressure reduction was greater with the protein and unsaturated-fat diets than with the carbohydrate diet. The protein diet also lowered LDL-C, high-density lipoprotein cholesterol (HDL-C) and triglyceride (TG) levels more than the carbohydrate diet. The unsaturated-fat diet lowered TG levels but increased HDL-C levels and had no effect on LDL-C levels. The estimated 10-year CAD risk was similar for the protein and unsaturated-fat diets; both were lower than that for the carbohydrate diet. Researchers concluded that although all 3 diets are healthy, partial substitution of carbohydrate with either protein or unsaturated fat can further lower blood pressure, improve lipid levels and reduce cardiovascular risk. *JAMA* 2005;294:2455–64

Comparing statin strategies

Almost 9000 patients with a previous myocardial infarct were randomly assigned to high-dose atorvastatin (80 mg/d) or usual-dose simvastatin (20 mg/d) to see if more aggressive therapy lowered the risk of cardiovascular disease. After a median 4.8-year fol-

low-up there was no difference between the 2 groups in the number of major coronary events (coronary death, nonfatal myocardial infarct, cardiac arrest with resuscitation) or deaths from any cause (HR 0.89, 95% CI 0.78–1.01). There were slightly fewer nonfatal myocardial infarcts (absolute risk reduction [ARR] 1.2%) and coronary revascularizations (ARR 3.7%) in the high-dose group; the number needed to treat to gain these benefits would be 83 and 27 respectively. Raised liver enzyme levels were more common in the high-dose group (1.38% v. 0.15%, $p < 0.001$), and patients stopped treatment more often because of myalgia, diarrhoea, abdominal pain and nausea (ARR 5.4%); treating 20 patients with high-dose atorvastatin would result in one stopping treatment because of side effects. High-dose atorvastatin did not reduce major coronary events or cardiovascular or all-cause deaths in this study. Benefits gained for nonfatal myocardial infarct and revascularization need to be weighed against the likelihood of non-compliance due to side effects. *JAMA* 2005;294:2437–45 — Compiled by Sally Murray, *CMAJ*

DOI:10.1503/cmaj.051673