# **IN BRIEF**

## RISK FACTORS

## Traffic pollution diminishes benefits of walking

The beneficial cardiopulmonary effects of walking can be impaired by traffic pollution in patients with ischaemic heart disease (IHD) or chronic obstructive pulmonary disease (COPD), and in healthy individuals. In a randomized, crossover study published in The Lancet, 135 participants (39 with IHD, 40 with COPD, and 40 healthy controls) were assigned a 2 h walk along Oxford Street (a commercial street in London, UK) or in Hyde Park (an urban park). Oxford Street had higher concentrations of black carbon, NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and ultrafine particles than Hyde Park. All participants showed a beneficial increase in lung function and a decrease in pulse wave velocity and augmentation index (measures of arterial stiffness) up to 26 h after walking in Hyde Park; these effects were attenuated after walking on Oxford Street. "Policies should aim to control ambient levels of air pollution along busy streets in view of these negative health effects," conclude the investigators.

ORIGINAL ARTICLE Sinharay, R. et al. Respiratory and cardiovascular responses to walking down a traffic-polluted road compared with walking in a traffic-free area in participants aged 60 years and older with chronic lung or heart disease and age-matched healthy controls: a randomised, crossover study. Lancet http://dx.doi.org/10.1016/S0140-6736(17)32643-0 (2017)

## **HYPERTENSION**

## Low sodium and DASH diet to lower blood pressure

Reducing sodium intake, uptake of the Dietary Approaches to Stop Hypertension (DASH) diet (a diet rich in fruits, vegetables. and low-fat dairy products, and reduced in saturated fat and cholesterol), and a combination of the two are effective strategies to lower blood pressure in individuals with prehypertension or stage 1 hypertension who are not using antihypertensive drugs. The DASH-sodium trial involved 412 participants (57% women, 57% black, mean age 48 years, mean systolic/diastolic blood pressure 135/86 mmHg). With a control diet, reducing sodium intake was associated with significant reductions in blood pressure. Similarly, with a high-sodium diet, eating a DASH diet was associated with significant reductions in blood pressure. The combination of a low-sodium–DASH diet produced even greater reductions in blood pressure than either intervention alone, with the largest reductions occurring in patients with the highest systolic blood pressure at baseline.

**ORIGINAL ARTICLE** Juraschek, S. P. *et al*. Effects of sodium reduction and the DASH diet in relation to baseline blood pressure. *J. Am. Coll. Cardiol.* **70**, 2841–2848 (2017)

## **THROMBOSIS**

#### Pharmacomechanical thrombolysis in DVT

Patients with proximal deep-vein thrombosis (DVT) often develop post-thrombotic syndrome (PTS; chronic leg pain, swelling, redness, and ulcers) despite anticoagulant therapy. Investigators in the ATTRACT trial hypothesized that rapid removal of the thrombus by pharmacomechanical catheter-directed thrombolysis would reduce the risk of PTS. A total of 692 patients with acute proximal DVT were randomly assigned to anticoagulation plus pharmacomechanical thrombolysis or anticoagulation only. No significant difference was observed in the rate of PTS between 6 and 24 months (47% versus 48%; risk ratio 0.96, 95% CI 0.82–1.11, P = 0.56) or in recurrent venous thromboembolism during the 24-month follow-up (12% versus 8%; P = 0.09), but pharmacomechanical thrombolysis was associated with an increased rate of major bleeding events within 10 days (1.7% versus 0.3%; P = 0.049).

 $\label{eq:continuous} \textbf{ORIGINAL ARTICLE} \ \ \text{Vedantham}, S.\ et\ al.\ \ \text{Pharmacomechanical catheter-directed} \ \ \text{thrombolysis for deep-vein thrombosis.}\ \ N.\ Engl.\ J.\ Med.\ \ \textbf{377}, 2240-2252 \ (2017)$