Cancer (EPIC). Second measurements were made after ~4 years, and incidence of fracture for 14,921 people who had not suffered a fracture in the interim was analyzed up to 2006. Mean follow-up time was 7.1 years; during this period 390 fractures, including 122 hip fractures, were reported. Participants with annual height loss >0.5 cm had a higher incidence of fracture than those with no height loss (age and sex adjusted hazard ratio for any fracture 1.76, 95% CI 1.16–2.67; for hip fracture 2.08, 95% CI 1.07–4.05). For each 1 cm of height loss per year, the hazard ratio was 1.86 (95% CI 1.28–2.72). This risk is comparable to being about 14 years older in chronological terms and having a history of fracture.

The authors concluded that height loss of 2 cm over a 4-year period from middle age upwards is a significant predictor of future fractures. Measuring height in millimetres is recommended to identify people with increased risk of fractures.

Original article Moayyeri A *et al.* (2007) Measured height loss predicts fractures in middle aged and older men and women: The EPIC-Norfolk prospective population study. *J Bone Miner Res* [doi:10.1359/jbmr.071106]

Radioiodine in thyroid cancer—effects on testicular function

Adjuvant radioactive iodine therapy is widely used to treat well-differentiated thyroid carcinoma (WDTC), but is known to result in radiation absorption by the testes, the long-term effects of which are unknown. To determine the effects of radioactive iodine on testis function and fertility in men with WDTC, Sawka *et al.* conducted a systematic review of controlled studies of radioiodine therapy in such patients.

Longitudinal studies of the effect of a single dose of ≤150 mCi (5.56 GBq) of radioiodine showed that serum levels of luteinizing hormone and follicle-stimulating hormone (FSH) peaked 2–6 months after radioiodine administration, and normalized in the majority of patients by 12–18 months. However, repeated or high cumulative radioiodine activities were associated with a greater risk of abnormalities. In one study, the majority of men who received >594 mCi (22 GBq) radioiodine had elevated FSH at 18 months. One 12-month study found a persistent reduction in sperm count in 7 of 53 patients; the cumulative dose of radioiodine correlated positively with FSH level, and inversely with sperm count. Another study with a mean follow-up >7 years found a positive correlation between radioiodine dose and FSH level. Radioiodine treatment was not found to affect rates of infertility, pregnancy loss or congenital malformation; however, sample sizes in these studies were small and the outcomes self-reported.

The authors recommend that sperm banking be offered to men if multiple doses of radioiodine are planned (particularly if single doses exceed 150 mCi), if the cumulative planned dose is >350 mCi (13 GBq), or if they are attempting conception within 18 months of therapy.

Original article Sawka AM *et al.* (2007) A systematic review of the gonadal effects of therapeutic radioactive iodine in male thyroid cancer survivors. *Clin Endocrinol (Oxf)* [doi:10.1111/j.1365-2265.2007.03081.x]

Optimal antihypertensive therapy in patients with the metabolic syndrome

To determine the optimal antihypertensive therapy for patients with the metabolic syndrome (MetS), *Black et al.* conducted a subgroup analysis of the ALLHAT study, comparing metabolic, cardiovascular and renal outcomes in individuals on thiazide-like diuretics to the outcomes in patients on angiotensin-converting enzyme inhibitors or calcium-channel blockers.

In total, 17,515 subjects (age ≥55 years; 8,013 subjects with MetS) were randomized to treatment with chlorthalidone, lisinopril or amlodipine. Mean duration of follow-up was 4.9 years.

Overall, the incidence of diabetes mellitus was lower in patients on lisinopril than in those on chlorthalidone. Among individuals without MetS, the incidence of diabetes was also lower in subjects on amlodipine than in those on chlorthalidone.

In patients with MetS there was no significant difference in the relative risk (RR) for cardiovascular and renal outcomes between individuals on amlodipine and those on chlorthalidone. The RR for heart failure and combined cardiovascular disease was significantly higher in patients on lisinopril than in those on chlorthalidone.

In subjects without MetS the RR for heart failure was higher for those on amlodipine or