



p 77

## Biliopancreatic diversion surgery improves insulin secretion early on in type 2 diabetes

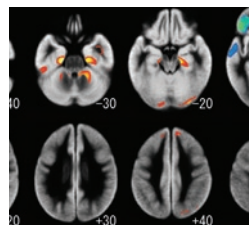
Type 2 diabetes mellitus (T2DM) results from both insulin resistance and insulin secretion that is inadequate to overcome the resistant state. Bariatric surgery as a means of weight reduction is often associated with recovery from T2DM; however, other factors seem to play a role in the success of this procedure. In the case of biliopancreatic diversion, research in T2DM patients has shown that this surgery reduces insulin resistance and normalizes glucose levels a few weeks after the procedure, even before substantial weight loss has occurred. In this issue Briatore *et al.*, after observing restored acute insulin response 1 month after the operation, suggest that improved insulin sensitivity and  $\beta$ -cell function also contribute to glucose normalization after biliopancreatic diversion. **See page 77**



p 96

## Impact of weight loss on bone density in obese adolescents

Adolescence is a critical time for acquiring bone mass, which has important implications for lifelong bone health. Although studies have determined how weight loss decreases bone density in adults, such repercussions are unknown for adolescents. Comparing the long-term bone density of obese adolescents enrolled in a successful 12-month weight-loss program with that in a control group, Stettler *et al.* found that, whereas overall bone mineral content of the obese children increased throughout the program and was higher than in the control group both before and after weight loss, the bone mineral content of their upper and lower limbs



p 119

decreased. These trends could be due to changes in lean and fat mass. **See page 96**

## Predicting sleep apnea risk through truncal obesity measurements

Truncal obesity measurements have the potential to help clinicians better determine the likelihood of an obstructive sleep apnea syndrome (OSAS) diagnosis and thus assess the need for an expensive polysomnography. Between 60% and 70% of patients diagnosed with OSAS are obese, a condition that is markedly more common in men than in women. By analyzing the correlation between apnea hypopnea indices and truncal obesity measurements in men and women, Martínez-Rivera *et al.* discovered certain parameters that helped them determine the likelihood of OSAS diagnosis. They found these measurements more useful than body mass index (BMI) in assessing obesity as a risk factor for OSAS in patients with a high BMI. **See page 113**

## BMI inversely related to brain volume in Japanese men

Research has indicated a positive correlation between obesity and an increased risk for Alzheimer's disease, a condition characterized by brain volume loss. Scientists at Tohoku University have found an inverse relationship between body mass index (BMI) and overall gray matter volume in Japanese men. Comparing self-reported BMIs with brain MRIs, they found a statistically significant negative correlation in men but not in women. They suggest that differences in weight distribution between men and women may be involved, as visceral fat is more common in men and is more often associated with metabolic syndrome. **See page 119**