measure of cardiorespiratory fitness in overweight and obese participants with T2D.

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How do very low energy diet brands available in Australia compare in terms of nutritional content and cost?

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Very low energy diets (VLEDs) effectively induce rapid weight loss but may not contain adequate macronutrients or micronutrients for individuals with varying nutritional requirements. Adequate protein intake during weight loss appears particularly important to help preserve fat free mass and control appetite, and low energy and carbohydrate content also contribute to appetite control with VLEDs. As obesity disproportionately affects those of lower socioeconomic status, cost is also an important consideration. Therefore, the purpose of this study was to compare the cost and nutritional content (with a focus on protein) of all available VLED brands in Australia. Cost was determined by averaging the price (in Australian Dollars) of all flavours for each brand, and then calculating the cost proportionally to expected consumption (e.g. higher ratio of shake to bar or soup intake). Nutritional content was extracted and compared between brands and to the Recommended Dietary Intake (RDI) or adequate intake (AI) of macronutrients and micronutrients for men and women aged 19—70 years or >70 years. Eight brands of VLED products were identified (KicStart™, Optislim®, Optifast®, Proslim, Tony Fergusson®, Dr MacLeod's®, Cambridge®, Vita Diet). The average cost per product varied widely, from $2.33 for KicStart™ to $4.43 for Cambridge®, which would result in a weekly difference of $44.10 if three products are consumed per day. All brands contained less protein than the requirements for males, larger individuals (BMI > 35 kg/m^2) and adults >70 years. Even brands with the highest daily protein content, based on consuming three products/day (KicStart™ and Optislim®, ~60 g/day), only met protein requirements of the smallest and youngest women for whom a VLED would be indicated. Considering multiple options to optimise protein content, we propose that adding pure powdered protein is the most suitable option because it minimizes additional energy, carbohydrate and cost of VLEDs.

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Parental body shape at midlife and its association with adult offspring weight measures

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Parental weight has been shown to be a strong determinant of offspring weight status. This study used cross-sectional self-reported and measured data from Stage 3 (2008—10) of the North West Adelaide Health Study (baseline 1999—2003, $n = 4056$), a longitudinal cohort of Australian adults, to investigate the association between midlife parental body shape and four indicators of obesity and fat distribution. The analysis used pictograms for recall of parental body shape, and measured body mass index (BMI), waist circumference (WC), waist hip ratio (WHR) and waist height ratio (WHtR) of adult offspring ($n = 2128$). Compared to both parents being a healthy weight, offspring were more likely to be overweight or obese if both parents were an unhealthy weight at age 40 (OR 2.14, 95% CI 1.67—2.76). Furthermore, those participants whose mother was an unhealthy weight were more likely to be overweight or obese themselves (OR 1.50, 95% CI 1.14—1.98). There were similar but lower results for those with an overweight/obese father (OR 1.44, 95% CI 1.08—1.93). The effect of one or both parents being overweight or obese tended to be stronger for daughters than for sons across BMI, WC and WHtR. BMI showed the strongest association with parental body shape (OR 2.14), followed by WC (OR 1.78), WHtR (OR 1.71) and WHR (OR 1.45). WHtR (42—45%) and BMI (35—36%) provided the highest positive predictive values for

overweight/obesity from parental body shape. This study showed that in this population, parental obesity increased the risk of overall obesity and central adiposity for adult offspring, particularly for daughters. Pictograms could potentially be used as a screening tool in primary care settings to promote healthy weight among young adults.

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Hunger and emotional eating after laparoscopic adjustable gastric banding: A path analysis predicting weight loss at 2 years post-surgery

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Levels of post-operative hunger have been associated with weight-loss after LAGB [1,2]. Dietary restraint has shown relationships with hunger cues and eating behaviours, as have stress, eating self-efficacy and emotional eating [3—6]. A path analysis model tested how pre-surgical dietary restraint may influence post-operative hunger and how perceptions of hunger affect eating self-efficacy, eating behaviours, and ultimately weight-loss across 24 months.

Participants were 147 patients (127 females, 27 males) about to undertake laparoscopic adjustable gastric banding surgery (LAGB). Questionnaires concerning eating behaviours and cognitions (cognitive restraint, hunger, eating self-efficacy, and emotional eating) and stress were completed prior to and at 12 months post-surgery. Weight was measured prior to and at 12 and 24 months post-surgery.

Results showed a negative relationship between presurgical dietary restraint and post-surgical hunger reduction, such that patients with the lowest pre-surgical restraint experienced the greatest hunger reduction at 12 months post-surgery. Lower hunger then predicted improvement in emotional eating which was partially mediated by eating self-efficacy. Improvement in emotional eating at 12 months post-surgery subsequently predicted better weight-loss between 12 and 24 months. Improvement in emotional eating was not explained by reduced levels of stress.

Improved eating behaviours are important predictors of weight-loss in LAGB. These results suggest that other pre and post-surgical mechanisms such as dietary restraint, hunger, and eating self-efficacy may influence the manner in which eating behaviours are expressed. In order to enhance outcomes for patients, future research should examine the pathways involved in improved eating behaviours after bariatric surgery.

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Dietary sugar knowledge and attitudes and their relation to free sugar intake and practices among adults: A systematic review

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Objectives: Excess free sugar consumption increases the risk of developing non-communicable diseases. Two potentially relevant antecedents of individuals' health behaviour are knowledge and attitudes. We conducted a systematic review: (1) to identify factors influencing adults' dietary sugar knowledge and attitudes; and (2) to determine if there is an association between adults' dietary