Evidence update

Systematic reviews and a meta-analysis (Davis et al 2016 and Headland et al 2016) comparing intermittent energy restriction[8] (IER) with traditional daily energy restriction (DER), found that both were effective strategies for weight loss with comparable losses of fat mass and retention of lean body mass over the short and longer term. The exception being post-menopausal women who may lose more lean body mass on IER compared with the DER diet (Davis et al 2016). Weight loss appeared to plateau at six months (Headland et al 2016) so weight maintenance should also be a part of any weight loss programme.

A systematic review and meta-analysis (Alhamdam et al 2016) comparing alternate day fasting and very low calorie (< 800 kCal/day[9]) found that both diets resulted in short-term weight loss (3–12 weeks' duration). There was no significant difference between diets on body weight or lean body mass but alternate day fasting resulted in greater loss of fat mass.

Low glycaemic index/load diet

Glycaemic index measures a particular carbohydrate-containing food's effect on a person's blood glucose level. Low glycaemic index foods, eg, oatmeal, legumes, and most fruits and non-starchy vegetables are defined as 55 or under; medium, eg, quick oats, brown rice, pita bread as 56–69; and high, eg, white bread, corn flakes, starchy vegetables, shortgrain rice as 70 or over. Fat, fibre, how a food is prepared and ripeness can affect the GI of a food.

Evidence update

Meta-analyses have found that consumption of higher glycaemic index carbohydrates and glycaemic load are associated with an increased risk of myocardial infarction and type 2 diabetes (Jakobsen et al 2010; Bhupathiraju et al 2014). Several other reviews (American Diabetes Association 2013; Wu et al 2015; Gögebakan et al 2011) have reported similar findings.

Vegetarian diets for weight loss

Lacto-ovo vegetarian diets are diets that include dairy products and eggs. A vegan diet excludes all animal products.

Evidence update

A meta-analysis of 12 randomised controlled trials (Huang et al 2015) compared lacto-ovo vegetarian (included dairy products and eggs) and vegan (no animal products) diets with non-vegetarian diets (controls) over a median of 18 weeks. There was large heterogeneity amongst the non-vegetarian diets (low fat, low in simple sugars, lipid lowering and energy restricted) while the vegetarian diets studied were mostly very low fat (<10 % fat) and high carbohydrate. Weight loss was greatest in those on vegan diets, followed by lacto-ovo vegetarian diets, then non-vegetarian diets. Not surprisingly weight loss was greater with energy restricted diets. After one year follow-up, intervention effects were moderated but some benefits remained. It is not clear if the differences in weight loss between vegan and lacto-ovo vegetarian diets were due to differences in total energy intakes of the diets.

8. Intermittent energy restriction included days of restricted energy intake followed by periods of unrestricted energy intakes
9. 800 kCal is equivalent to 3347.2 kilojoules