



Position Statement for Healthcare Professionals

Eggs and Obesity

Updated May 2017

It is estimated that 62.8% of Australian adults are currently overweight or obese (11.2 million people)¹. Overall more men (70.8%) are overweight or obese than women (56.3%)¹ and rates have increased over the last 2 decades. In 1995, 56.3% of adults were classified as overweight or obese. Rates increase with age with 79.4% of men and 65.7% of women, aged 45 years and over, classified as overweight or obese in 2014-15¹. Waist circumference measurements provide a similar picture with more than half (58.8%) of all men and (65.4%) of all women aged 18 years and over having a waist circumference that puts them at an increased risk of developing chronic diseases¹.

Overweight and obesity also affects children, with 27.4% of Australian children classified as either overweight or obese in the 2014-15 Australian Health Survey¹. Similar rates were found in 2011-12 with 25.3% of children aged 5-17 overweight or obese².

Eggs are a good source of high quality protein and provide at least 11 vitamins and minerals making them a valuable food in the diet for weight management. Eggs are also relatively low in kilojoules, with a serve of eggs* providing just 7% of a person's daily kilojoule requirements - around the same amount of kilojoules as 2 medium apples or 2 small slices of whole grain bread.

Weight management approaches

Individuals can lose weight on a variety of dietary approaches that reduce energy intake in some way. A review of the effectiveness of diets including low-fat, low-carbohydrate and Mediterranean approaches as well as commercial slimming approaches, meal replacements and intermittent fasting found that optimizing adherence is the most important factor for success³. Individuals vary in their preferences and ability to adhere to different diets. In the 2011-12 National Nutrition and Physical Activity Survey⁴, 24.4% of Australian adults on some kind of diet reported they opted for a 'low carbohydrate diet' or a 'high protein diet'.

Some of the benefits of a higher protein approach to weight management have been investigated in a number of systematic reviews and meta-analysis⁵⁻⁷. Higher protein diets ranging in composition from 27% to 35% dietary energy from protein have shown improvements in body weight, fat mass and triglycerides in short term studies^{5,6}. Furthermore, a systematic review and meta-analysis⁷ investigating the long term benefits found that a difference of 5% or greater in percentage protein between diets at 12 months was associated with a 3 times greater fat mass loss (0.9kg vs 0.3kg). The short term benefits of higher protein diets appear to persist to a small degree long term, particularly with better compliance to the diet.

Overall, the evidence to date suggests that higher-protein diets that contain between 1.2 and 1.6g protein/kg bodyweight/day and potentially include meal-specific protein quantities of at least ~25-30g protein/meal provide improvements in appetite, body weight management, cardiometabolic risk factors, or all of these health outcomes⁸.

Higher protein diets rely on regular serves of a wide range of high quality protein rich foods. Low saturated fat meals incorporating eggs would provide such protein and contribute to the variety of foods that are encouraged in this type of eating plan.



Eggs, satiety and appetite control

Few studies have looked specifically at the effect of eggs on weight loss however there is some evidence that supports the inclusion of eggs in an energy restricted diet with one study suggesting eggs may enhance weight loss⁹⁻¹¹.

Egg consumption impacts acute satiety and appetite responses, particularly in adults¹²⁻¹⁴. It has been demonstrated that eggs play a role in increasing levels of the satiety hormone cholecystokinin, delay gastric emptying, reduce glucose and insulin levels¹⁵ as well as decrease total energy intake post consumption¹⁶.

Weight Maintenance

For many individuals, the most difficult part of the weight management journey is maintaining the weight loss long term. Results of one of the largest diet studies to date, The Diogenes study¹⁷ showed that the best diet to maintain weight after weight loss, is higher in protein and lower in high-glycemic carbohydrates. The high protein (25% energy), low GI diet resulted in less weight regain over a 6 month period after an 8 week initial weight loss period compared to other dietary approaches¹⁷. In an investigation of the effect of protein and low GI on weight maintenance after 12 months, the higher protein content was the key to the diet's improved weight loss maintenance¹⁸. A 2014 systematic review and meta-analysis concluded that the short-term benefits of higher protein diets persist to a small degree in the longer term and that compliance with the diet leads to greater benefits⁷.

Conclusions

Overall, research to date suggests there is no one dietary pattern for weight management that will suit all individuals. However, one of the challenges for all dietary approaches aimed at weight loss is meeting recommended dietary intakes within a kilojoule-controlled diet and the current best available research suggests higher protein intakes may be an effective way of achieving this. Furthermore evidence also supports a role for higher protein diets in improving fat loss, lean muscle mass and weight maintenance. Eggs are a nutrient dense food, providing 581 kilojoules per serve*, a high quality source of protein and 11 vitamins and minerals. While different weight loss diets are suitable for different people, eggs, as a nutrient dense food, are likely to play a useful role in most approaches, particularly higher protein options.

This statement is for healthcare professionals only.

**One serve = 2x60g eggs (104g edible portion)*

Useful links:

Dietitians Association of Australia
www.daa.asn.au

References:

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