

Position Statement for Healthcare Professionals

Eggs and Teenagers

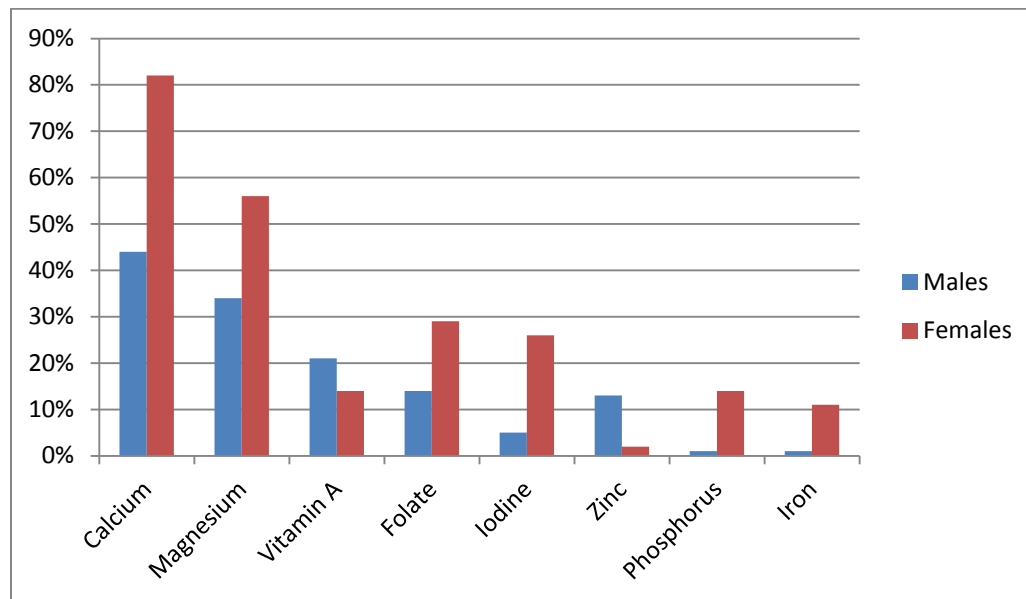
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Adolescents (aged 12-18 years) can have irregular eating patterns, with a tendency to skip breakfast, graze constantly, have a high intake of snacks, confectionary and soft drinks, experiment with different diets, and make poor food choices (1). Research shows teenagers’ dietary patterns are markedly different from those of adults, although they do stay relatively constant throughout the teenage years (2). As nutrient requirements during adolescence are high to fuel rapid growth and development, it is essential that teenagers are encouraged to eat a well balanced diet.

Nutrient Intakes

Sufficient energy and nutrient intakes are essential for children and teenagers to achieve normal growth and development (1). Adolescents have higher requirements for calcium than adults and need additional kilojoules to support the adolescent growth spurt (3), however research has shown that many teenagers have micronutrient intakes below the estimated average requirement (EAR). Results of the recently released 2007 Australian Children’s Nutrition and Physical Activity Survey (4) are highlighted below.

Figure 1: Percentage of adolescents not meeting EARs for key vitamins and minerals (4)



As shown in the graph, key nutrients of concern in adolescents’ diets are calcium, magnesium, vitamin A, folate, iodine, zinc (males only), and iron and phosphorus (females in particular). Intakes of vitamins D and E were also below the recommended levels.



Figures from the National Nutrition Survey show 10-14% of adolescents consumed eggs and egg dishes on the day of the survey (5). One serve* of eggs provides 239µg of vitamin A (27-34% RDI), 97µg of folate (24% RDI), 43µg of iodine (29% RDI), 0.5mg zinc (4-7% RDI), 208mg phosphorus (17% RDI), 1.7mg of iron (11-15% RDI), 0.8µg of vitamin D (16% RDI) and 2.4mg of vitamin E (24-30% RDI). Due to the wide range of nutrients found in eggs, they may therefore play a useful role in meeting nutritional requirements during adolescence.

Snacks

The National Nutrition Survey showed 60 percent of teenagers eat 5 to 6 times a day, indicating snacks constitute an important part of their total food intake (6). However high intakes of confectionary and salty snack foods may displace more nutritious foods in the diet, in turn leading to lower than ideal intakes for many nutrients. Australian data indicates that less than 2% of teenagers met the guideline for daily fruit and vegetable intake (4), while 22% consume fast food on a daily basis (7). Eggs are a nutrient-rich food and may therefore have a useful role to play as a nutritious snack food for adolescents.

Breakfast

Research from the 2010 NSW SPANS study indicates that between 30-40% of secondary school students skip breakfast (8). Research shows breakfast eaters are more able to control their weight, have better nutrient intakes, have better concentration levels and are better able to perform mental tasks throughout the morning (9-13). In particular, a low GI breakfast has been shown to benefit cognitive performance in adolescence more than a high GI breakfast or breakfast omission (14). Australian teenagers who skip breakfast are more likely to have lower intakes of key nutrients such as thiamin, riboflavin, calcium, magnesium and iron, with breakfast eaters tending to have a healthier diet overall (15). Improving teenage breakfast eating habits is therefore important to ensure good health, optimal mental and physical performance and for long-term establishment of healthy eating habits that may assist weight control. Eggs have been shown to have a greater satiety index than ready-to-eat breakfast cereals or white bread, and when eaten for breakfast, eggs can reduce the amount of energy (kilojoules) consumed at lunch by 29% (16). Research has also shown that eating a variety of foods at breakfast is associated with better mental performance in adolescence (17). As eggs provide a wide range of different nutrients including protein and numerous vitamins and minerals, they can make a significant contribution to teenagers' diets.

Health status

The level of overweight and obesity in Australian adolescents remains high, due to declining levels of physical activity, more screen time and the need for dietary change(18). Current figures suggest just under 1 in 4 adolescents are overweight or obese with 18% falling into the overweight category and 5% in the obese (18). Being overweight is more likely in adolescent boys than girls (18). Being overweight or obese substantially increases the risk of acute health problems and chronic disease. Studies in NSW show that overweight and obese children and teenagers are more likely to have risk factors for diabetes, cardiovascular disease and liver disease than those who are not overweight (19). Similarly, an Australian study among 14 year olds concluded that based on blood glucose, insulin and cholesterol levels and anthropometric measures, almost a third of the teenagers showed physical signs that raise their risk of developing heart disease later in life (20). Studies overseas also suggest being overweight or obese during adolescence can lead to emotional and behavioural difficulties(21).

Eggs are a highly nutritious food and are relatively low in kilojoules, with one serve* providing 581 kilojoules. As eggs are rich in protein, they may also increase satiety therefore contributing to a greater ability to manage total food intake over the day (16). For further details on eggs and obesity, refer to ENAG's *Eggs and Obesity* statement.

**Acne**

Some evidence suggests higher protein, low glycemic load diets can improve symptoms of acne that is common in teenagers (22-25). As a protein-rich food, eggs lower the glycaemic load of the diet and could therefore play a role in the treatment and prevention of acne.

Conclusion

Overall, eggs are a highly nutritious food that can play an important role in the diets of teenagers. Eggs are recommended as part of a healthy eating pattern that also includes adequate amounts of wholegrain breads and cereals, fruits, vegetables, low fat dairy foods, lean meat, fish and poultry and unsaturated fats.

This statement is for healthcare professionals only.

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

Useful links:

2007 Australian Children's Nutrition and Physical Activity Survey:
<http://www.health.gov.au>



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