

# **Position Statement for Healthcare Professionals**

## ***Eggs, Kids and Teens***

***Updated May 2017***

Childhood through to adolescence is a time of rapid growth and development so nutrition needs are particularly important during these times. It is therefore essential that children and teenagers are eating a well balanced diet. There are however a number of factors that may hinder adequate nutrient intake. In young children these tend to include fussy eating, allergies and high discretionary food intake. In teenagers they are more likely to be meal skipping (30-40% of secondary school students skip breakfast<sup>1</sup>, irregular eating/grazing and high discretionary food intake.

### **Overweight and Obesity**

The 2011-2012 Australian Health Survey found 18.2% of children aged 2 – 17 years are overweight and 6.9% are obese<sup>2</sup>. When combined, these numbers indicate that more than 25%, or 1 in 4, are overweight or obese, with similar rates reported for males and females.

### **Diet Quality**

The 2011-2012 NNPAS found children generally consume sufficient energy and key nutrients to maintain good health. Of note, however was the reported high intake of discretionary foods with almost 50% of children consuming food from this group daily. Furthermore, teenagers 14-18 years consumed the highest percentage of energy as discretionary foods of all age groups, with more than 40% of total energy coming from discretionary foods. As a result, children obtain 13% of their total energy intake from saturated fat which is almost twice the ideal of less than 7% per day<sup>3</sup>. Furthermore sugar intakes in children exceed the World Health Organisations recommendation that less than 10% of total energy is from free sugars<sup>4</sup>. In fact, 75% of 9-13 and 14-18 year olds consumed more than 10% of their energy intake from free sugars<sup>4</sup>.

### **Egg Consumption**

On average, 11% of children and 16% of teenagers consume eggs or dishes where eggs are the major ingredient on any given day. This level of intake has remained stable since 2007, with small increases in average and median intakes. The few key nutrients found to be low in children's diets compared to recommended dietary intakes (RDIs) are calcium across all age groups and iron, particularly in 1-8 year olds. Other studies also estimate that many children have an inadequate intake of long chain omega-3s<sup>1</sup>. Eggs provide useful amounts of iron and long chain omega-3s and can therefore play a useful role in meeting nutritional requirements during childhood. For teenagers, key nutrients found to be inadequate were calcium and vitamin A.

The proportion of Australian children consuming eggs on a daily basis has remained stable since 2007, with small increases in average and median intakes. The 2007 Australian National Children's Nutrition and Physical Activity Survey showed 11-14% of children and teenagers consumed eggs or egg dishes per day with an average daily consumption of 5-11 grams<sup>5</sup>, while the median intake was 37-43 grams. Similarly, the 2011-12 NNPAS found 10.7–15.6% of children (aged 2-18 years) consumed egg or egg dishes daily with an average daily consumption between 6-12 grams. The median intake reported in 2011-12 was 42-51grams revealing an increased intake in the amount of egg consumed by those who are eating eggs.

### The Contribution of Eggs to Children's Diets

Eggs are an ideal food for inclusion in children's diets as they are nutrient dense and provide useful amounts of folate, vitamin A, iron, iodine, zinc and omega-3s in particular. Eggs are also a good source of protein for children to support growth during this time<sup>6</sup>.

Table 1 highlights key nutrients of importance to children and teenagers that are found in eggs.

**Table 1 Key nutrient functions and their contribution to dietary intakes of children and teenagers**

Nutrient	Amount in 2x60g eggs*	% RDI# for children and teenagers <sup>7</sup>					Functions
		4-8 yrs	Boys 9-13 yrs	Girls 9-13 yrs	Boys 14-18 yrs	Girls 14-18 yrs	
<b>Protein</b>	12.7g	64%	32%	36%	20%	28%	Synthesis of body cells, tissues, enzymes, hormones and antibodies
<b>Vitamin A</b>	239µg	60%	40%	40%	27%	34%	Essential for growth; cell differentiation and eyesight development
<b>Folate</b>	97µg	49%	32%	32%	24%	24%	Growth and maintenance of healthy cells
<b>Zinc</b>	0.5mg	13%	8%	8%	4%	7%	Building and developing muscle tissue and internal organs; immune function
<b>Iron</b>	1.7mg	17%	20%	20%	15%	11%	Healthy blood cells and promoting growth
<b>Iodine</b>	43µg	48%	36%	36%	29%	29%	Proper mental development; metabolism
<b>Long chain omega-3s</b>	114mg	207%	163%	163%	91%	134%	Infant growth and development; behaviour, attention and learning in children

# Recommended Dietary Intake

Eggs are a core food within the 'lean meat and alternatives' group of the Australian Guide to Healthy Eating, and in the 2013 Australian Dietary Guidelines<sup>8</sup>, eggs are recommended as a highly nutritious food that can add variety to the diet. Eggs are also versatile and form the basis of many recipes acceptable to children's tastes, which can be especially important in the diets of fussy eaters who may refuse to eat other nutrient-rich foods.

### Eggs and Breakfast

Australian teenagers who skip breakfast are more likely to have lower intakes of key nutrients such as thiamine, riboflavin, calcium, magnesium and iron with breakfast eaters tending to have a healthier diet overall<sup>9</sup>. Furthermore, poor breakfast eating habits at 16 years of age have been linked with increased likelihood of developing the metabolic syndrome in adulthood<sup>10</sup>. Improving teenage breakfast habits is therefore important to ensure good health as well as establish long term healthy eating habits. Breakfast studies specifically conducted in teenagers showed those consuming breakfast felt more alert, satiated and content compared to those who did not consume breakfast<sup>11</sup>. Eggs have been shown to have a greater satiety index than ready-to-eat breakfast cereals or white bread and when eaten for breakfast can reduce the amount of energy (kilojoules) consumed at lunch<sup>12</sup>. A high protein breakfast including eggs has also been shown to impact appetite and satiety hormones and reduce food cravings in teenage girls who regularly skip breakfast<sup>13</sup>.

## Acne

Some evidence suggests higher protein, low glycemic load diets can improve symptoms of acne that is common in teenagers<sup>14-17</sup>. As a protein-rich food, eggs lower the glycaemic load of the diet and could therefore play a role in this area.

Overall, eggs are a highly nutritious food that can play an important role in the diets of children and 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 and poultry and unsaturated fat.

This statement is for healthcare professionals only.

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

## Useful links:

### 2013 Australian Dietary Guidelines

[http://www.nhmrc.gov.au/files\\_nhmrc/publications/attachments/n55\\_australian\\_dietary\\_guidelines\\_1.pdf](http://www.nhmrc.gov.au/files_nhmrc/publications/attachments/n55_australian_dietary_guidelines_1.pdf)

### Australian Health Survey

<http://www.abs.gov.au/australianhealthsurvey>

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