



SUMMARY OF EVIDENCE – HEALTHY SNACKS

BACKGROUND

A major contributor to the increase in obesity prevalence is the imbalance between energy intake and energy expenditure. The main cause of increased energy intake is the significant rise in consumption of unhealthy, generally highly processed¹ and 'non-core' foods² (commonly referred to as 'extras', 'junk foods' or by nutritionists as 'energy-dense nutrient poor foods and beverages' or 'empty kilojoules')³.

The other issue associated with consuming too much 'junk' food and drinks is that they displace healthier foods from the diet. This can compromise children's overall nutritional intake at a time in their lives of rapid growth and development when a good diet is essential. Setting good habits early, in respect to snacks, can contribute to better health of children and reduce the role of preventable diet-related diseases like high blood pressure, heart disease, high cholesterol, diabetes and osteoporosis.

For children aged 4-16 years, far too much – nearly 40% of the kilojoules they consume - come from 'non-core' foods and drinks – and they eat 4.5 (4-8 year olds) to 6.5 (14-16 year olds) serves per day of junk food⁴.

While this information relates to non-core foods, if chosen well healthy snacks can provide the opportunity for children to obtain the energy and nutrients they require for healthy growth and development and meet the daily servings recommended by The Australian Guide to Healthy Eating (AGHE).

There are a range of issues associated with snacks which include:

- > The frequency of snacks,
 - This related to both the number of snacks eaten during the day and their timing (e.g. too close to a meal where they can reduce a child's appetite for a more nutritional meal) and considering that some people think it is okay, or even beneficial, to snack continuously i.e. 'graze'

¹ Examples of 'minimally processed' foods are pasteurised milk, tinned fruit or frozen vegetables. Examples of highly processed foods are confectionery, soft drinks and potato crisps.

² As defined by The Australian Guide to healthy eating as foods which do not fit into the five 'core' food groups and are not essential in providing the body with the nutrients it requires

³ Processing often involves the removal of fibre and water and the addition of fat, salt and sugar to foods, resulting in foods that have many more kilojoules per 100g than do their non- or lightly- processed alternatives.

⁴ SA Health (2007) 2007 National Australian Children's Nutrition and Physical Activity Survey: South Australian Findings





- > The size of snacks
 - This relates not to volume or weight alone, but particularly to how many kilojoules they contain,
- > The quality of snacks
 - This relates to their nutritional profile and whether they contain fruit, vegetables, legumes, wholegrain cereals and other 'core' foods' and water versus how much unhealthy added fat, salt and sugar they contain.

FOOD CONSUMPTION

Australian consumption data is available from the 2007 National Children's Nutrition and Physical Activity Survey⁵ although it did not separate snacks from main meals.

The most commonly eaten foods between meals are packaged snack foods (such as chips and popcorn), cereal-based products (including cakes, biscuits and muesli bars), milk-based products and fruit (including roll ups) (Australian Bureau of Statistics 1997; Regan, Parnell et al. 2008).

Occasions of eating

The average occasions of eating and drinking among SA children is 6-8 times/day, with the number of occasions decreasing with age.

Energy Intake versus Time

For the majority of SA children, traditional meal and snack times are when the most energy-rich foods are consumed. However, for children 14-16 years a greater proportion of their energy intake occurs late into the evening.

Consumption of non-core foods

Intake of non-core foods or extra foods among SA children rose with increasing age. Boys across all ages consumed more non-core foods compared with girls. The average non-core food serve consumed by SA children aged 2-16 was 5.4 serves per day.

In addition, for the age 14-16 years, data from this survey shows:

- Older children consume the least amount of Fruit & Vegetables
- 14-16 year olds are less likely to meet the guidelines for consuming sufficient nutritious food

⁵ Department of Health and Ageing (2008). 2007 Australian national Children's Nutrition and Physical Activity Survey – Main Findings. Canberra





- 14-16 year olds are less likely to have breakfast than younger children and those who don't have breakfast or grab something to eat on the way to school e.g. at a servo or takeaway shop - have an overall poorer quality diet and are more likely to be overweight than those who do eat breakfast
- 14-16 year olds consume a greater proportion of their energy intake in the evening after an evening meal
- Intake of non-core foods increases with age, with an average of 6.5 serves of such foods and drinks consumed per day.

SOCIAL /CULTURAL ISSUES

- > Australian parents believe children can distinguish between healthy and unhealthy foods, however parents were concerned about their lack of ability to differentiate between more and less healthy pre-packaged snacks.⁶
- > Parents are concerned that their children eat too much 'junk food'. However, some parents believe that eating an unhealthy lunch is fine as it is only one meal of the day and will be neutralised by other healthy meals.
- > Many parents believe that a daily 'treat' of unhealthy snacks were tolerable and could be part of a healthy diet⁴
- > 'Treats' are often seen as a solution to children's food fussiness⁷

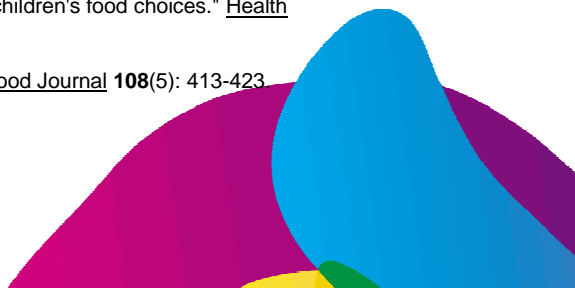
Factors influencing children's consumption of energy dense nutrient poor food and drinks

- > A wide range of factors influence children's eating behaviour, parents believe the main influencers are:
 - Media and food marketing (including toys and gimmicks)
 - Peers
 - Food availability
 - Children's preferences^{4,5,8}

⁶ Hesketh, K., E. Waters, et al. (2005). "Healthy eating, activity and obesity prevention: a qualitative study of parent and child perceptions in Australia." Health Promotion International **20**(1): 19-26.

⁷ Campbell, K. J., D. Crawford, et al. (2006). "Australian parents' views on their 5-6-year-old children's food choices." Health Promot. Int.: p8, October, 2006.

⁸ Kelly, J., J. Turner, et al. (2006). "What parents think: children and healthy eating." British Food Journal **108**(5): 413-423.





- > Children 7-11 years can differentiate between healthy and unhealthy food and recognise the benefits of healthy eating although most children report that they ate and prefer unhealthy food because they taste good and are 'addictive' ⁴
- > Adolescents show a contradiction between knowledge and behaviour, as they are aware of the consequences of obesity but do not relate these consequences to unhealthy eating.
- > Adolescents also ranked foods such as burgers, chips, processed foods, pizza, chocolate and sweets as the foods they like the most.⁹
- > Family influences play a large role in the eating patterns of children – what they eat, when they eat and how they eat (e.g. sit down meals, take-away, eating in front of the TV)^{10, 11}

AUSTRALIAN GUIDELINES FOR HEALTHY EATING

The 'Australian Guide to Healthy Eating' does not provide any reference to 'snacks' but does refer to 'extra' foods. 'Extra' foods are those which do not fit into the five 'core' food groups and are not essential in providing the body with the nutrients it requires. These foods often contain high fat, salt and sugar and are likely to contribute large amounts of energy to the diet. Examples of extra foods include sweet biscuits, pastries, soft drinks, chips and confectionary.

It is recommended that 4-11 year olds have no more than 1-2 serves per day and 12-16 year olds no more than 1-3 serves per day¹². The current average consumption in SA is 5.4 serves per day.

For further information visit

<http://www.healthysactive.gov.au/internet/healthysactive/publishing.nsf/Content/recommended-daily-servings>

⁹ Stevenson, C. Doherty, et al. (2007). "Adolescents' views of food and eating: Identifying barriers to healthy eating", Journal of Adolescence, Vol 30, pp 417-434.

¹⁰ Patrick and Nicklas, 2005

¹¹ Fitzgerald et al 2010

¹² Department of Health and Ageing. Australian Guide to Healthy Eating. Recommended Daily Servings





OTHER REFERENCES

Two student reports around snacks were written in the lead up to the healthy snacks theme which provides some great background to the development of the theme:

‘Consultation on Children’s Snacking Behaviours in Port Augusta – A report for OPAL’, July- Aug 2010. Emily Metcalfe and Sarah Hui, supervised by Camilla Leaver.

‘Compilation of Information to inform the development of an intervention portfolio to reduce intake of energy-dense nutrient poor foods and replace these with healthy alternatives.’ Tony Arjuna supervised by Patricia Carter.

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