



THE GEORGE INSTITUTE
for Global Health



food policy

WHO Collaborating Centre
on Population Salt Reduction



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The Centre is working with the WHO to develop a range of tools and resources to support countries to develop and implement salt reduction strategies and will be co-ordinating the Asia Pacific Salt Action Network (APSAN).

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KEY FINDINGS REPORT

Salt levels in common lunchbox items

This document was prepared by the Food Policy team at The George Institute for Global Health.

BACKGROUND

Reducing salt intake, with the aim of lowering blood pressure and preventing heart disease and stroke, has been identified as one of the most cost-effective options for improving public health.^(1, 2) In 2013 all World Health Organization Member States (including Australia) adopted the global target of a 30% reduction in population salt intake as part of an overarching goal to achieve 25% reduction in premature deaths caused by heart disease, cancer, diabetes and chronic respiratory diseases.⁽³⁾

Processed foods available in Australian supermarkets provide 75% of population dietary salt intake.⁽⁴⁾ Although some manufacturers have made efforts to reduce salt levels in their products, there are wide variations in the salt content of comparable foods.⁽⁵⁻⁷⁾

Each year World Action on Salt and Health coordinates World Salt Awareness Week to increase understanding of the harmful effects of salt on health. The theme for this year's Salt Awareness Week (16th – 22nd March 2015) is Salt and Children.

Like adults, children at all age groups eat more than the maximum recommended amount of salt each day as shown in the table below.⁽⁸⁾ Average salt intakes are from the 2007 Australian National Children's Nutrition and Physical Activity Survey (CNPAS).⁽⁹⁾ Of note is that data were recently released from the Australian Health Survey which showed very similar results to the CNPAS.⁽¹⁰⁾

Age group	NHMRC recommended upper limit ⁽¹¹⁾	Average salt intake per day
2-3 years	2.5g	4.2g
4-8 years	3.5g	5.4g
9-13 years	5g	6.7g
14-18 years	5.75g	7.9g

Simple measures need to be taken to help reduce salt intake during childhood as children with high blood pressure are more likely to have raised blood pressure as adults.⁽¹²⁻¹⁴⁾ Liking salty foods is a learned taste preference so it is important that children do not develop a taste for salt in the first place. Also dietary habits learnt during childhood and adolescence often influence eating patterns later in life. Eating a high a salt intake during childhood can influence blood pressure and may predispose a child to the development of a number of diseases including: high blood pressure, osteoporosis, respiratory illnesses (e.g. asthma), stomach cancer and obesity.⁽¹⁵⁾





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OBJECTIVE

The objective of this report was to examine the salt content of common processed lunchbox food items and to demonstrate how making simple switches to alternative brands could help reduce a child's daily salt intake.

METHODS

We examined processed foods typically found in children's lunch boxes from 16 product categories. Data from The George Institute's FoodSwitch database⁽¹⁶⁾ was used to identify higher and lower salt products in each category. We focused on processed foods as these contribute about 75% of dietary salt each day. We do note, however, that fresh fruit items may also be included in school lunchboxes. The processed food items selected were cross-checked in supermarkets by George Institute researchers to ensure they were available at the time this study was conducted.

For each pair of foods reported, the index product (higher salt value) and healthier product (lower salt value) are directly comparable. The FoodSwitch app will in each case identify the alternative healthier product as lower in salt and with a better overall nutritional profile based on the calculated Health Star Rating. Researchers also verified that the sodium value provided by FoodSwitch matched the product's Nutrition Information Panel (NIP) in-store.

The sodium values per 100g were used to calculate the quantity of sodium in a serve of each product and then multiplied by 2.5 to convert the sodium value into salt. The same serving size was used for each product to enable a fair comparison. The higher salt product serving size was used as the reference value. The amount of salt "saved" per serve was calculated by subtracting the amount of salt in the lower salt product from the amount of salt in the higher salt product.

RESULTS

The results show that by switching to healthier choices of the same food type, children can lower their dietary salt intake coming from their lunchbox meal. Table 2 shows some examples of how much salt can be saved by choosing lower salt healthier products and Table 3 shows that approximately 4 grams of salt can be saved in a typical child's lunchbox when lower salt options are chosen.



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Table 2. Comparison of salt in common kids lunchbox foods

Higher salt bases/breads	Salt (g/serve)	Lower salt bases/breads	Salt (g/serve)	Salt saved (g)
Helga's Continental Bakehouse Traditional White 84g	1.03	Woolworths Homebrand White Sandwich 84g	0.80	0.23
Mission Wraps Whole Grain 71g	1.60	Vitastic Healthy Soft Sorj Wraps Rye 71g	0.21	1.39
Helga's Continental Bakehouse Pumpkin English Muffins 63g	0.88	Mighty Soft Wholemeal Muffins 63g	0.52	0.36
Higher salt fillings		Lower salt fillings		
Primo Smallgoods Shaved Honey Leg Ham 50g	1.88	Primo Smallgoods Shaved Salt Reduced Leg Ham 50g	0.40	1.48
Kraft Sandwich Slices 12.3g	0.57	Devondale Quality Slices Mozzarella Cheese 12.3g	0.16	0.41
Heinz Tomato Ketchup 15g	0.31	MasterFoods Tomato Sauce Reduced Salt 15g	0.20	0.11
Higher salt snacks		Lower salt snacks		
Kellogg's LCMs Rice Bubbles Split Stix Yoghurty 23g	0.15	Freedom Foods Cocoa Crunch Rice Bars 23g	0.05	0.10
Uncle Tobys Le Snak Tasty Cheese Dip with Crackers 22g	0.70	Mainland Munchables Light Cheese & Rice Crackers 22g	0.24	0.46
Piranha Golden Hash Potato Grills Sea Salt 25g	0.79	Freedom Foods Slow Cooked No Added Salt Potato Chips 25g	0.01	0.78
Arnott's Scotch Finger Original 17.9g	0.23	Unibic Coconut Macaroons Original 17.9g	0.03	0.20
Arnott's Shapes Chicken Crimpy 25g	0.60	Arnott's Shapes Pizza 25g	0.35	0.25
Sun Rice Thin Salt & Balsamic Vinegar Rice Cakes 24g	0.75	Woolworths Select Thin Rice Cakes Sour Cream & Chives 24g	0.35	0.40

Table 3. Comparison of salt in an example lunchbox

Higher salt bases/breads	Salt (g/serve)	Lower salt bases/breads	Salt (g/serve)	Salt saved (g)
Mission Wraps Whole Grain 71g	1.60	Vitastic Healthy Soft Sorj Wraps Rye 71g	0.21	1.39
Primo Smallgoods Shaved Honey Leg Ham 50g	1.88	Primo Smallgoods Shaved Salt Reduced Leg Ham 50g	0.40	1.48
Kraft Sandwich Slices 12.3g	0.57	Devondale Quality Slices Mozzarella Cheese 12.3g	0.16	0.41
Heinz Tomato Ketchup 15g	0.31	MasterFoods Tomato Sauce Reduced Salt 15g	0.20	0.11
Kellogg's LCMs Rice Bubbles Split Stix Yoghurty 23g	0.15	Freedom Foods Cocoa Crunch Rice Bars 23g	0.05	0.10
Uncle Tobys Le Snak Tasty Cheese Dip with Crackers 22g	0.70	Mainland Munchables Light Cheese and Rice Crackers 22g	0.24	0.46
Total Salt	5.21		1.26	3.95g salt saved



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DISCLAIMER

Any Nutritional Information provided in this report, to the best of our knowledge, is current and based on reputable sources of evidence at the time of publishing. Food composition is ever-changing and every day we make updates to our FoodSwitch database to ensure the information is as current as possible. The information in this report is the best available to us and has undergone quality control. There may, nonetheless, be errors, so if you see one, please let us know and we will endeavour to update the information in our database as soon as possible. The nutritional information should be used as a guide only and should not be relied upon as a substitute for professional medical advice.

REFERENCES

1. Cobiac LJ, Vos T, Veerman JL. Cost-effectiveness of interventions to reduce dietary salt intake. *Heart*. 2010;96(23):1920-5.
2. World Health Organization. Global status report on noncommunicable diseases 2010 2010 [cited 2014 30 September]. Available from: http://whqlibdoc.who.int/publications/2011/9789240686458_eng.pdf?ua=1.
3. Sixty-sixth World Health Assembly. Follow-up to the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases WHA 66.10 2013 [cited 2014 21 August]. Available from: http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf.
4. Brown IJ, Tzoulaki I, Candeiias V, Elliott P. Salt intakes around the world: implications for public health. *International Journal of Epidemiology*. 2009;38(3):791-813.
5. Trevena H, Neal B, Dunford E, Wu JH. An evaluation of the effects of the Australian food and health dialogue targets on the sodium content of bread, breakfast cereals and processed meats. *Nutrients*. 2014;6(9):3802-17.
6. Dunford EK, Eyles H, Mhurchu CN, Webster JL, Neal BC. Changes in the sodium content of bread in Australia and New Zealand between 2007 and 2010: implications for policy. *Med J Aust*. 2011;195(6):346-9.
7. Christoforou AK, Dunford EK, Neal BC. Changes in the sodium content of Australian ready meals between 2008 and 2011. *Asia Pac J Clin Nutr*. 2013;22(1):138-43.
8. Grimes CA, Campbell KJ, Riddell LJ, Nowson CA. Sources of sodium in Australian children's diets and the effect of the application of sodium targets to food products to reduce sodium intake. *Br J Nutr*. 2011;105(3):468-77.
9. Commonwealth Scientific Industrial Research Organisation Preventative Health National Research Flagship and the University of South Australia. 2007 Australian National Children's Nutrition and Physical Activity Survey: Commonwealth of Australia,; 2008 [cited 2015 5 March].
10. Australian Bureau of Statistics. 4364.0.55.008 - Australian Health Survey: Usual Nutrient Intakes, 2011-12 2015. Available from: <http://www.abs.gov.au/ausstats/abs@nsf/Lookup/by%20Subject/4364.0.55.008~2011-12~Main%20Features~Sodium~403>.
11. Australian Government National Health and Medical Research Council. Nutrient Reference Values for Australia and New Zealand - Sodium: Australian Government,; [cited 2015 5 March]. Available from: <https://www.nrv.gov.au/nutrients/sodium>.
12. He FJ, Marrero NM, Macgregor GA. Salt and blood pressure in children and adolescents. *J Hum Hypertens*. 2008;22(1):4-11.
13. Lauer RM, Clarke WR. Childhood risk factors for high adult blood pressure: the Muscatine Study. *Pediatrics*. 1989;84(4):633-41.
14. Luma GB, Spiotta RT. Hypertension in children and adolescents. *Am Fam Physician*. 2006;73(9):1558-68.
15. World Action on Salt and Health. Salt and Children: World Action on Salt and Health; 2015 [cited 2015 5 March]. Available from: <http://www.worldactiononsalt.com/awarenessweek/World%20Salt%20Awareness%20Week%202015/142120.html>.
16. Dunford E, Trevena H, Goodsell C, Ng KH, Webster J, Millis A, et al. FoodSwitch: A Mobile Phone App to Enable Consumers to Make Healthier Food Choices and Crowdsourcing of National Food Composition Data. *JMIR Mhealth Uhealth*. 2014;2(3):e37.



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