



NEWSLETTER

ISSUE 2 – SPRING 2003
November 2003

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NZ FOOD: NZ CHILDREN

YOUNG CHILDREN'S HEALTHY EATING AND ACTIVITY PATTERNS DECLINE WITH AGE.

The eagerly awaited results of the 2002 National Children's Nutrition Survey revealed some challenges as well as reassurances for parents, health professionals and others. The nationally representative sample consisted of 3275 New Zealand children aged 5-14 years. Children were classified as 'Maori', 'Pacific' or 'NZ European and others' (NZE0).

The good news is that intakes of almost all nutrients are adequate. Young children (5-6 years) are doing well, eating healthier foods and are the most active. As children get older and have more freedom to make their own food choices, there is an increase in consumption of high fat and high sugar foods like hot chips and soft drinks. There is a corresponding decrease in nutrient-rich foods like milk, fruit and vegetables. The topical issue of childhood obesity was confirmed with almost one-third of children overweight or obese.

In the foreword of the report the Minister of Health and Prof Jim Mann of Otago University suggest the wide range of food choices, peer

pressure and advertising are responsible for the decline in the nutritional status of the older children. While there are many influences on a child's eating and activity patterns; health professionals play a key role in both preventing and treating nutrition-related disorders such as obesity.

Overall, Pacific children, after Maori children, were more likely to be overweight and have an inadequate diet compared to 'NZ European and others'. As expected, households of lower socio-economic status, large families, Maori and Pacific households were least likely to always be able to afford to eat properly. Twenty per cent of NZ households sometimes can't afford to eat properly (48% Pacific households).

Overweight and Obesity

Close to 27 percent of 5 – 6 year olds are over a healthy weight but the figure climbs to nearly 34 percent in the 11-14 year old group. The next issue of "Nutrition Newsletter" will discuss how to assess overweight/obesity in childhood.

- 21.3% children overweight
- 9.8% children obese

Physical Activity

How active are children?

Many children are active, especially boys, though activity levels in girls decline by age 11-14 years. Most children do not watch more than 2 hours TV a day and over 60% do not play computer or video games. Many children walk regularly and other popular activities are active games, running, cycling, skating, tramping, rugby and dancing. Younger children (5-10 year olds) are more active than older children during school breaks, particularly girls.

- One half are transported to and from school.
- Only ¼ of 5-6 year old girls actively travelled to and from school.
- Half of 11 – 14 year old girls are not very active.

Are our children's diets adequate?

Almost all children had adequate carbohydrate, protein, fibre, vitamin and mineral intakes, though some Pacific children had low intakes of Vitamin A and folate. The only group showing signs of iron deficiency were girls who had reached puberty. Half the children did not consume too much fat, particularly younger children. Calcium

intake was adequate for most, with over half of calcium from milk and dairy.

Fat

- Half of children met the Nutrition Taskforce guideline for contribution of total fat to energy of no more than 33%. Younger children and NZEO children were more likely to meet the target. Saturated fat was the main type of fat consumed.
- The major source of fat in the children's diets was potatoes, taro and kumara, supplying nine percent of total fat intake. Much of this is from hot chips (eaten by 65% of children at least once a week) and potato crisps (eaten by 83% of children at least once a week)
- Other sources of fat are milk; biscuits; spreads; pies and pasties.
- Three-quarters of children drink standard milk with 11-14 year old girls more likely to drink lower-fat milk (33%).

Sugar

- Beverages (not including milk) and sugar and sweets provides 18% of carbohydrate.
- Sweetened drinks have few useful nutrients and are harmful to teeth.
- Older children were more likely to drink cola and soft drinks regularly.

% Children Consuming Beverages at Least Once a Week	
Milk	72%
Powdered Fruit Drink	54%
Soft Drink	45%
Cola	43%
Fruit Juice	43%
cordial	32%
Flavoured Milk	22%

Vitamins

- Only 7.5% overall had inadequate intakes of Vitamin A, however 37% of Pacific females had inadequate intakes (20% Pacific males, 13% Maori males).
- About 11% of Pacific children had inadequate intakes of riboflavin (vitamin B2).
- Most children had adequate intakes of folate except for females, and Pacific males aged 11-14 years.

Calcium and iron

- Those most likely to have inadequate intakes were Pacific children and 11-14 year olds. Calcium intake reflects consumption of milk and dairy products with Pacific children drinking less milk.
- The only group with a significant prevalence of iron deficiency (biochemical measurements) were menstruating girls.

Supplement use

- Only 5% of children used supplements, particularly NZEO children. Multivitamins and minerals, and Vitamin C were the most common supplements.

What foods are our children eating?

Popular foods

- Bread - especially white.
- Poultry – especially Pacific children.
- Milk - especially standard milk.
- Pasta with meat and tomato sauce and Chinese type dishes.
- Noodles, potato chips, sweet drinks, biscuits.
- Breakfast cereal – eaten by two out of five children daily.
- Fruit – 2+ serves a day eaten by 2 out of 5 children, especially younger children.
- Vegetables – 3+ serves a day eaten by 3 out of 5 children.
- Margarine – used by half of children, butter used by one-fifth.
- Tomato sauce – eaten by four out of five children at least weekly.
- Half are not adding salt at the table.

Eating Patterns

Older children and Pacific children are less likely to eat food at home before school but more likely to eat food on the way to school. The majority of school children brought most of their food from home, especially younger children.

Healthy eating and activity tips for children

- The following tips are consistent with the Food and Nutrition Guidelines. The survey portrays the eating and activity patterns of a group of children, therefore advice needs to be tailored for the individual child. The tips pertain to all children, however 11-14 year olds require more changes to meet the Food and Nutrition Guidelines.
- Maintain activity levels as children get older.
- Adolescent girls need to be more active.

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- Eat more fruit and vegetables.
- Replace soft drinks, juice and powdered beverages with water and milk, especially older girls and Pacific children.
- Lower-fat milks are recommended for all age groups with some needing to increase milk intake.
- Eat less foods high in fat such as hot chips, potato crisps, pies.
- Replace some saturated fat with monounsaturated and polyunsaturated fat.
- Supplements are unnecessary for most children, as generally mineral and vitamin intakes are adequate.
- Advice menstruating girls on way to increase iron intake.
- For those at risk of inadequate Vitamin A, eat more milk, fruit and vegetables.
- For those at risk of inadequate folate, eat more bread, fortified breakfast cereals and vegetables.
- For those at risk of inadequate riboflavin, drink more milk and eat more dairy products and breakfast cereals

HIGHLIGHTS FROM THE NUTRITION SOCIETY OF NEW ZEALAND CONFERENCE (NOVEMBER 2003 attended by Sally McKay)

Iodine deficiency – an emerging issue.

A person with a goitre was a common sight in the early 20th century in New Zealand, leading to iodisation of salt. Consequently iodine status improved throughout the country. However recent studies on adults, and the Children's Nutrition Survey, indicate many people have mild iodine deficiency. Further studies show enlarged thyroid glands, but there is little evidence of any associated clinical disease. The high prevalence of mild iodine deficiency is occurring for several reasons. People are consuming less iodised salt as they have picked up the message to use less salt at home, and are consuming more commercial foods that do not contain iodised salt. Iodophors used for cleaning in the dairy industry were a major source of iodine but are being phased out. A Government advisory group on iodine has been established to explore ways of increasing iodine status such as fortification. Meanwhile all New Zealanders are encouraged to use iodised salt (not rock salt) when using salt, and increase consumption of fish, shellfish,

seaweed. Iodine or kelp supplements are recommended under medical supervision only as high levels of iodine can have adverse effects.

Healthy Bones

Recent studies conducted by The University of Otago have investigated risk factors for fractures in children:

- Children and adolescents who were tall and heavy throughout growth were more likely to fracture a bone, especially before puberty.
- Obese Caucasian children are at increased risk of fracture because they carry more weight per bone area than non-obese children (other ethnic groups were not included the study).
- Children who avoided drinking milk because of taste or intolerance were shorter for age with small bones and low bone density.

Some adolescents are concerned that dairy products will make them fat.

- A Massey University study found no difference in weight or fat mass between children and adolescents supplemented with dairy food (to increase calcium intake) and those that were not.

What to do

- Encourage consumption of low-fat milk and milk products by children and adolescents:
2- 3 serves a day
1 serve = 1 glass milk; 1 pottle yoghurt; 2 slices cheese; 2 scoops ice-cream.
- Alternative sources of calcium are soy milk, wholemeal bread, peanuts, broccoli, canned salmon, sardines, spinach, baked beans and tofu.
- Attain a healthy weight

Chitosan – is this weight-loss supplement effective?

Chitosan is a marine polysaccharide promoted to lose weight through binding fat in the gut. Results from previous studies were conflicting, so the University of Auckland conducted a randomised controlled trial in 250 overweight people. There was no clinically significant difference in weight between groups. Those taking chitosan reported more abdominal pain, bloating and constipation.

FOOD AND NUTRITION GUIDELINES FOR HEALTHY ADULTS: A BACKGROUND PAPER, 2003

The Ministry of Health has a series of 7 population-specific Food and Nutrition Guidelines. The guidelines are designed to be positive, food-oriented statements. They are produced in a pamphlet and supported by a technical background paper.

The Guidelines for Adults have recently been reviewed and modified. The major changes to the previous Adult Guidelines reflect some of the key nutrition issues. The first guideline is now 'maintain a healthy body weight'. The recommendation for alcohol is 'to limit intake' rather than 'a moderate intake'. There is an additional guideline on food safety.

The new Food and Nutrition Guidelines for Adults are:

1. Maintain a healthy body weight by eating well and by daily physical activity.
2. Eat well by including a variety of nutritious foods from each of the four major food groups each day.
3. Prepare foods or choose pre-prepared foods, drinks and snacks:
 - with minimal added fat, especially saturated fat
 - that are low in salt; if using salt, choose iodised salt
 - with little added sugar; limit your intake of high-sugar foods.
4. Drink plenty of liquids each day, especially water.
5. If choosing to drink alcohol, limit your intake.
6. Purchase, prepare, cook and store food to ensure food safety.

The accompanying background paper is a current, comprehensive document written to support health professionals and teachers in their work. It contains general nutrition information as well as information specific to adult New Zealanders. It includes:

- Nutrients, food and drinks: discusses the role of the major nutrients, current and recommended intakes, sources of the nutrient and nutrition advice for healthy adults.
- Nutrition and health outcome: discusses the most important non-communicable diseases where food and nutrition are significant risk

factors including obesity, diabetes, heart disease, hypertension, cancer and osteoporosis.

- Physical activity
- Nutrition and health in Maori and Pacific people
- Food security, fortification, supplementation and food safety

Further information:

Ministry of Health

Ministry of Health. 2003. *NZ Food NZ Children: Key results of the 2002 National Children's Survey*. Wellington: Ministry of Health.

Ministry of Health. 2003. *Food and Nutrition Guidelines for Healthy Adults: A background paper*. Wellington. Ministry of Health.

www.moh.govt.nz

Public Health

Food and Nutrition Background Papers for 0-2 years, 2-12 years, adolescents, adults, older people, pregnant and lactating women.

ESTIMATED FOOD COSTS

The publication "Estimated Food Costs" is collated and published by the Department of Human Nutrition at the University of Otago. The data is collected from four supermarkets in five main centres – Auckland, Hamilton, Wellington, Christchurch, and Dunedin.

The Estimated Family Food Costs are calculated using specified amounts of the food categories (e.g. meat, bread, eggs, fruit) needed for one week. These figures are based on the New Zealand Food and Nutrition Guidelines. There are three cost categories: Basic, Moderate and Liberal. Most families will meet their nutritional needs when spending the amount of money specified in the basic costs. However, spending less than this amount increases the risk of not getting all the necessary nutrients. The chances of consuming an inadequate diet increase as the amount spent to purchase food falls below the basic costs.

Whilst there is no specific information for Nelson, the tables below represent figures from the two closest cities included in the study: Wellington and Christchurch. For example, the estimated food cost for a two-parent family, with a teenage son and a 10yr old child on a basic diet would be \$205 in Wellington and \$203 in Christchurch. These figures do not include non-food items.

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**Estimated Weekly Food Costs for
Wellington –2003**

	Basic	Moderate	Liberal
Man	\$51	\$66	\$76
Woman	\$48	\$63	\$72
Boy	\$64	\$83	\$96
Girl	\$54	\$70	\$80
10yr old	\$42	\$55	\$63
5yr old	\$29	\$37	\$43
4 yr old	\$27	\$35	\$40
1 yr old	\$23	\$30	\$34

**Estimated Weekly Food Costs for
Christchurch –2003**

	Basic	Moderate	Liberal
Man	\$50	\$65	\$75
Woman	\$48	\$62	\$72
Boy	\$63	\$82	\$95
Girl	\$53	\$69	\$79
10yr old	\$42	\$55	\$63
5yr old	\$28	\$37	\$42
4 yr old	\$26	\$34	\$39
1 yr old	\$23	\$30	\$35