

6.0 Preschool nutrition

The years between a child's 2nd and 5th birthdays represent a period of rapid social, intellectual and emotional growth. At the same time, overall physical growth is decelerating while motor skills are being fine-tuned. Preschoolers are busy exploring the environment (1). They have tested their independence and are now ready to learn.

Preschoolers have two common preferences. Firstly, they have a preference for routine in daily life. Most children need some structure and routine to their day. Generally, they prefer meals and snacks at regular times, as governed by the family's lifestyle.

Secondly, they have a preference for simplicity. Many children may like simply prepared, mild tasting foods that they can easily identify. They prefer foods they can manage, for example, cut-up vegetables they can eat with their fingers and soups they can drink from a cup (1).

In the preschool years, food takes on more complex meanings. Preschoolers have an association with food of more than eating. Foods have specific meanings determined by a child's associations with them. For example, sweets may mean a reward for good behaviour in the supermarket. Additionally, caregivers should be aware that early impressions associated with various uses of food, affect food-related attitudes and practices that can last throughout life (1).

Food preferences can now be influenced; parents and friends as well as television advertising will affect food consumed.

Acceptance of new foods, new textures and new tastes takes time and patience. Caregivers should be encouraged to maintain their responsibility to provide preschoolers with adequate amounts of a variety of nutritious foods and allow the children to select the amounts needed from these foods (1).

6.1 Eating patterns

Once children commence child care, kindergarten or school, life takes on a new routine. A regular intake of food is needed throughout the day to keep children active and to help their concentration while learning.

Some children in this age group are still fussy, so encourage parents to offer a wide variety of foods and regular meals and snacks, and allow children to eat to appetite without force or arguments (3).

Developmental characteristics of preschoolers (2)

Generally in preschoolers there is:

- progressive acquisition of new skills. Preschoolers are striving for independence and gaining competence in such activities as tying their shoelaces, brushing their teeth and pouring milk. A preschooler's oral motor development and manual dexterity should be considered, so that foods of appropriate texture, consistency and ease of eating are chosen for them
- energy. Sitting still for more than a few minutes might be difficult. Preschoolers need plenty of time for active play and opportunities to develop gross motor coordination
- more effective communication. Language is important. Peers become increasingly important. Most preschoolers enjoy sharing food with friends and carers
- a keen curiosity. 'Why' has usually replaced 'no' as the favourite spoken word. The kitchen provides an opportunity for experiments, crafts, and participation in food preparation
- comfort with the familiar but willingness to try new challenges. Food fads are common at this time. Preschoolers might insist on having a particular food prepared in a particular way for several days then, once it has been experienced to the full, become infatuated with another food. This has been called 'fussiness', but it is actually characteristic of normal development. Although variety may be limited while the fad persists, the preschooler is gradually expanding their food choices.

Preschoolers showed significant levels of nutrition knowledge.... They were able to identify foods of higher nutrient density as being ones to use to make their doll 'grow bigger and stronger' (1).

Table 15 Typical physical and social/personal characteristics related to eating during the preschool years

Age	Physical characteristics	Social/ personal characteristics
3 – 4 years	<ul style="list-style-type: none"> Holds handle on cup Pours from a small jug Uses fork Chews most foods Able to choose between 2 alternate foods Influenced by television commercials Likes to copy food preparer Imaginative play 	<ul style="list-style-type: none"> Improved appetite and interest in food Favourite foods requested Likes shapes, colours, ABCs
4 – 5 years	<ul style="list-style-type: none"> Uses knife and fork Good use of cup Good self-feeder 	<ul style="list-style-type: none"> Rather talk than eat Food fads continue Motivated to eat by incentives Likes to help Interested in nature of food and where it comes from Peer influence increasing
5 – 6 years	<ul style="list-style-type: none"> Independent at feeding 	<ul style="list-style-type: none"> Conforming Less suspicious of mixtures but still prefers plain foods Social influence outside home increasing Food an important part of special occasions

Adapted from NHMRC: *Dietary Guidelines for Children and Adolescents in Australia*, 2003 (2)

6.2 Nutrition during preschool years

How much food is eaten at this age varies from child to child and from day to day and is influenced by growth and activity levels. The following serving sizes and amounts can be used as a guide to feeding 4 – 7 year old children each day. Some serve sizes are different to those commonly used for adults.

These suggestions are a guide only.

Every child is different, and their activity and growth rate changes from day to day. The main focus should be on the introduction of a healthy eating pattern and family meal acceptance rather than on serves.

Suggested sample servings for children aged 4 –7 years (4,5)

Food group	Serves per day	1 serve
Bread and cereals, rice, pasta and noodles	3 - 4	2 slice of bread OR 1 medium bread roll OR 1½ cup ready to eat cereal OR 1 cup cooked porridge OR 1 cup cooked rice, pasta or noodles
Fruit	2	1 medium piece of fruit OR 2 small pieces of fruit OR 1 cup diced fruit OR ½ cup fruit juice 1 glass of fruit juice per day is enough. Fresh fruit is best but frozen, canned and dried are also good alternatives
Vegetables, legumes	4	½ cup cooked vegetables OR 1 cup salad vegetables OR 1 small potato ½ cup legumes
Meat, fish, poultry, eggs, nuts and legumes	½ - 1	65-100g cooked meat or chicken (2 small chops, ½ cup mince, 2 slices roast meat) OR 80-120g cooked fish OR ½ cup legumes OR 40-60g cooked fish OR 2 eggs OR ½ cup nuts. For safety reasons never give nuts to children under 5 years of age – always use paste
Dairy Milk, yoghurt, cheese	3	250ml (1 cup) milk OR 250ml (1 cup) custard OR 200g tub yoghurt OR 40g cheese

Extra foods:

These are foods that do not fit into the five food groups. They are not essential to provide the nutrients the body needs. NO more than 1 – 2 extra foods per day for 4 – 7 year olds.

Some examples are:

- | | |
|-------------------------------------|--------------------------------------------------|
| 1 (40g) donut | 1 small packet (30g) potato crisps |
| 4 plain sweet biscuits | 12 hot chips |
| 1 (40g) slice cake | 1½ scoops of ice cream |
| 1 tablespoon butter, margarine, oil | 60g jam and honey (1 tablespoon) |
| 1 (375mL) soft drink | 25g (1 fun size or half a regular) chocolate bar |

A recent study in Queensland found less than 20% of 4 - 7 year olds consumed the recommended number of serves of vegetables for their age group. (6)

Refer to *My child won't eat vegetables* in the toddlers section.

6.3 Suggested meal plan for a 4-7 year old

Breakfast	1 cup cereal with 1 cup milk 1 slice toast with polyunsaturated margarine with spread eg. <i>Vegetemite</i> , jam, peanut butter, cheese, egg
Snack	Water Fruit eg. 1 apple/banana, orange OR 2 apricots OR 1 cup canned fruit OR 4 dried apricot halves
Lunch	Meat, chicken, fish, cheese or egg with 1 cup pasta/rice OR 2 slices of bread ½ cup cut up vegetables OR 1 cup salad vegetables ½ cup custard or yoghurt Water to drink
Snack	1 cup milk 1 slice bread with baked beans OR fruit and vegetable platter OR savoury vegetable muffin
Evening meal	Chicken, meat, fish, cheese or egg eg. 2 small chops, slice of roast meat, piece of fish 1 potato and ½ cup other vegetables ½ cup pasta OR rice OR 1 piece of bread ½ cup custard/yoghurt with ½ cup diced fruit

6.4 Eating habits

A number of strategies can be adopted to encourage good eating habits and monitor food intake (2)

- Establish routines where the child and caregiver sit down together and talk during meal times and snacks.
- Establish habits such as milk with a meal and water at bedtime that will help ensure variety and nutritional adequacy.
- Keep a 'snack-box' in the fridge or on the kitchen bench containing healthy snack foods such as pieces of fruit, vegetables, cheese and small sandwiches, that the child can either use independently or have offered to them. This helps to monitor what the child is eating between meals.
- Introduce the practice of having the child at the table for meal times as soon as he or she is able to sit up and grasp foods.
- Do not give the child too large a serving. It is better to offer small amounts and have more available if they want it.
- Provide foods the child likes, plus a new food to try. Be accepting if the child does not like particular foods, but remember that likes and dislikes change over time. Do not avoid serving a food that the child dislikes but that the rest of the family likes: continue to serve it, placing only a small amount on the child's plate, and accept it if they do not eat it.

6.5 Growth (1,3)

Children grow at a steady rate during the kindergarten and early school years. 'This slower growth rate is reflected in a decrease in appetite and less interest in food. Paradoxically, while parents worry that their preschooler may not be eating enough, the incidence of childhood obesity continues to rise' (1). **Strict or low fat diets are not recommended because children's energy and nutrient needs are high.** For parents who are concerned about excessive weight gain, a good approach to discuss with them is to:

- develop healthy eating habits for the whole family
- encourage regular physical activities for everyone
- limit television time.

See obesity section for further discussion

6.6 Appetite (2,3)

- There is considerable variation in children's appetite, fluctuating from day to day, depending on their rate of growth and level of physical activity.
- Children are able to decide how much food they need if allowed to eat to appetite, encourage parents to allow this.
- Children commonly eat small amounts of foods, frequently, due to their small stomach capacity.
- Many parents find their children eat better at certain times of the day.
- Forcing children to 'clean the plate' or giving sweets as rewards may lead to problems of overeating later on.

Tiredness and irritability can prevent children from eating, especially at the evening meal (1)

6.7 Physical activity

Children should be encouraged to be physically active from a young age. Physical activity helps children feel good and encourages a healthy appetite. Encourage parents to promote a family setting that:

- plays games in the backyard
- goes for a walk in the park
- learns to swim
- participates in kindergarten and school activities
- watches less television

For more ideas check out *Eat Well, Be Active* website at



www.health.qld.gov.au/eatwellbeactive/funideas/active_fun.asp

www.health.qld.gov.au/eatwellbeactive/beactivetips/tips_for_families.asp

6.8 Packing lunches for kindergarten

If children are away from home for 8 hours, they should eat about half of the food needed for the day. The rest should be eaten at breakfast and at the evening meal (7).

Treats

By this age children can eat independently and enjoy the social aspects of eating. Having friends means eating out of home more, and the occasional meal at a fast food restaurant or party filled with high energy and fat snacks does no harm if good nutrition is continued most days.

Parent handout can be found at

www.health.qld.gov.au/cchs/Gen_Nutrition_Activity/lunches.pdf



Healthy snacks

Parent handout can be found at

www.health.qld.gov.au/cchs/Gen_Nutrition_Activity/lunches.pdf



Healthy drinks

An adequate intake of fluids is important at all ages. Children should be encouraged to drink as much water as possible, in preference to other fluids. Milk is a good source of fluid, an important source of calcium and, because it has a high protein content, it has a greater satiating effect than other drinks. 1 - 3 glasses of 250 ml of milk a day (depending on other dairy consumption) is enough.

Sweet drinks such as juice, soft drink or cordial are unnecessary in a child's diet.

6.9 Food preferences

Children's eating is not only influenced by family life but also by other children and messages from television. Children can learn to make healthy food and lifestyle choices if given help from parents and carers (3).

Parents and peers

Parental influences on food patterns are critical in the development of food preferences (1, 6)

- **parental pressure**, even if it is positive, can affect a child's food acceptance (1).
- Using foods as **rewards** or presenting them paired with adult attention increases a child's preference for that food.
- **frequency** with which children see a particular food (1). It is important children are presented new foods frequently; continued exposure promotes acceptance.
- **role modelling**: when children observe adults consuming a food, it is more likely the children may consume the food (1)

Peer influence can also affect children's food preferences as they age (1).

Children should like to eat and enjoy food, not see food as threatening or as a reward (9).

Television advertising

In addition to its effects on physical activity, television exposes children to numerous food advertisements. Public health experts and nutrition educators have expressed concern that many of the food advertisements on television directed at children are for a narrow range of products that are high in fats, sugars and/or salt and low in dietary fibre (2).

There has been increasing evidence that television commercials influences child food preferences. An American study found television commercials were important influences on the types of food children ask their parents to buy and the foods they buy for themselves (1).

Sweetened breakfast cereals, candy, desserts, low-nutrient beverages, and salty snack foods were the products most commonly advertised to children and are also the items most frequently requested of parents. Kraak and Pelletier (2) suggest that building children's and teenagers' skills in processing consumer information is one strategy—when combined with parental guidance and environmental support (including government–industry partnerships)—that can help young consumers make 'healthful' dietary choices before undesirable dietary behaviours have developed.

Check

Food tips for growing children (3):

- ✓ a variety of foods should be offered every day
- ✓ encourage healthy eating for everyone in the family
- ✓ let children decide if they are full or hungry
- ✓ offer healthy snacks between meals
- ✓ encourage children to help prepare meals
- ✓ encourage water rather than sweet drinks
- ✓ encourage family mealtimes and activities to be enjoyed together

6.10 Useful websites and resources

Key state and national documents for health workers

Dietary Guidelines for Children and Adolescents in Australia and Infant Feeding Guidelines for Health Workers

Optimal Infant Nutrition: evidence-based guidelines

Infant and Child Nutrition in Queensland 2003

Report of the Chief Health Officer Queensland, 2006

Further professional development reading

Parent handouts

Child Health Information Fact Sheets

www.health.qld.gov.au/child&youth/factsheets/

Parent handout for lunch box and snack ideas

‘Great lunch and snack ideas for hungry kids’ (see brochure):

To order contact

Queensland Health Publications

GPO Box 48

Brisbane QLD 4001

Phone (07) 3234 1053

Fax (07) 3234 0659

www.health.qld.gov.au/cchs/Gen_Nutrition_Activity/lunches.pdf

A note on *Fun not Fuss with Food*

Fun not Fuss with Food was developed in 2000 by a multidisciplinary team of health professionals at the Gold Coast Health Service District, and is now distributed nationally through Population Health Services.

It is a single session, two-and-a-half-hour workshop that covers nutrition for children and behavioural management strategies. The workshop aims to increase the capacity of parents with children aged 2 – 10 years in managing their child’s problem eating and mealtime behaviours. There is a range of resources to support health professionals (child health nurses, child psychologists/early intervention specialists, and nutritionists/dietitians) to deliver the workshop. These include a facilitator’s manual, facilitator’s guide (video/DVD), and parent resources. This package can be ordered from

qheps.health.qld.gov.au/PHS/Documents/sphun/27966.pdf

Some parent handouts are included in the manual and can also be accessed at

qheps.health.qld.gov.au/ahwac/docs/nutrition/fun_not_fuss.pdf

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