Caring for Infants
A guide to feeding 0 to 12 month-old infants in long day care centres
Acknowledgements

Maine Norberg, was employed by Sydney South West Area Community Nutrition, with funding from the NSW Department of Health, to review and update Caring for Infants – food and nutrition for 0 to 1-year-olds in long day care centres.
The following individuals, organisations and child care centres are acknowledged for their input into this revised edition of Caring for Infants:

- All children’s services and individuals who participated in the original 2005 survey.
- Edwina Macoun – Centre for Health Advancement, NSW Department of Health.
- Members of the NSW Health Early Childhood and Child Care Nutrition Working Party:
  - Andy Bravo – Community Nutritionist, South Eastern Sydney and Illawarra Area Health Service.
  - Kalliope Conomos – Early Childhood Nutritionist, South West Sydney Area Health Service.
  - Karen McCavana – Community Nutritionist, Western Area Health Service.
  - Lesley Marshall – Community Nutritionist, Northern Sydney and Central Coast Area Health Service.
  - Melissa Macdouall – Community Nutritionist, Greater Western Area Health Service.
  - Melinda Neve – Community Nutritionist, Hunter and New England Area Health Service.
- Soumela Amanatidis – Community Nutrition Manager, Sydney South West Area Health Service.
- Dr Valencia Soutter, Dr Rob Loblay and Dr Anne Swain, Royal Prince Alfred Hospital Allergy Unit.
- Rosemary Young – Accredited Practising Dietitian.
- Umina Child Care Centre
- Enmore Children’s Centre
- The Infant’s Home, Ashfield
- KU (Kindergarten Union) Children’s Services
- NSW Department of Community Services – Bankstown office
- NSW Department of Community Services – Children’s Services Directorate
- National Child Care Accreditation Council
- Anne McKenzie – Acting Clinical Nurse Consultant, Sydney South West Area Health Service, Early Childhood Health Services
- Jennifer Noller, NSW Oral Health Promotion Coordinator, Centre for Oral Health Strategy NSW
Introduction

Caring for Infants – Food and Nutrition for 0 to 1-year-olds in Long Day Care Centres (CFI) was originally funded by the Commonwealth Department of Health and Family Services in 1997. The contents of that edition of the book were derived from a research project on infant feeding practices in 64 long day care centres.

This revised edition of Caring for Infants updates the text in line with recent national and state policies and guidelines.

NOTE: throughout Caring for Infants the term ‘infants’ refers to children from birth to 12 months of age.

The Essential Role of Long Day Care Centres in Infant Feeding (and support for breastfeeding)

Infants grow and develop more rapidly than at any other time of life. This means that they have particularly high nutritional needs. Appropriate infant feeding practices are needed to support normal growth. Unsound infant feeding practices can result in nutrition problems that may have long-term effects.

Children in long day care can spend the majority of their day in care - up to five days a week. These children depend on these centres for a large part of their nutrition. Long Day Care Centres can support the healthy development of infants in their care by adopting the recommended infant feeding practices.

This edition of Caring for Infants incorporates the Infant Feeding Guidelines for Health Workers endorsed by the National Health and Medical research Council (NHMRC, 2003). It aims to provide long day care centres with some practical assistance in applying these guidelines. Caring for Infants is structured to follow the change in feeding as the newborn infant moves from a liquid only diet to a range of family foods at around 12 months of age. The recommendations reflect current national guidelines for infants as a group, however, there may be reasons (e.g. medical, cultural) why infant feeding choices vary. Long day care services can work with families to ensure everyone’s needs are met.

Breastfeeding is very important for infant nutrition. Australian and international health authorities recommend exclusive breastfeeding until about 6 months. At about 6 months it is recommended that you begin to offer solid food while breastfeeding is continued until 12 months or longer. Breastfeeding can continue to provide health benefits in the baby’s second year of life.

Long day care services have an important role to play in supporting mothers to breastfeed. Services can develop policies that encourage and support continued breastfeeding. Services can also provide comfortable surroundings in which the mother can breastfeed, or express breastmilk. They also have an important role in ensuring that families are provided with accurate nutrition and feeding information, and that this is reflected in the feeding practices of the centre.
Breastmilk and Other Drinks for Infants

Give Freely

Health authorities agree that breastmilk is best for infants and that breastfeeding is the preferred way to feed infants. Breastmilk is recommended until infants are at least 12 months old. However, formula should be given up to 12 months of age if the infant is not receiving breastmilk.

Once an infant is six months old, water can be introduced into their diet. Tap water is best, especially if it contains fluoride, which helps protect children’s teeth against decay.

Drinks not recommended

The following drinks are not recommended before the age of 12 months:

- Non-human milks: Cow’s milk, goat’s milk, sheep’s milk, other milks;
- Soy drinks (sometimes called ‘soy milks’);
- Rice drinks;

Cow’s milk, and other milks, are low in iron and their protein and sodium levels are also unsuitable for infants. In addition, children allergic to dairy foods usually need to avoid all types of milk other than human breast milk. Full cream, pasteurised, cow’s milk may replace breastmilk/infant formula as the main drink after the age of 12 months. There is no need to dilute or boil the cow’s milk when it is introduced after 12 months of age.

Soy drinks are not the same as soy infant formula, and should not be given before the age of 12 months. Soy drinks may not have the vitamins and minerals needed by infants, and many are too low in fat.

The following drinks are not recommended for infants or children:

- Coffee, tea, herbal teas;
- Fruit drinks and syrups promoted as vitamin C supplements (often blackcurrent, cranberry or rose hip).
- Soft drinks, cordials, mineral, spring waters.

Some drinks, like teas, contain natural chemicals that interfere with the absorption of nutrients. Some herbal teas also may contain harmful chemicals.

Caution

Fruit juices are not needed by infants. Breastmilk and infant formulas provide enough nutrients. It is important for infants to learn to eat fruits as foods, not to drink them. Fruit juices may cause diarrhoea in infants. Too much fruit juice often stops an infant from eating enough food, or drinking enough breastmilk or infant formula. Fruit juices given in feeding bottles may also contribute to tooth decay. If offering juice after 12 months, dilute to ¼ juice and ¾ water.
Safe Bottle Feeding

Guidelines for the safe feeding of expressed breastmilk or infant formulas in long day care centres

Transporting and storing bottles

- Label all bottles taken to the centre with the child’s name, the contents of the bottle, and the date the breastmilk was expressed or the formula was prepared.
- Store expressed breastmilk and infant formulas in sterilised bottles or containers. Use smaller (120mls) bottles for expressed breastmilk to reduce wastage.
- Cool all expressed breastmilk and infant formulas in the refrigerator before transporting. Expressed breastmilk may be frozen.
- Transport frozen breast milk, and cooled breastmilk or infant formula, in an insulated container with frozen “cooler bricks” (e.g. an esky with a freezer brick).
- Put all breastmilk and infant formula bottles in the refrigerator (or freezer) immediately on arrival at the centre.

Storage and use

- Any frozen breastmilk that has thawed (wholly or partially) during transport to the centre should be immediately stored in the centre refrigerator and used within 24 hours. Do not re-freeze breastmilk.
- Store all bottles in the back of the refrigerator where it is coldest. Do not store bottles inside the refrigerator door.
- Store the breastmilk or infant formula in the refrigerator for the day and throw out all leftovers at the end of the child care day.
- At home, frozen breastmilk can be stored for up to two weeks in a freezer compartment inside the refrigerator, or for up to 3 months in a freezer section of a refrigerator that has a separate door for the freezer.
- Once a bottle has been given to an infant, throw out any leftover breastmilk and infant formula after each feed. Do not put back in the refrigerator, and do not leave out at room temperature for later use.

Remember

1. Put a sign on the centre refrigerator asking parents and staff to put all the bottles in the main part of the refrigerator, not inside the door.
2. Breastmilk/infant formula are foods that must be stored cold. All cold food should be stored at 4°C or less, to limit the risk of food poisoning.
3. To ensure the refrigerator stays at 4°C or less, place a fridge thermometer in the middle of the main part of the fridge. Check the temperature regularly and adjust the fridge as needed.
Breastmilk and infant formula do not have to be warmed before feeding. However, warmed breastmilk or infant formula flows more easily and infants often prefer to drink it at room temperature. The best and safest way to warm bottles is by standing the bottle in warm water. It is not recommended to microwave bottles. Breastfed infants sometimes won’t take feeding bottles — expressed breastmilk can be given from a cup or with a spoon.

Thawing frozen breast milk

- Thaw frozen breastmilk in the refrigerator or, if necessary, by placing the bottle in cool or warm water (shake gently if the breast milk has separated).
- All frozen breastmilk thawed in cool/warm water should be used immediately. Throw out any left-overs as soon as the feed has finished.
- Frozen breastmilk left to thaw in the refrigerator can be kept in the fridge for that day. Once it has been taken out of the fridge for a feed, it should be used and any left-overs thrown out as soon as the feed has finished.

Warming breast milk and infant formula

Feeding an infant cold breastmilk or infant formula is not harmful, but drinks warmed to room temperature flow better from the bottle, and infants seem to prefer them at room temperature.

- Warm breastmilk and infant formula bottles by standing the bottle upright in warm water just before use. It is the safest way to warm the bottles.
- Bottle warmers can be used, but they must have a thermostat control. Bottles should only be warmed using this equipment for less than 10 minutes. Follow the manufacturer’s instructions.
- Avoid using the microwave to warm bottles.
- Shake the bottle and test some of the breastmilk/infant formula on the back of a washed hand to make sure it is not too hot.

Remember

1. Microwaving bottles of breastmilk/infant formula is not recommended for safety reasons — microwaves heat the milk unevenly and the milk may contain ‘hot spots’ that will burn an infant’s mouth.
2. Breastmilk should not be warmed in the microwave because important immune properties are destroyed.
Preparing Infant Formula

**STEP 1**
Wash hands thoroughly with soap and warm water. Dry using a hot air drier or disposable paper towel.

**STEP 2**
Sterilise all bottles, teats and any other equipment used to make up formula. Sterilisation can be by: boiling; anti-bacterial chemical solution: (e.g. Milton); steam sterilisers; microwave steam sterilisers (follow manufacturer’s instructions).

**STEP 3**
Measure into the bottle the required amount of boiled water which has been allowed to cool slightly (no less than 70°C). The water should not be left for more than 30mins after boiling. The water is always added before the formula powder.

**STEP 4**
Measure the required number of scoops into the bottle of water. Use only the scoop that comes with that tin, and read the instructions on the tin to find out how many scoops are needed for the amount of water being used. Use a clean knife to level off each scoop, but do not pack down the powder into the scoop.

**STEP 5**
Seal the bottle with a cap and disc, and shake gently to mix. There will be more formula than the original amount of water measured.

**STEP 6**
Cool feed quickly to feeding temperature by holding under running tap or place in a container of cold or iced water. Dry the outside of the bottle and test some of the formula on the back of a washed hand before feeding the infant to make sure it is not too hot.

**STEP 7**
If the formula is not used immediately, store in the back of the refrigerator until it is needed. Re-seal the opened can of formula powder and store it in the refrigerator as well – for nutrition and food safety reasons.

**STEP 8**
Discard any unused, made-up formula at the end of the childcare day.
Infants should be in a semi-upright or upright position when being fed. Where possible, bottlefeed in a quiet area. It is unsuitable to ‘prop’ feed infants.

Safe Feeding Positions

Suitable feeding positions

- On your lap – to the side or in front
- In a high chair
- In a stroller
- In a fraser chair

Problems that may occur because of unsuitable feeding positions

- **Tooth decay**
  Do not leave infants feeding from bottles while they are lying down. When lying down, the fluid stays in the mouth for too long and the baby may develop baby bottle tooth decay. Any drinks containing natural and/or added sugars (e.g. all milks, fruit juices, soft drinks, cordials) can cause this decay.
  Pacifiers/dummies should never be dipped in sweet foods such as sugar, honey or golden syrup.
  If infants are allowed to continue to suck on a bottle while they are sleeping other tooth problems can develop. This includes: the early loss of the baby teeth; new permanent teeth already decaying as they erupt; and the formation of the wrong shape dental arch with the need for future orthodontal treatment.

- **Choking**
  Infants who are fed while lying down are at a higher risk of choking.

- **Middle ear infections (Otitis media)**
  Allowing infants to bottlefeed while lying down may increase the risk of middle ear infections.

**Remember**

1. Do not give food or bottles to infants while they are in a bouncinette or lying on the floor.
2. If an infant falls asleep while being bottlefed always remove the bottle straight away.
3. Do not allow infants to take bottles to bed.
4. Infants benefit from being held while bottle fed. It provides important infant-carer contact and may also reduce the risk of ear infections.
Giving up the Bottle

Feeding bottles with teats are for use with breastmilk, infant formula or water. If other fluids are given use a feeding cup or a cup with a lid.

Infants can be encouraged to use a cup from 6 months of age. Choose a training cup with a lid to avoid spillage. Lightweight plastic trainer cups with a simple spout (not a teat or a valve-type spout) and two handles are practical choices. The cups need to be easily cleaned, and some cups with valve-type spouts are difficult to clean properly. Training cups should only be used temporarily, until infants can drink from a cup.

The importance of introducing a cup around 6 months of age in preparation for weaning from the bottle around 12 months

At around 12 months of age, children’s growth slows down substantially. As a result, they usually have smaller appetites than before. If they continue to use feeding bottles with teats they tend to drink too much milk over the day. This often results in a decrease in the amount of food eaten and the child being labeled as ‘fussy’ or ‘picky’ with their food.

Too much milk, combined with not enough solid food, increases the chance of iron deficiency. Iron deficiency can have a negative effect on the normal development of young children.

Early childhood caries (ECC) is a recognised problem for infants and toddlers, characterised by extensive and rapid tooth decay. Pacifying infants by giving them a bottle to suck on for long periods, or allowing them to fall asleep while continuing to feed from a bottle have been identified as a major cause of ECC.

The use of feeding bottles with teats is only recommended until the age of 12 months for developmentally able children. Between the ages of 6 and 12 months, infants are moving from liquid foods to solid family foods. Infants need to learn to eat their foods, not just drink them.
Readiness for Solid Foods

Around 6 months of age infants are ready to start solid foods because:

- They have greater energy and nutritional needs, and they may no longer be satisfied by the breastmilk or formula alone.
- They can hold their head and neck up straight, which allows foods to be easily and safely swallowed.
- Their feeding development has moved from sucking to biting with the disappearance of the ‘tongue-thrust’ reflex. When this reflex is still strong, infants tend to push out anything that is in their mouths using the tongue, rather than using the tongue to move the food to the back of the mouth for swallowing. When this reflex disappears, the tongue moves food to the back of the mouth for swallowing.
- Their digestive system and kidneys have matured enough to cope with solid foods.
- They are showing greater awareness and interest in food.

Introducing new foods to infants:

- Initially, wait a few days between each new food to make sure there is no reaction to the food.
- Several attempts are usually needed before a new food is eaten – persistence is important.
- Make sure the texture is suitable and avoid foods that can be inhaled and cause choking. Gagging is common in infants – especially when new food textures are introduced.
- Introduce food with a wide variety of colours and flavours before the age of 12 months. This will help the child accept a wider range of foods when they are older.
- Always allow infants to eat to satisfy their appetites.

Introducing solids too early can lead to:

- Increased risk of food allergies.
- Decreased breastmilk production.
- Increased exposure to germs.
- Increased load on the baby’s kidneys.
- Constipation, from poor digestion.
- A rejection of the spoon, which may be interpreted as rejection of food.

Introducing solids too late can lead to:

- Inadequate growth, as breastmilk/infant formula alone is insufficient after 6 months of age.
- Reduced protection from illnesses.
- Micronutrient deficiencies – especially iron and zinc.
- Delayed development of motor skills like chewing and reduced willingness to accept new tastes and textures.

Remember

It is important to start solids at the recommended age so that the infant eats enough dietary iron to prevent iron deficiency anaemia.
Foods and Drinks in the First 12 Months

Breastmilk and other drinks – Recommendations

<table>
<thead>
<tr>
<th>BIRTH</th>
<th>From 6 MONTHS</th>
<th>12 MONTHS</th>
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<tbody>
<tr>
<td>Demand-fed infants under 6 months of age usually do not need extra fluids.</td>
<td>Decrease the amount of breastmilk or infant formula as the amount of food eaten increases. By 8 months, give breastmilk or infant formula after food. Introduce a cup from around 6 months of age. Small amounts of cooled boiled water may be offered in a cup.</td>
<td>Change to cow’s milk. Use cup, not bottle. Toddler follow-on milks are not necessary.</td>
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</table>

Breastmilk or infant formula – continue until at least 12 months of age

Foods – Recommendations

Note: children from families where allergies are common may need to introduce solids differently. Contact the dietitians at the nearest children’s hospital or allergy unit for more information.

<table>
<thead>
<tr>
<th>From 6 MONTHS</th>
<th>From 8 MONTHS</th>
<th>From 12 MONTHS</th>
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<tbody>
<tr>
<td>Introduce solids</td>
<td>Infants become better at eating with practice. Most infants can now manage an increased variety of foods and textures. Include: • All fruits and vegetables (including salad). • Cereals (including breads, rice, pasta and noodles, breakfast cereals) preferably wholegrain. And then try: • Cheese, custard and yoghurt.</td>
<td>Do not give foods that may cause choking (see page 15). Children should be able to feed themselves under supervision. Can have regular child care centre meals at this stage.</td>
</tr>
<tr>
<td>For most babies good first foods are those which are soft and easily digested. Include mashed: • Vegetables (eg pumpkin, potato, sweet potato). • Fruits (eg cooked pears/apple, ripe banana). • Well cooked rice or rice cereal. And then include well cooked: • Minced, stewed or grated meat. • Fish (fresh or tinned) – remove bones. • Legumes (eg lentils). • Pasta. • Bread (toast fingers and rusks).</td>
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Make sure textures change from fine strain/purees within the first month.

1. fine mash
2. mash with small soft lumps
3. coarse mash/cut up foods by 12 months.
Families follow vegetarian diets for a variety of reasons. A well-planned vegetarian diet can meet the nutritional needs of a growing child. Some of these diets are high in fibre, and low in fat and iron, and care must be taken to ensure that a vegetarian infant’s diet has enough fat and iron.

**Vegetarian Infants**

Note: children from families where allergies are common may need to introduce solids differently. Contact the dietitian’s department at the nearest children’s hospital or allergy unit for more information.

<table>
<thead>
<tr>
<th>VEGETARIANS</th>
<th>VEGANS</th>
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<tbody>
<tr>
<td>(who may eat some animal products e.g. eggs, fish, yoghurt, cheese)</td>
<td>(vegetarians who eat no animal products)</td>
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<tr>
<td><strong>To drink:</strong></td>
<td><strong>To drink:</strong></td>
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<tr>
<td>Breastmilk or infant formula until at least 12 months.</td>
<td>Breastmilk or soy infant formula until at least 12 months.</td>
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<tr>
<td><strong>To eat:</strong></td>
<td><strong>To eat:</strong></td>
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</table>
| Introduce foods as per non-vegetarian children, but substitute all animal flesh foods with vegetarian protein foods (e.g. legumes like soy beans, baked beans and lentils; tofu). Ensure that the preparation of these foods includes the use of "plant-based cooking oils" e.g. olive, canola. Dairy foods are usually acceptable and can be introduced to eat around 8 months of age. | Any foods from any animals must be excluded. Acceptable foods usually include:  
- Iron-fortified rice cereal, fruits and vegetables.  
- Other cereal-based foods.  
- Custards made on soy formula.  
- Legumes.  
Ensure that the preparation of these foods includes the use of "plant-based cooking oils" e.g. olive, canola. It is recommended that vegans take vitamin B12 supplements – consult with the child’s parents and/or a dietitian.

**Remember**

Increase the ‘lumpiness’ of foods. Make sure textures change from fine strain/purees within the first month > fine mash > mash with small soft lumps > coarse mash/cut up foods by 12 months.
Food Textures

6 to 7 months

**Pureed texture.**
Suitable texture achieved by:
- Pushing the food through a wire mesh strainer with a spoon.
- Putting food through a baby food grinder (eg Mouli).
- Processing in a blender, food processor or with a bamix.

Food examples: rice cereal mixed with breastmilk, infant formula or boiled water, finely mashed ripe banana or avocado, peeled cooked pureed apple or pear, pureed cooked vegetables (e.g. potato, pumpkin, sweet potato).

7 to 9 months

**Finely mashed foods to mashed foods with soft lumps, and soft finger foods.**
Suitable texture achieved by:
- Mashing or cutting up foods.

Food examples: Mashed vegetables, minced meats, mashed fruits.

9 to 12 months

**Coarsely mashed foods with lumps, finely chopped foods, finger foods.**
Suitable texture achieved by:
- Mashing or cutting up food.

Food examples: bread crusts, toast fingers, cheese sticks, slices/pieces of lightly steamed vegetables, pieces/wedges of soft peeled fruits, small tender pieces fish/meat.
Food Allergies and Intolerances

Special diets for children with food allergies

Food allergies are immune reactions to the protein components of individual foods. The most common foods that can cause allergies (allergens) are: peanut and other nuts; egg; milk; fish; sesame; wheat and soy. Allergies often develop during the first year or two of life in children with eczema. Such children can develop acute, severe reactions, often the very first time they are exposed to the food.

Food allergies need to be taken seriously, even in children who have only experienced mild reaction in the past. Accidental exposure can cause a dramatic reaction, called Anaphylaxis, which can quickly become life-threatening, requiring emergency first aid treatment.

Because food allergies are more common in small children than in adults, all carers need to be able to recognise an acute allergy reaction. Typical symptoms are: rapidly spreading welts; swelling; breathing difficulties; and, in extreme cases, allergic shock and collapse.

Special diets for children with food intolerance

Food intolerances are caused by the irritant effects of certain food substances. These can be natural food components (e.g. salicylates, amines or glutamate (natural MSG)), or they can be additives (e.g. preservatives, colourings or flavourings). Reactions to these substances often develop over time from the cumulative effects of foods in the child’s diet.

Unlike allergies, food intolerances are rarely serious or life-threatening. In young children, symptoms include: irritable, hyperactive or erratic behaviour; sleep disturbance; upset stomach; loose motions; feeling sick; skin rashes; blocked nose; and fussy eating behaviour.

Because food intolerances act by chemical irritation of nerve endings, rather than through the immune system, regular allergy tests are of no value in identifying them. In the most obvious cases, parents usually know which foods make their child sick, and will be able to let carers know what the child should be fed. Often, however, systematic dietary testing under supervision of a specialist and an experienced dietitian is required.

Caring for a child with special dietary needs

1. Food Allergy

Management involves complete avoidance of the offending food(s). Listen to the parents concerns, and make sure they bring a specialist’s letter or certificate documenting which food(s) the child is allergic to. A poster with the child’s photograph and emergency treatment instructions can be displayed for staff, after obtaining written parental permission. All staff, as well as the parents of the other children, and where appropriate other children at the centre, should be made aware of the serious consequences of accidental exposure.
Policies should be put in place to ensure that the care environment is safe for the child. Carers and cooks may need to discuss with parents the different needs of a child. This may include:

- Providing substitutes to maintain good nutrition
- The need to be aware of the possibility of cross-contamination in the kitchen and eating areas
- Reading food labels for all ingredients used in recipes to be checked to ensure they do not contain traces of the relevant allergen.

Specific avoidance strategies should be developed for each allergen. For example, if the child has a peanut allergy there should be no peanuts or peanut butter in the care centre at any time, since contamination of the care environment with trace amounts can cause severe reactions.

Cooks should discuss appropriate recipes and menus with the parents. The child should be supervised during meal times and formula feeds should be clearly labelled. The child should only be given food and drinks that have been checked and approved by the parents. Special treats for birthdays and other celebrations should be supplied by the parents. Some helpful cooking hints and substitutes include: (T=tablespoon)

| 1 cup of milk | = 1 cup of soy drink (calcium fortified) | = 1 cup rice drink (calcium enriched) + 1T oil |
| 1 egg | = 1-2 teaspoons commercial egg replacer | = 1.5T water + 1.5T oil + 1 teaspoon baking powder |
| 1 cup flour | = 150g commercial gluten free flour mix |

For detailed information in managing food allergies refer to the educational DVD and companion information booklet “Dealing with Food Allergy” available from RPA Allergy Unit, telephone 02 9565 1464

**2. Food Intolerance**

There is no single “right” diet for children with food intolerances. Once a child’s intolerances are correctly identified, management involves a reduction in daily intake of the offending chemicals from all relevant food sources. Unlike allergies, complete avoidance of specific foods is rarely necessary.

The specific dietary changes required may be simple – for example, cutting out fruit juices or processed foods – or they may involve extensive modification of the child’s entire diet, depending on the degree of sensitivity. Carers should take note of the parents’ concerns and find out what kind of reaction might occur if the child consumes too much of the offending food substances.

Certain foods like milk (and other dairy products), soy or wheat may cause confusion, since they can cause either allergies or intolerances in susceptible children. In these circumstances carers should ask the parents to provide a medical certificate specifying the exact nature of the problem and the degree of care that needs to be taken with the relevant foods.
If a child’s diet is significantly restricted, or if there is a complex problem with food allergies as well as intolerances, the advice of a dietitian experienced in children’s nutrition should be sought to make sure the child’s nutritional needs are being met. Also check your Centre’s allergy and anaphylaxis policy.

Summary of what to do if a child at the centre needs a special diet

- Acknowledge the duty of care to provide a safe environment for the children and to administer first aid if necessary. This might include learning how and when to administer emergency adrenaline.
- Know which children are at risk, and which foods are involved.
- Display a photo of the child at risk in a prominent location if the parents agree to this.
- Take note of specialist medical advice in developing avoidance policies.
- Listen carefully to parents’ concerns – they are the ones who know most about the child’s problem.
- Never offer the child with food reactions any food unless it has been provided by the parents or been checked and approved by them.
- Ask parents to provide safe snacks and treats to enable the child to participate in birthday celebrations and other special occasions.
- Refer to your Centre’s allergy and anaphylaxis policy.
Choking-risk Foods

Minimise the possibility of choking at child care by:

- Always supervising children while they are eating and drinking, and making sure they are sitting down quietly.
- Checking all foods brought from home to make sure there are no potentially dangerous foods.
- Removing all objects and toys that are small enough to be swallowed away from areas within the centre that are accessible and used by children under the age of 3 years.
- Ensuring all staff are trained in the first aid procedures for treating children and infants who are choking.
- Avoid giving large chunks of any foods – cut into smaller pieces.

### Problem Foods

<table>
<thead>
<tr>
<th>Hard foods:</th>
<th>How to make the foods safer</th>
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<tbody>
<tr>
<td>e.g. raw carrot sticks, celery sticks, apple pieces</td>
<td>Steam vegetables until soft</td>
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<tr>
<td></td>
<td>Slice hard fruits into tissue-thin slices</td>
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<tr>
<td></td>
<td>Grate raw vegetables and hard fruits</td>
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<table>
<thead>
<tr>
<th>Foods with skins and/or bones:</th>
<th>Strain, puree, finely mash or squash cooked peas /diced beans</th>
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<tbody>
<tr>
<td>e.g. peas, beans</td>
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<tr>
<td>e.g. sausages, hotdogs, chicken, fish with bones</td>
<td>Remove the skin, gristle and bone pieces, and cut the edible portions into very small pieces</td>
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<table>
<thead>
<tr>
<th>Round foods:</th>
<th>Cut into very small pieces</th>
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<tr>
<td>e.g. grapes, cherry tomatoes</td>
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### Avoid

- Corn chips, potato chips
- Popcorn, lollies, bubble gum, nuts, jelly beans
- Seeds (e.g. watermelon, pumpkin, corn, sunflower)
- Raisins
- Dry, hard biscuits

The size, hardness and shape of some foods make them more likely than other foods to be inhaled and cause choking.
Food Hygiene and Safety Tips

Refrigerators

- Have separate refrigerators for food and the breastmilk / infant formula, if possible, to avoid cross-contamination.
- Make sure the refrigerators are kept at 4°C or less. Buy and install refrigerator thermometers for all refrigerators at the centre. These thermometers are often available from hardware and kitchen shops, and some supermarkets.
- Check the refrigerators’ temperature at least once a day, and adjust the refrigerator thermostat to keep the temperature at 4°C or less. As the refrigerator door is opened and closed through the day, the temperature inside the refrigerator warms and this needs to be monitored. Perishable foods must be kept at 4°C or less to reduce the rate of microbial growth and avoid food poisoning. For infants, breastmilk and infant formula are classified as perishable foods.
- If the refrigerator temperature goes up to 10°C or above, all made-up infant formula, expressed breastmilk and perishable foods needs to be thrown out. If the refrigerator temperature has risen to between 4°C and 10°C these items need to be used within 2 hours.
- Use probe thermometers to check food temperatures.

Meals/midmeals

- Do not allow children to share food, plates, cups or cutlery, as sharing can spread microbial contaminants.
- Always supervise children at meals/midmeals.
- Throw out all meals/midmeal leftovers of the food that has left the kitchen, never re-refrigerate for later use.
- To prevent transfer of allergens: use non-latex gloves (e.g. vinyl gloves); encourage everyone to wash their hands before and after all meals; use disposable cleaning cloths.

Storage of perishable foods

Modern refrigerators cope well if small amounts of hot foods are put into them. If there is a large amount of hot food, the covered food may be left to cool for a short period before refrigerating. However, it is better to divide large amounts of hot foods into smaller containers (no more than 5 cm deep) and refrigerate as soon as possible. Seal containers well. Freeze foods that are to be kept for a longer time.

Remember

1. Put refrigerator thermometers in all refrigerators at the centre
2. Check that the refrigerators are at 4°C or less during the day
3. Cool foods in the refrigerator
4. Use probe thermometers to check food temperatures
Applying the Australian Dietary Guidelines for Children and Adolescents for Infants in Long Day Care Centres

The Dietary Guidelines for Children and Adolescents in Australia are shown in bold below with some accompanying notes on how to apply in long day care centres:

“Encourage and support breastfeeding”

Centres can implement nutrition policies that encourage breastfeeding/breastmilk as the standard way to feed infants. Ensure all staff are aware of the advantages of breastfeeding, and that they are trained in the safe storage, handling and transport of expressed breastmilk. Centres can provide quiet areas where mothers can breastfeed and/or express breastmilk in a private, hygienic setting.

“Children and adolescents need sufficient nutritious foods to grow and develop normally”

- Growth should be checked regularly for young children.
- Physical activity is important for all children and adolescents.

Centres should allow children to eat amounts of food that satisfy their hunger, and provide ‘seconds’ of food if a child is still hungry. Encourage infants by 8 months to eat their solid foods before they are given their breastmilk or infant formula. It is easy for children to fill up on drinks and not eat their foods. Older infants can’t grow properly on drinks alone, it is necessary for them to eat solid foods.

“Enjoy a wide variety of nutritious foods”

Centres can recommend that solid foods be commenced, on consultation with the family, at the age of around 6 months, starting with rice or rice cereal, vegetables and fruits. Variety is important from the moment infants are introduced solids. Make sure foods from all the food groups (breads and cereals, dairy foods, meats/meat alternatives, vegetables and fruits) have been introduced by 12 months of age. There is no particular order in which to introduce these, but it is recommended that foods containing iron be introduced as soon as possible after 6 months of age.

Infants may need to be offered a new food up to 15 times before the new food is accepted.

“Children and adolescents should be encouraged to”:

- Eat plenty of vegetables, legumes and fruits.
- Eat plenty of cereals (including breads, rice, pasta and noodles) preferably wholegrain.
- Include lean meat, fish, poultry and/or alternatives.
- Include milks, yoghurts, cheese and/or alternatives.
  - Reduced fat milks are not suitable for young children under 2 years because of their high energy needs, but reduced-fat varieties should be encouraged for older children and adolescents.

The National Health and Medical Research Council of Australia endorsed the Australian Dietary Guidelines for Children and Adolescents. The Guidelines focus on the development of healthy eating from birth to 18 years of age.
• Choose water as a drink.
  – Alcohol is never suitable for children.

Centres should use wholemeal breads, biscuits and breakfast cereals on their menus. There is no need to use special high fibre foods (e.g. bran cereals). Vegetables and fruits should be included every day on the centre menu. Offer legumes on the menu (e.g. lentils, baked beans, soy beans).

Use breastmilk or infant formula until 12 months of age. Have cooled, boiled water available as a thirst quencher for infant over the age of 6 months. Introduce solids as recommended, and make sure infants are not routinely given low-fat dairy foods to eat. Introduce a variety of solids by 12 months of age. Introduce iron-containing foods by 7 months of age. Good sources of iron are lean red meats, other meats and seafood. Legumes (e.g. baked beans, lentils), and wholemeal cereal foods also have some iron. These ‘plant’ foods should be eaten with a vitamin C-rich food or drink so that more of the iron can be absorbed.

“and care should be taken to”:

• Limit saturated fat and moderate total fat intake
  – Low fat diets are not suitable for infants.

• Choose food low in salt.

• Consume only moderate amounts of sugars and foods containing added sugars.

The centre should offer full cream milk products to infants but avoid regular inclusion of high fat foods like hot chips and sausages. Use mono or polyunsaturated oils in foods cooked at the centre (e.g. sunflower oil, olive oil).

Do not add salt to the food at the centre, either during cooking or at the table. Use salt-free recipes. Choose reduced-salt or no added salt commercial foods for the centre. Limit the use of high salt additives (e.g. soy sauce, stock cubes, stock powder). If salt is used, iodised salt is recommended.

Avoid using sticky sweet foods (e.g. honey and chocolate/hazelnut spreads), and fruit confectionery (e.g. fruit ‘straps’) for infants. Do not regularly use sweet spreads like jams, and avoid recipes containing large amounts of added sugars. Avoid cordials, fruit juice drinks, fruit drinks, soft drinks, flavoured mineral and spring water drinks, and “vitamin C, fruit drinks and syrups” because of their sugar contents. Honey is not recommended for infants because it can contain bacteria that cause botulism – a severe type of food poisoning.

“Care for your child’s food: prepare and store it safely”

Centres need to make sure that all staff involved in any food preparation and/or handling are following appropriate food safety procedures. Provide all staff with food safety training. Make sure that all storage areas are hygienic and that all refrigerators and freezers are kept at the recommended temperature for the safe storage of perishable foods.
Iron-containing Foods for Infants

The following categories are based on the amount of iron in the food, how well it is absorbed by the body, and the amount an infant is likely to eat of a particular food.

**Good sources of iron**
- Beef
- Chicken
- Lamb
- Pork
- Fish (fresh/canned)
- Liver/kidneys
- Breastmilk and infant formula before 6 months of age

**Medium sources of iron**
- Beans (e.g. kidney beans, soy)/legumes
- Cereals with added iron
- Tofu

**Low sources of iron**
- Rice
- Pasta
- Dried fruit
- Green vegetables
- Bread
- Other breakfast cereals

**Food containing very little iron**
- Milk/dairy foods
- Eggs
- Other vegetables
- Other fruit
Sample Infant Nutrition Policy

Goal

To apply current national infant feeding recommendations that:

- Support and encourage breastfeeding alone as the normal and most beneficial way for feeding an infant for the first 6 months
- Introduce appropriate foods around six months
- Support mothers to continue to breastfeed until at least 12 months, or longer if both mother and baby wish, while offering appropriate complementary foods
- Where breastfeeding is dis-continued before 12 months, substitute with a commercial infant formula
- Prevent Early Childhood Caries (ECC)

Strategies

- Provide a suitable place within the centre where mothers can breastfeed their infants or express breastmilk.
- Encourage breastmilk/infant formula as the main drink until 12 months of age.
- Warm expressed breastmilk or infant formula in warm water, not the microwave.
- Label all infant drink bottles stored at the centre with the contents, name of child and date of preparation/expressing.
- Store all infant drink bottles in the coldest part of the refrigerator, not inside the refrigerator door.
- Have infant formula preparation instructions visible in the preparation area, or if not, staff should always follow the instructions on the can of formula.
- Introduce solid foods around 6 months of age.
- Start with rice or rice cereal, pureed vegetables or fruits, prepared in a culturally appropriate manner.
- Ensure that a variety of iron containing foods are introduced as soon as possible after 6 months of age
- Recognise that as an infant develops, food textures must change.
- Be aware that some foods may cause choking, and prevent infants and other children from having access to these foods.

Transport, store and prepare all foods hygienically to avoid the risk of microbial contamination and food poisoning. Any solid foods heated in microwave ovens must be carefully checked for “hot spots” before being served.
Long Day Care Centre Food and Menus for 0 to 12-month-olds

How can centres provide for the nutritional needs of the infants in their care?

- Have a planned written centre menu, and note on the menu when other foods are needed for infants. Plan the alternative infant food/meals as part of the menu (see pages 22 & 23 for suggestions).

- When preparing foods from the main menu that are suitable for infants, save time and effort by cooking extra food. Puree, mash or finely chop some of this and freeze it for later use. To reduce wastage, freeze the food in ice-cube trays. Once the food is frozen, remove it from the trays and put into plastic bags, or sealed containers, and store in the freezer. Make sure that all foods stored in the freezer are labelled and dated.

- Divide large quantities of cooked foods into separate small, sealed containers and refrigerate to cool. Once cooled, freeze in the sealed container, and again make sure the food has been labelled and dated before being stored in the freezer.

- The safe storage time for frozen foods depends on the type of food. The freezer information booklet contains recommendations for safe food storage times (for centres that cannot find the booklet, most companies are happy to provide replacement booklets on request).

- Thaw food in the refrigerator. Solid foods (not breastmilk/infant formula) may also be thawed in the microwave – using microwave-safe containers. All food thawed/warmed in the microwave must be checked for ‘hot spots’ before being served. Stir the food thoroughly, and test its temperature by spooning a small amount onto the back of the washed hand. The food may need to be left for a few minutes to cool down. However, warming bottles of breast milk/formula is not advisable as this can lead to ‘hot spots’ which can burn the infant’s mouth.

Remember

Be familiar with the centre menu and plan alternative infant food/meals in advance for the times when the centre meals are not suitable for infants.

Infants may be in care for most of their waking hours in a day, and they need to be provided with the full range of nutrients from breastmilk/infant formula and solid foods – especially after 6 months of age. If infants are given only vegetables as their main meal because the centre meal is unsuitable, then they will not be getting all the nutrients they need from food.

In particular, their iron intake will likely be too low.
Changing Centre Menus to Suit 6 to 12-month-olds

The menus below are from the “Caring for Children” nutrition resource for child care services, and examples are adapted for 6 to 12-month-olds. Drinks are not specified as infants should be given breastmilk/infant formula as needed.

Centre Menu

M. Tea:  •  Raisin Toast  
•  Fruit smoothie

Dinner:  •  Potato & sausage pie  
•  Fruit slaw  
•  Stewed apple  
•  Jelly  
•  Custard  
•  Water

A. Tea:  •  Wholemeal crispbread & spread  
•  Fruit

MODIFIED 6 to 12-month-olds menu

M. Tea:  •  Rice cereal or plain toast fingers  
•  Fruit – puree/mash/cut up

Dinner:  •  Frozen mince dish  
•  Mashed potato  
•  Puree/mashed vegetables  
•  Stewed apple  
•  Custard

A. Tea:  •  Breakfast biscuits & milk  
•  Fruit (puree/mash/cut up)

Centre Menu

M. Tea:  •  Toasted muffin & cheese  
•  Fruit  
•  Milk

Dinner:  •  Lentil Soup  
•  Crusty French bread  
•  Fruit platter  
•  Water

A. Tea:  •  Wholemeal crispbread & vegemite  
•  Carrot sticks  
•  Milk

MODIFIED 6 to 12-month-olds menu

M. Tea:  •  Rice cereal or toast muffin fingers  
•  Fruit – puree/mash/cut up

Dinner:  •  Puree or mashed lentils and vegetables with rice  
•  Fruit (puree/mash/cut up

A. Tea:  •  Rusks  
•  Grated carrot
Centre Menu
M. Tea: • Breakfast biscuit & golden syrup
• Orange segments
• Milk
Dinner: • Pasta & creamy salmon sauce
• Salad
• Peaches
• Yoghurt & rice dessert
• Water
A. Tea: • Raisin bread
• Vegetable platter
• Milk

MODIFIED 6 to 12-month-olds menu
M. Tea: • Breakfast biscuits & milk
• Fruit – mash/cut up
Dinner: • Salmon – puree/mash
• Pasta – mash/cut up
• Vegetables – mash/cut up
• Peaches – mash/cut up
A. Tea: • Yoghurt & rice dessert
• Vegetables – grated/mash

Centre Menu
M. Tea: • Toast & spread
• Fruit
• Milk
Dinner: • Saucy beef & vegetable loaf
• Jacket potato
• Yoghurt
• Jelly
• Water
A. Tea: • Wholemeal crispbread & spread
• Fruit
• Milk

MODIFIED 6 to 12-month-olds menu
M. Tea: • Rice cereal or plain toast fingers
• Fruit – mash/cut up
Dinner: • Minced beef
• Mashed potato
• Vegetables – mash/cut up
• Yoghurt
A. Tea: • Plain biscuits
• Fruit – mash/cut up

Centre Menu
M. Tea: • Raisin toast
• Fruit
• Milo
Dinner: • Cold chicken & salad
• Wholemeal bread roll
• Ice cream cone
• Water
A. Tea: • Wholemeal crispbread & cheese & tomato
• Fruit
• Milk

MODIFIED 6 to 12-month-olds menu
M. Tea: • Rice cereal or plain toast fingers
• Fruit – mash/cut up
Dinner: • Hot chicken (pureed or minced) & rice
• Vegetables – mash/cut up
• Ice cream
A. Tea: • Breakfast biscuits & milk
• Fruit – mash/cut up
Key Resources


- Australian Breastfeeding Association. www.breastfeeding.asn.au


- NSW Health Breastfeeding Your Baby and Starting Family Foods publications


- Childrens’ Hospital Westmead Fact Sheets. www.chw.edu.au/parents/factsheets


- Food Standards Australia New Zealand (FSANZ). Food safety fact sheets. www.foodstandards.gov.au


- Healthy kids website www.healthykids.nsw.gov.au


References


