MINISTRY OF HEALTH
MANATŪ HAUORA

New Zealand Government

Reducing food-related choking for babies and young children at early learning services

December 2020

Contents

Citation: Ministry of Health. 2020. *Reducing food-related choking for babies and young children at early learning services*. Wellington: Ministry of Health.

Published in December 2020
by the Ministry of Health
PO Box 5013, Wellington 6140
New Zealand

ISBN 978-1-99-002970-7 (online)
HP 7526

MINISTRY OF HEALTH
MANATŪ HAUORA

This document is available at health.govt.nz

Introduction

Babies and young children have an increased risk of choking on food. This is because they have small air and food passages. They are also learning to move food around in their mouths and learning how to bite, chew and grind food. It takes some years for children to master these skills and many don't truly master chewing until four years of age.[1]

This advice is based on the Ministry of Health's recommendations www.health.govt.nz/food-related-choking, but has been adapted for licensed early learning services such as early childhood education services, ngā kōhanga reo and certificated playgroups. The original advice is for parents and caregivers who have a good awareness of a child's stage of development, and who can closely supervise a child. This close relationship and degree of supervision is not often possible in early learning services, so the advice here is more prescriptive to manage the risk involved.

1 The ages in this advice are based on the expected range of development in small children. If a child has a developmental delay, suspected or diagnosed, discuss food requirements with the child's parents or caregivers.

Recommendations

While it is not possible to remove all risk, it can be reduced by following the recommendations based on these three areas:

1. a safe physical environment when eating
2. first aid
3. providing appropriate food.

1 A safe physical environment when eating

Take the following actions to provide a safe physical environment for babies and children while they are eating:

- ☑ **Supervise** babies and children when they are eating.
- ☑ Have an appropriate **ratio of adults to children** at mealtimes.
- ☑ **Minimise distractions** and encourage children to focus on eating.
- ☑ Ensure there is a **designated time** where children sit down to eat, rather than continuous grazing.
- ☑ **Ask children not to talk** with their mouths full.
- ☑ Have children **sit up straight** when they are eating. Sitting down and maintaining good posture are essential for safe eating and drinking. Do not allow walking, running or playing while children are eating.
- ☑ **Place food directly in front of the child.** This helps to prevent them twisting around to the left or right, which can cause them to lose control of the food in their mouth.

2 First aid

Some teachers and kaiako must know what to do if a baby or child is choking.

✅ Teachers and kaiako need to know **choking first aid and cardiopulmonary resuscitation (CPR).**

For more information see the *Well Child/Tamariki Ora Programme Practitioner Handbook* available on the Ministry of Health website (www.health.govt.nz).

3 Providing appropriate food

Research shows that some food poses a greater risk of choking on. To reduce the risk, early learning services should remove high-risk foods and change the texture or size and shape of others.

High-risk food to exclude

Exclude the following foods. They have the highest risk of choking on, and are either not practical to alter, have no or minimal nutritional value, or both:

❌ whole nuts or pieces of nuts

❌ large seeds, like pumpkin or sunflower seeds

❌ hard or chewy sweets or lollies

❌ crisps or chippies and corn chips

❌ hard rice crackers

❌ dried fruit

❌ sausages, saveloys and cheerios

❌ popcorn

❌ marshmallows.

High-risk food to alter

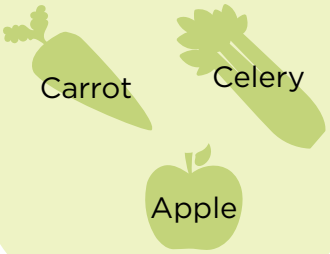
The following pages show which foods to alter, why and how to do it for different age groups. This advice is for children aged 1–6 years of age.

Information on appropriate food textures for newborns to one-year-olds is consistent with the Ministry of Health complementary feeding advice. See Eating for Healthy Babies and Toddlers https://www.healthed.govt.nz/resource/eating-healthy-babies-and-toddlersng%C4%81-kai-t%C5%8Dtika-m%C5%8D-te-hunga-k%C5%8Dhungahunga

How to alter high-risk food to lower its choking risk

Small hard food

For example, pieces of raw:



Choking risk:

Difficult for young children to bite through and break down enough to swallow safely. Pieces can become stuck in children's airways.

Options for tamariki of all ages:

- Grate raw carrot, apple or celery; **or**
- Spiralise to create vegetable or fruit spirals; **or**
- Slice thinly using a mandolin or vegetable peeler; **or**
- Cook until soft[2] and cut into strips (around 4–6cm long*) that can be picked up with one hand.

*You can use the ruler on the back page as a guide

For tamariki aged 4–6 years you can also:

Cut raw vegetables or fruit into sticks (around 4–6cm long*) that can be picked up with one hand.

2. 'Soft' means the food can be easily squashed between your thumb and forefinger, or on the roof of your mouth with your tongue.

Small round or oval food

Fruit with stones, for example:

Peaches

Plums

Fruit with large seeds or large pips, for example:

Watermelon

Papaya

Small round foods, for example:

Grapes

Cherry tomatoes

Large berries

Raw green peas

Choking risk:

Small round foods can lodge in children's airways.

Options for tamariki of all ages:

Remove the stone and chop to an 8mm x 8mm size or smaller* (about half the width of a standard dinner fork).

Remove large seeds or large pips.

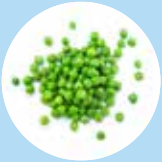
Quarter or finely chop grapes, large berries and cherry tomatoes to an 8mm x 8mm size or smaller*.

Cook raw or frozen green peas and squash with a fork.

For tamariki aged 4–6 years you can also:

Cut into sticks (around 4–6cm long*) that can be picked up with one hand.

Halve or quarter grapes, large berries and cherry tomatoes.

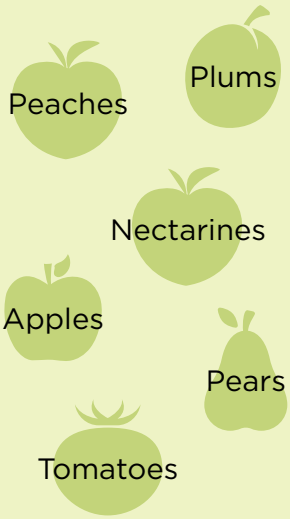


Whole cooked green peas are acceptable

*You can use the ruler on the back page as a guide

Fruit with skin

For example:



Choking risk:

Fruit skins are difficult to chew and can completely seal children's airways.

Options for tamariki of all ages:

Remove the stone and chop to an 8mm x 8mm size or smaller* (about half the width of a standard dinner fork).

Grate raw apple or pear, **or** slice thinly using a mandolin or vegetable peeler.

Alternatively, cook until soft[3] and cut into strips (around 4–6cm long*) that can be picked up with one hand.

*You can use the ruler on the back page as a guide

Options for tamariki of all ages:

Finely chop tomato to an 8mm x 8mm size or smaller*.

For tamariki aged 4–6 years you can also:

Cut raw fruit into sticks (around 4–6cm long*) that can be picked up with one hand.

3. 'Soft' means the food can be easily squashed between your thumb and forefinger, or on the roof of your mouth with your tongue. Tinned fruit (in natural juice and drained) is acceptable.

Food with skin or leaves

For example:

Chicken

Lettuce and other raw salad leaves

Spinach

Cabbage

Choking risk:

Food skins and leaves are difficult to chew and can completely seal children's airways.

Options for tamariki of all ages:

Remove skin from chicken.

Finely slice or chop salad leaves, lettuce, spinach and cabbage.

Compressible foods

For example:

Pieces of cooked meat

Choking risk:

Can fit into the shape of the airway and get wedged tightly.

Options for tamariki of all ages:

Cook meat until very tender; **and**

Mince, shred or chop meat to 8mm x 8mm sized pieces*.

For tamariki aged 4–6 years you can also:

Offer thin strips of meat (around 4–6cm long*) that can be picked up with one hand or with a fork.

Food with bones

For example:

Choking risk:

Small bones present a choking risk.

For tamariki of all ages:

Remove all bones.

Fibrous or stringy food

For example:

Choking risk:

Fibres make it difficult for children to break up the food into smaller pieces.

Thick pastes

For example:

Choking risk:

Can fit to the shape of a child's airway or stick to side of airway.

For tamariki of all ages:

Use smooth thick pastes sparingly, spreading thinly and evenly onto bread.

For tamariki of all ages:

Peel the skin or strong fibres off where possible; **and** slice these foods thinly across the grain of fibres.

Background information and references

The Ministry of Health's current advice on preventing choking in young children is available at www.health.govt.nz/your-health/healthy-living/food-activity-and-sleep/healthy-eating/food-related-choking-young-children

Archanbault Nicole and Coceani Paskay Licia. 2019. Unsafe chewing: choking and other risks. *The ASHA Leader*, 1 November 2019.

Baig A, Thomas H, Britigan D et al. 2019. Food choking hazards in toddlers: An interventional study. *International journal of paediatrics, neonatology and primary care*. 1 (1): 11-16 doi:10.18689/ijpn-1000104.

Be Smart, Don't Choke. British Columbia Children's Hospital/University of British Columbia Initiative URL: https://dontchoke.ubc.ca (accessed 4 November 2020).

Chapin M, Rochette L, Annest J et al. 2013. Nonfatal choking on food among children 14 years or younger in the United States, 2001–2009. *Pediatrics* 132: 2.

Committee on Injury, Violence, and Poison Prevention. 2010. Prevention choking among children. *Pediatrics*. 125(3): 601–607 doi.org/10.1542/peds.2009-2862.

Dodrill P. 2016. Treatment of feeding and swallowing in infants and children. In M Groher, M Crary (eds). *Dysphagia: Clinical management in adults and children* (2nd ed. pp. 325–348). St. Louis, MO: Elsevier.

Dodrill P. 2016. Typical feeding and swallowing development in infants and children. In M Groher, M. Crary (eds). *Dysphagia: Clinical management in adults and children* (2nd ed. pp. 253–268). St. Louis, MO: Elsevier.

Edwards DK, Martin SM. 2011. Protecting children as feeding skills develop. *Perspectives on swallowing and swallowing disorders*. 20:30 doi.org/10.1044/sasd20.3.88.

Foltran F, Ballali S, Passali F et al. 2012. Foreign bodies in the airways: A meta-analysis of published papers. *International Journal of Pediatric Otorhinolaryngology*. 76S, S12–S19.

International Dysphagia Diet Standardisation Initiative (IDDSI)

- https://iddsi.org/IDDSI/media/images/ConsumerHandoutsPaed/FAQ_When_to_change_from_child_to_adult_L5andL6_consumer_handout_30Jan2019.pdf
- https://iddsi.org/IDDSI/media/images/ConsumerHandoutsPaed/7_Regular_Paeds_consumer_handout_30Jan2019.pdf

Lorenzoni G, Azzolina D, Baldas S, et al. 2019. Increasing awareness of food-choking and nutrition in children through education of caregivers: the CHOP community intervention trial study protocol. *BMC Public Health* 19:1156.

Lumsden A and Cooper J. 2017. The choking hazard of grapes: a plea for awareness. Archives of diseases in childhood.102: 473–474. doi:10.1136/archdischild-2016-311750.

Mohammad M, Saleem M, Mahseeri M et al. 2017. Foreign body aspiration in children: A study of children who lived or died following aspiration. *International Journal of Pediatric Otorhinolaryngology*, 98: 29–31. doi:10.1016/j.ijporl.2017.04.029

Nichols B, Visotcky A, Aberger M et al. 2012 Pediatric exposure to choking hazards is associated with parental knowledge of choking hazards. *International journal of Pediatric Otorhinolaryngology*. 76(2): 169–173. doi: 10.1016/j.ijporl.2011.10.018

Ministry of Health. 2008. *Food and Nutrition Guidelines for Healthy Infants and Toddlers (Aged 0–2): A background paper (4th ed) – Partially revised December 2012*. Wellington: Ministry of Health.

Ministry of Health. 2012. *Food and Nutrition Guidelines for Healthy Children and Young People (Aged 2–18 years): A background paper. Partial revision February 2015*. Wellington: Ministry of Health.

Sidell D, Kim I, Coker T et al. 2013. Food Choking hazards in Children. *International journal of Pediatric Otorhinolaryngology*, 77(12): 1940–1946. doi:10.1016/j.ijporl.2013.09.005.

The Susy Safe project overview after the first four years of activity. (2012). *International Journal of Pediatric Otorhinolaryngology*, 76(S1): 3–11. https://doi.org/10.1016/j.ijporl.2012.02.003


cm 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29