

Table 20: Characteristics and examples of foods that pose a high choking risk for children under five years

Food characteristics	Food examples	Choking risk	Changes to reduce risk
Small hard foods	Nuts Large seeds Hard dried fruit Pieces of raw carrot, celery or apple Food that break into hard sharp pieces eg, crisps, corn chips and rice crackers Unpopped popcorn husks	Difficult for children to bite through and break down enough to swallow safely. Pieces can become stuck in children's airways	Avoid giving whole nuts, large seeds or hard dried fruit to children under the age of five Use thinly spread smooth peanut butter instead of whole or chopped nuts Carrot, apple and celery can be either cooked until soft or finely grated
Small round or oval foods	Grapes, berries, cherry tomatoes Raisins/sultanas Fruit with stones and large seeds or pips, eg, watermelon, small stone fruits Peas Lollies/sweets	Foods with these qualities can lodge in children's airways Children do not have the ability to chew small round hard, chewy or sticky lollies/sweets	Grapes, berries and cherry tomatoes can be halved or quartered or chopped smaller Soak raisins/sultanas to soften and cut in half if large Remove stones from fruits Peas can be squashed with a fork Small round hard or chewy and sticky lollies/sweets should not be given to children under the age of three years
Foods with skins or leaves	Chicken, Sausages, saveloys, 'cherrios', frankfurters etc Stone fruits (eg, plums, peaches, nectarines) Apples and pears Tomatoes Lettuce and other raw salad leaves. Spinach, cabbage	Food skins are difficult to chew and can completely seal children's airways	Remove or peel skins before serving Chop up (to at least size of child's small finger nail and add to mashed food Remove stones from fruit Finely chop salad leaves Cook spinach and cabbage until soft and chop finely

Food characteristics	Food examples	Choking risk	Changes to reduce risk
Compressible foods	Sausages, saveloys, 'cherrios', frankfurters, hotdogs etc Pieces of cooked meat Marshmallow Popcorn Chewing or bubble gum	Can conform to the airway shape and get wedged tightly	As above, remove skins before serving Cook meat until very tender Chop finely (to at least size of child's small finger nail) and add to mashed food Marshmallows and popcorn should not be given to children under three years Do not give chewing or bubble gum
Thick pastes	Chocolate spreads Peanut butter	Can form to the shape of a child's airway and stick to its side	Use thick pastes sparingly and spread evenly onto bread
Fibrous or stringy foods	Celery Rhubarb Raw pineapple	Fibres make it difficult for children to break up the food into smaller pieces	Peel the skin/strong fibres off celery and rhubarb Slice these foods thinly across the grain of fibres

Based on information from Altkorn et al 2008, Altmann and Ozanne-Smith 1997, Byard et al 1996, Committee on Injury, Violence, and Poison Prevention 2010, Goren et al 2005, Hayman and Dalziel 2010, Karatzanis et al 2006, Morley et al 2004, Ozdemir et al 2005.

One of the most important choking prevention measures is for carers to stay with and supervise young children while they are eating. Young children should learn not to play or run around while eating (Hayman and Dalziel 2010). Establishing a routine where young children sit while eating is recommended.

Parents and caregivers should never resort to forcing children to eat and should request a feeding assessment through their general practitioner for a child who repeatedly gags or chokes on age appropriate foods. An oral health assessment via the community oral health service may be needed if there is the child has discomfort with eating.

Although all care can be taken to prevent food related choking incidents they may still occur. Due to young children's greater vulnerability to accidental injuries it is recommended people caring for children, including parents, teachers and child care providers should learn cardiopulmonary resuscitation (CPR) and choking first aid for children (Ozdemir et al 2005, Committee on Injury, Violence, and Poison Prevention 2010).

For the key messages on minimising the risk of food-related choking in young children see section 4.4.4 Creating a safe, positive feeding environment.

For more information on food related choking see the Ministry of Health website: www.health.govt.nz

For information on choking first aid and cardiopulmonary resuscitation (CPR), see your *Well Child Tamariki Ora Health Book* or the Ministry of Health website www.health.govt.nz