The INSPIRE Project

How to prepare first foods for your baby – workshop manual





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The INSPIRE Project

The 'INSPIRE' Project is proudly funded and supported by the Queensland Government.

The INSPIRE (Intensive Nutrition Support Program Inspiring Regional Educators and Families) Project is a three year project which will provide nutrition education and remote support services for staff working with, and families of, children aged 0-5 years.

The project is being delivered by Nutrition Australia Qld in the Department of Education regions – Far North Qld and Darling Downs South West.

The two key target populations are:

- Families and Carers
- Professionals
 - Child health nurses, ECEC staff, those working in the ECEC industry (for example at the Early years Places), Playgroup facilitators, other health workers (community nurses, allied health)

Professionals within the region are eligible to receive an e-newsletter for the life of the project which will include targeted information on nutrition that they can use with families. See our contact information below if you would like to be included on the newsletter list.

Nutrition Australia Qld can offer support to families and professionals working with children aged 0-5 years in the Darling Downs South West and Far North Queensland regions. Please contact us via <u>foodfoundations@naqld.org</u> or call 07 3257 4393 for more information.

About this Manual

Many first time parents are looking for support and information they can trust when it comes to preparing the foods their baby needs. They look online, to family, friends or early years professionals for advice. In our experience, many parents lack confidence in preparing first foods, and may not understand feeding development.

The aim of this manual is to equip you, an early years professional, with evidence based information on infant feeding and a guide as to how to run a practical workshop for families on prepaing first foods. This manual includes information on the when, why, how and what of introducing first foods, practical tips for preparing different foods, common FAQ's parents have and a session plan for a preparing first foods workshop.

Please note that this is general information and advice that we are giving to families and it is not designed for providing clinical advice. If there are issues families raise that are specific to the health of their child, we recommend referring them to their GP, Child Health Nurse or Dietitian for further advice and support.

Introducing first foods

Introducing first foods is an exciting time for both families and infants to explore and experiment with food. What a child learns during this stage of life, has an impact on future eating behaviours and food preferences. It is important to provide a variety of nutritious foods, starting with iron rich foods and age appropriate textures.

As guidelines and recommendations around this have changed over the years, when and how to introduce first foods has become a common point of confusion for parents. The current evidence base that is recommended to use is the Australian Infant Feeding Guidelines, of which you can access a <u>summary</u> and a more comprehensive guide in the <u>Information for health workers (2012)</u>. In this manual we will cover the basics, so we recommend having a look at these documents if you have further questions that are not answered here.

When to start first foods

From birth to around six months of age, breast milk or a commercial infant formula provides all the nutrients that a growing infant needs. From around 6 months of age, infants are developmentally ready to start eating food and need additional nutrients for their growing bodies. Before 4 months of age, infants digestive systems are not fully developed and providing food too early can take away from the important nutrients found in breastmilk or formula. At around 6 months of age an infants iron stores are depleted and their iron requirements can not be met by breastmilk or infant formula alone, so they need to start getting iron from solid foods. Click here to see a video on starting first foods.

Signs that an infant is ready to start first foods are:

- They are around 6 months of age
- Is beginning to show interest in food and the environment
- Has an increased appetite
- Good head and neck control
- The ability to sit up almost on their own
- They are able to move food from the front to the back of the mouth and swallow and have a chewing action

If a child is not showing signs of readiness at or around 6 months it is important to seek advice from a qualified professional (eg. child health nurse or GP).

Order for introducing new foods

Previous guidelines have been quite prescriptive about the order in which foods should be introduced. This changed with the 2012 Infant Feeding Guidelines, which state that, "The introduction of solid foods at around 6 months should start with ironcontaining foods, including iron-enriched infant cereals, pureed meat, poultry and fish, or cooked tofu and legumes. Vegetables, fruits, and dairy products such as fullfat yoghurt, cheese and custard can then be added".

After the introduction of iron – rich foods, there are no recommendations regarding the order in which foods should be introduced. Click <u>here</u> for a fact sheet on iron rich first foods.



Rate of introducing new foods

The current guidelines suggest that foods can be introduced at a rate that suits the infant. There are no recommendations on the number of new foods that can be introduced at one time.

How much to feed

The recommended dietary intake for children aged 7 to 12 months are shown in the table below. Remember, it may take some time to reach the recommended amount, but by 12 months, a child should be offered a wide variety of food which is enjoyed by the rest of the family. This is to be used as a guide, not a prescriptive diet to follow. Be guided by the infant's cues for hunger or fullness (i.e. turning head away from spoon when full or not interested).

Food	Serve size*	Serves a day
Vegetables and legumes/beans	20g (1 tbsp)	1 ½ - 2
Fruit	20g (1 tbsp)	1/2
Grain (cereal) foods	40g bread equivalent (e.g. 4-6 tbsp cooked rice/pasta)	1 1/2
Infant cereal (dried)	20g (1 tbsp)	1
Lean meat, poultry, fish, eggs, tofu	30g (1 ½ tbsp)	1
Breast milk or formula	Dependent on mum & baby	600 mls/day of formula
Yoghurt/cheese or alternatives	20mls yoghurt or 10g cheese	1/2

*20g is equivalent to 1 tablespoon and 5g is equivalent to 1 teaspoon.

An allowance for unsaturated spreads or oils or nut/seed pastes of 4-5g (approx. 1 tsp) per day is allowed, however whole nuts & seeds are not recommended at this age as they may cause choking. See page 13 for more information on choking.

Foods and drinks not suitable for babies

Foods with added sugar, salt and honey as well as foods that are a choking risk including whole nuts, hard pieces of fruit and vegetables and popcorn should be avoided. Honey is to be avoided as there is an increased risk of botulism in infants.

To keep tap water safe, it needs to be boiled and then cooled when giving to infants under 12 months of age. Small amounts of cow's milk can be used in the preparation of solid foods but not given as a main drink to children until 12 months of age. Beverages such as tea, coffee, soft drink, juices and cordials should not be given to infants.



Introducing allergen containing foods

Allergen containing foods including cooked egg, fish and nut pastes can be introduced at the same time as other foods – around 6 months. The current Infant Feeding Guidelines tell us this is the same for infants with a family history of allergies. However, if parents are concerned they should seek advice from a dietitian or appropriate health professional. See page 13 for more information on allergies.

Transitioning through textures

Starting first foods at around 6 months and the progression through different textures is not only important nutritionally, but also helps with the beginning of speech, teeth and jaw development. Infants learn to suck, bite, lick and chew through the actions of the mouth, lips, tongue, cheeks and jaw. The guidelines state that:

- From 6 months of age, infants should be offered purees and then mashed or lumpy foods, progressing to minced and chopped foods
- By 8 months most infants can manage 'finger foods'
- By 12 months, infants can have nutritious choices from the foods eaten by the rest of the family and should be consuming a wide variety of foods

The guidelines also state that, continued exposure and opportunity to sample a wide variety of healthy foods help achieve adequate nutrient intakes and healthy diets in childhood. These healthy eating habits are likely to continue through to adulthood and may assist in promoting better food choices later in life.

Progressing through textures

- 1. Puree (around 6 months)
- 2. Mashed \rightarrow Minced \rightarrow Chopped (between 6-8 months)
- 3. Finger Foods (by 8 months)
- 4. Family Foods (by 12 months)



Parents and child's roles in feeding

Establishing a clear feeding relationship between parent/caregiver and child from the outset can help a child to develop a positive relationship with food, accept a wider variety of foods, reduce mealtime stress and help manage fussy eating behaviours as a child grows. It is helpful for parents/caregivers to know what their role is and what the role of their child is. It can be difficult, but it is important to trust that children can listen to their tummy and know how much they need to eat.

In feeding, it is the parents role to decide on the routine of **when** meals will be, **what** food is offered, and **where** food is eaten. It is the child's role to decide **how much they will eat or if they will eat**. Aim to establish a feeding environment that does not place pressure on children to eat and ensure that children are never forced to eat food they do not want to. When the feeding roles get confused it can lead to mealtime power struggles. Feeding is a relationships between parents and children where parents listen to their childs cues and adjust their routine accordingly. The <u>Picnic Project</u> do a great job at explaining feeding roles.

Practical tips for first foods

When in comes to the practicalities of preparing appropriate textured first foods, there is some key information to share with families that can empower them to feel confident to feed their baby.

We have developed a series of videos on preparing first foods, where we give a practical demonstration and tips on how to prepare first foods. These can be accessed on the <u>NAQ Nutrition Youtube</u> channel, or click on the links below to view them. You may like to view these in preparation for delivering your own workshop.

- Welcome to our series on preparing your baby's first foods
- First foods What's in your fridge?
- First foods What's in your pantry?
- First foods preparing veggies
- <u>First foods preparing fruit</u>
- First foods using canned foods
- First foods using leftovers
- <u>First foods texture progression</u>
- <u>First foods preparing iron rich foods</u>

Our tips for preparing first foods:

- Introduce different tastes, textures and consistencies as a child grows. Foods can be introduced in any order and at a rate that suits the child.
- Homemade is best cooking first foods from fresh ingredients wherever possible, with no added sugar or salt.
- Using commercial frozen or canned foods is okay sometimes as long as they don't have added sugars or salt.
- Cook more of what you're having at mealtimes and freeze it for your baby, being mindful to not add salt or sugar to foods you will be feeding your infant.
- Fill ice cube trays with pureed food, freeze and then put in to zip-lock bags, making sure to record the date and type of food being frozen.
- Do not feel you need to buy fancy equipment to make purees. This phase of feeding does not last long. A bar mix, blender, or even just a fork or potato masher can be used to modify foods to an appropriate texture.
- If a food does not have enough fluid to modify it to an appropriate texture, a small amount of breastmilk, infant formula, cow's milk or cooled boiled water can be added.
- Cow's milk can be added in small amount to babies foods from around 6 months of age, but should not be introduced as a drink until 12 months of age.
 Use full fat cows milk for children under 2 years of age.
- Meat can be a particularly difficult texture to modify however is a great source of iron so is imporant to include in an infants diet. We recommend adding liquid

to assist with pureeing, cooking until tender, or combining it with some puree vegetables to avoid a grainy texture.

- Meat can be microwaved, poached, steamed, or slow cooked before pureeing. Roast meat may also be suitable, however avoid any gristle.
- Aim to have a few nights a week where a main family meal contains an iron rich food. Keep some aside and puree for your infant.
- It is good to serve different foods separately so that children can learn to taste the different flavours of food, however it is also fine to offer combinations of foods as well.
- Herbs and spices are safe to add to infants food
- Have some pantry staples available such as peanut butter, microwaveable rice, tins of tuna, baked beans, or pasta.
- Boiled, cooled water should be offered throughout the day as a drink and a cup can be introduced at around six months of age.

6 – 12mths old	Early stages of introduction	Later stages (e.g. over 8 mths)	Later stages (e.g. over 9mths)	
Breakfast	4 tsp dry infant rice cereal, prepared as per instructions, & 1 tsp pureed peaches	1 ½ breakfast wheat biscuits or ¼ cup dried oats made into porridge, with breast milk or formula or full cream milk	4 tsp dry infant rice cereal, prepared as per instructions, with 2 tsp canned fruit (in unsweetened juice)	
Morning tea	2 tsp (heaped) plain unsweetened yoghurt with 1 tsp pureed pear / apple	4 tsp dry infant rice cereal, prepared as per instructions, with 2 tsp mashed banana	1 slice toast with 2 tsp low salt baked beans	
Lunch	3 tsp pureed meat & 2-3 tsp pureed vegetables (e.g. carrot and/or pumpkin) & 4 tsp pureed cooked rice	3 tsp finely chopped meat, tofu or fish & 2-3 tsp mashed pumpkin & peas 2 tsp plain unsweetened yoghurt	3 tsp chopped chicken with 2-3 tsp zucchini & chopped green beans with ¼ cup of cooked pasta shapes	
Afternoon tea	2 tsp pureed vegetables (e.g. peas, green beans &/or pumpkin) with ½ slice toast (or equivalent) as finger food	¹ ⁄ ₂ slice toasted wholemeal bread with 2 tsp mashed avocado	1 stick of cheese (10g)	
Dinner	3 tsp pureed meat or beans/legumes with 2-3 tsp mashed vegetables (e.g. pumpkin, sweet potato, carrot) & 4 tsp pureed cooked rice	3 tsp beef mince cooked in 2-3 tsp tomato based sauce (made with tomato, onions, pureed carrots and broccoli)	2-3 tsp mashed sweet potato, carrot & cauliflower with 3 tsp cooked fish (with bones removed)	
Throughout the day	Breast milk or 600 mls formula through the day	Breast milk or 600 mls formula through the day	Breast milk or 600 mls formula through the day	

Sample Menu for children aged 6-12 months of age

Common FAQ's

Should I consider baby led weaning?

Baby-led weaning (BLW) involves infants feeding themselves hand-held foods instead of being spoon-fed by an adult from 6 months old, for example offering a steamed piece of carrot they can pick up and put in their mouth rather than carrot puree. It is important that babies are still exposed to a variety of textures, like soft and lumpy foods or minced foods so that they can learn how to master the different textures.

Baby led weaning may help with children being more accepting of different foods as they grow up, and allows them to self regulate their intake. With baby led weaning, the infant determines how much they will eat or whether they will eat. The infant should guide the feeding journey based on their ability, so parents should observe their child and see if these textures are working for them or not. Some babies can manage ok with finger foods from the start, while others may find this texture a challenge. There are recommendations for when to transition through textures, however not all babies are the same and may take a little longer to master different textures.

Are squeezy food pouches ok to use?

Colourful squeezy food pouches with built in feeding tips are popular among busy families. There are pros and cons to using these products. They key benefits are that they are convenient, often do not require refrigeration, there is no food preparation required and no utensils are needed to eat them. There are however several cons to using these products, including:

- There are often misleading nutrition claims on the packages such as the amount of vegetables they contain. A lot of squeezy foods have a high proportion of fruit compared to vegetables which gives them a sweeter flavour and makes them more palatable and popular with children.
- Depending on the brand they can contain high amounts of sugar
- Regular use may delay development of oral motor skills as the textures are usually always smooth and only require the skill of sucking. In contrast, when varied textures are provided, no biting, licking or chewing is needed – all of which are important in development of muscles in the mouth, tounge and jaw.
- Regularly offering these foods may also decrease oppportunities for shared mealtimes or eating family meals.

'Squeezy' foods are okay for occasional use when travelling or when you do not have enough time to prepare meals. They are **not** a replacement for healthy family meals. Mealtimes for young children are important for nourishment and for learning how food looks, smells and feels. When 'squeezy' foods replace real food, part of this learning is lost.

When should I introduce allergen containing foods?

Food allergy occurs in about 2-5% of young children, but is mostly outgrown by 3 -5 yrs of age. Allergen containing foods can be introduced at around 6 months of age and should not be delayed unless an allergy or intolerance has already been diagnosed. ASCIA is the best source of information on managing the introduction of allergen containing foods. See this <u>Parent Information</u> handout for more detailed guidance.

What is the difference between choking and gagging?

Choking occurs when food or objects become stuck in the throat, or when an object, food or liquid is inhaled into the lungs. It can be life threatening and babies and toddlers are at risk because they tend to put everything in their mouths, because they can bite better than they can chew, and their swallowing reflex is not fully developed. Gagging is quite different to choking and is not a cause for alarm. It is common for young children to "gag" with coughing or spluttering whilst learning to eat and manage different textures. This is a normal part of the child learning to manipulate new textures around their mouth.

Foods that are a choking risk include nuts, popcorn, chips, lollies, hard fruit or vegetables such as carrot or apples, whole grapes or whole cherry tomatoes. To reduce the risk of choking for children under 3 years of age, it is recommended to:

- Always supervise babies and young children closely when they are feeding
- Children should be alert and sitting upright to eat
- Children who are running or moving whilst eating are more likely to choke
- Avoid giving food to a child who is upset they are more at risk of choking
- Avoid giving hard pieces of food to infants until they are ready to chew food. Steam, grate or mash hard foods instead.
- Cut up vegetables and fruit into small pieces. Remove skins, pips and seeds from fruit and vegetables if they are large, hard or tough to chew
- Remove bones, skin and gristle from meat, poultry and fish
- Avoid propping up bottles to feed an infant not under your direct supervision
- Don't put babies to bed with a bottle

 Make sure infants are 'ready' to eat before starting solids i.e. they have good head control, can sit upright and are easily able to express their desire to stop eating

What should I do if my child is constipated?

With the introduction of solid food to their diet, an infants poos will become firmer, and constipation can become an issue. The most common reason for constipation is often that they are not getting enough fluids in their diet. It is recommended to offer some extra water between normal meals, or diluted fruit juice (1 part prune juice: 3 parts water). Also encourage additional serves of fruit and vegetables that will help to soften their stool. For more tips and information see this article from <u>Pregnancy, birth & Baby</u>.

How can I manage picky eating and introducing my child to new foods?

Fussy or picky eating is a natural part of feeding development in children. Children's taste preferences can change and it can take multiple times of trying a food before they accept it. It is important that parents and caregivers role model positive eating behaviours, provide positive reinforcement, and that children are never forced to eat food they do not want to. When introducing new foods to children, there are some simple steps that can be followed to encourage acceptance. These questions will help children to familiarise themselves with a 'new food' and hopefully be more willing to try a 'new food'.

- 1. Take the food in your hands how does it feel?
- 2. Bring it up to your nose how does it smell?
- 3. Touch it to your lips how does it feel?
- 4. Hold it between your teeth how do you feel?
- 5. Lick it how does it feel? How does it taste?
- Take a piece the size of your fingernail and place it on your chewing teeth (molars), chew and swallow (at this point take a piece of the food and demonstrate placing it between your back teeth on one side and your chewing motion)
- 7. Take another piece the size of your fingernail and place it in your mouth as you normally would (chew and swallow)

We want trying new foods to be a positive experience, so if a child is stressed about continuing with any of the stages, this process can be stopped and tried again later. If in doubt seek the help of an appropriate health professional, such as an Accredited Practising Dietitian.

Preparing First Foods Workshop

This session plan gives you an outline of how we would run a first foods workshop. It is not the only way to run this kind of workshop though! Think about the families you will be talking to and use foods that are familiar to their context. You can run this workshop in full or adapt it to suit your audience.

Goal:

To increase the skills and knowledge of families around starting first foods so that they have confidence to feed their baby nutritious food for healthy growth and development.

Learning outcomes:

- To know when to start a child on solid food and the signs of readiness
- To know what foods to feed an infant and what foods to avoid
- To know the recommendations around introducing allergen containing foods
- To understand the importance of transitioning through different textures of food before 12 months of age
- To know the basics of how to prepare first foods equipment and methods
- To have an increased confidence in preparing first foods

Equipment needed:

- Bowls
- Forks & spoons
- Masher
- Bar mix & attachments / nutribullet / blender
- Jug for water

- Chopping board & knife
- Cleaning equipment paper towel, cloths, detergent, teatowel, sanitiser
- Box for transporting
- AV equipment if showing videos



Ingredients

The listed ingredients were purchased in a Cairns supermarket for approximately \$43. This provided numerous options of foods to use in a demonstration. Adapt the ingredients you purchase based on your allocated budget.

- Apple
- Bananas
- Strawberries
- Mango
- Butternut pumpkin
- Potato
- Broccoli
- Avocado
- Tinned corn kernals 125g
- Pasta
- Microwaveable rice
- Full cream milk
- Shredded cheese x small packet
- Shredded chicken
- Tuna in springwater 95g can
- Fresh beef bolognaise sauce



*Please note: brands or products available may vary among regions. NAQ Nutrition does not promote or endorse the use of any specific brands.

Before the workshop:

- Read through this manual to make sure you have a clear understanding of the topic so that you can communicate messages clearly and accurately.
- Print and prepare any handouts for participants.
- Choose which foods you would like to demonstrate and purchase.
- Write your own session plan with an outline of the food combinations you plan to prepare and equipment you will need.
- Prepare any ingredients in advance if needed chop (peel if needed) and steam in the microwave or cook in a saucepan until they are softened. Eg. Pasta, rice, apple, pumpkin, potato and broccoli.
- Store all ingredients in containers, refrigerate and keep cool during transit to workshop venue.
- Set up workshop space clean and sanitise benches, get all equipment out and ready to go on bench. Set up ingredients, keeping high risk ingredients (meats and dairy) in fridge until time of workshop.
- Set up chairs for participants so that they can see the demonstration bench.

Session Plan (45 minute workshop):

Time	Content
Introduction	Provide some background to the purpose of the workshop. "This workshops aim is to give you some practical tips and
5 minutes	skills in how to prepare first foods for your baby. There is a lot
	of information that parents are bombarded with about what
	foods they should and shouldn't be giving their child. And as
	a new parent, this is a new area for you to navigate".
	Find out which stage parents are at with feeding their baby –
	age of child, have they started first foods, what they want to take away from this workshop etc.
Background	Go through key information about first foods from pages 5-8
theory	 of this guide When to start solids and why (signs of readiness)
10-15 minutes	 What to feed and what to avoid
	 Introducing allergen containing foods
	- Texture transition
	You may choose to also go through some of this information during the practical demonstration section.
Video	Show two videos from NAQ Nutrition First Food series to give
	participants an idea of what foods they can look for in their
5 minutes	fridge or pantry that would be suitable to prepare for their infant.
	 First foods – What's in your fridge?
	 First foods – What's in your pantry?
Practical	Outline the different foods and equipment you will be using
demonstration	during the demonstration. Provide a few different examples
	of food combinations, and demonstrations of how to use
15 minutes	different equipment. Examples of foods/ food combinations
	to demonstrate:
	- Apple or banana
	- Rice, corn and chicken
	- Potato, broccoli and cheese
	- Pasta and mince bolognaise
	- Tuna and avocado

	Using your equipment, demonstrate how to modify the texture of foods to suit stages of feeding development: - Puree food (around 6 months) - Mashed lumpy food (between 6-8 months) - Finger foods (from 8 months) You may need to add full cream milk or cooled boiled water to acheive a suitable consistency. Go through preparing first food tips on pages 9-10 as you are demonstrating the different foods.
	 For example: 1. Use a fork to chop a banana into pieces as finger food. Then, use the fork to mash it to a lumpy texture, then mash further until a smooth puree consistency. 2. Chop chicken into finger food sized pieces and serve with rice and drained corn, then chop chicken more finely and use a fork to mash with rice and corn. If too tough, the chicken and corn may need to be blitzed briefly. Then use bar mix to puree chicken and rice together to serve, adding a little milk or water to reach a smooth consistency.
	Throughout the demonstration allow the participants to come and have a look at the different food textures.
Conclusion	Ask participants if there is one thing they will take away from the workshop. Make a record of this for your evaluation.
5 minutes	Allow time for any additional questions.
	If there are any questions that you do not have the experience to answer, refer on to a health professional for further advice, or if it is a general question you can send it to <u>foodfoundations@naqld.org</u> .



Draft Session Plan

Preparing First Foods Worksop (30-45 min)

Facilitator: _		
Venue:		

Date:_____

Equipment needed:

Ingredients: _____

Time	Content
Introduction	
min	
Background	Key messages:
min	
111111	
Practical	Foods / food combinations to demonstrate:
demonstration	
min	
Wrap up	
min	

For more information

- NAQ nutrition INSPIRE resources (scroll down to relevant section)
- The INSPIRE Project
- Infant Feeding Guidelines Summary
- Infant Feeding Guidelines: Information for Health Workers
- Eat for Health Australian Dietary Guidelines
- ASCIA guidelines for infant feeding and allergy prevention
- <u>Children's Health Queensland HHS</u>
- Growing Good Habits
- <u>Picnic Project</u>
- <u>Pregnancy Birth Baby</u>
- <u>Raising Children's Network</u>