



Metabolic.ie

National Centre for Inherited Metabolic Disorders

Weaning Your Baby on a Diet for



Galactosaemia



Acknowledgements

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Introduction

Weaning (spoon feeding) is the process of gradually introducing solid food into your baby's diet in addition to your baby's soya infant formula.

Weaning is a time during which your baby will learn important skills. These include self-feeding and development of muscles that are important for speech. It is a step-by-step process to introduce your baby to foods, new textures and flavours.

Our team of dietitians are here to support you along the way. Weaning will be discussed at your child's outpatient clinic appointments. If you have any questions between appointments, you can phone our dietetic team.



When do I Start?

The World Health Organisation (WHO) recommend starting spoon feeds around the age of 24 weeks/ 6 months. However, weaning can begin as early as 17 weeks/ 4 months if your baby is showing appropriate signs of readiness to wean.

Signs of readiness to wean

- Sitting with support and has good head control
- Coordination between eyes, hands and mouth-can look at food, pick it up and put it in their mouth
- Can swallow food instead of spitting it all back out

Signs often mistaken as readiness to wean

- Chewing fists
- Wakening for additional feeds at night-time
- Wanting extra milk feeds now and then

Reasons not to wean before 17 weeks

- Your baby's head control may not strong enough
- Your baby's gut and kidneys will not be mature enough
- There is an increased risk that your baby will develop coeliac disease or type 1 diabetes later in life

Reasons not to delay weaning beyond 26 weeks (6 months)

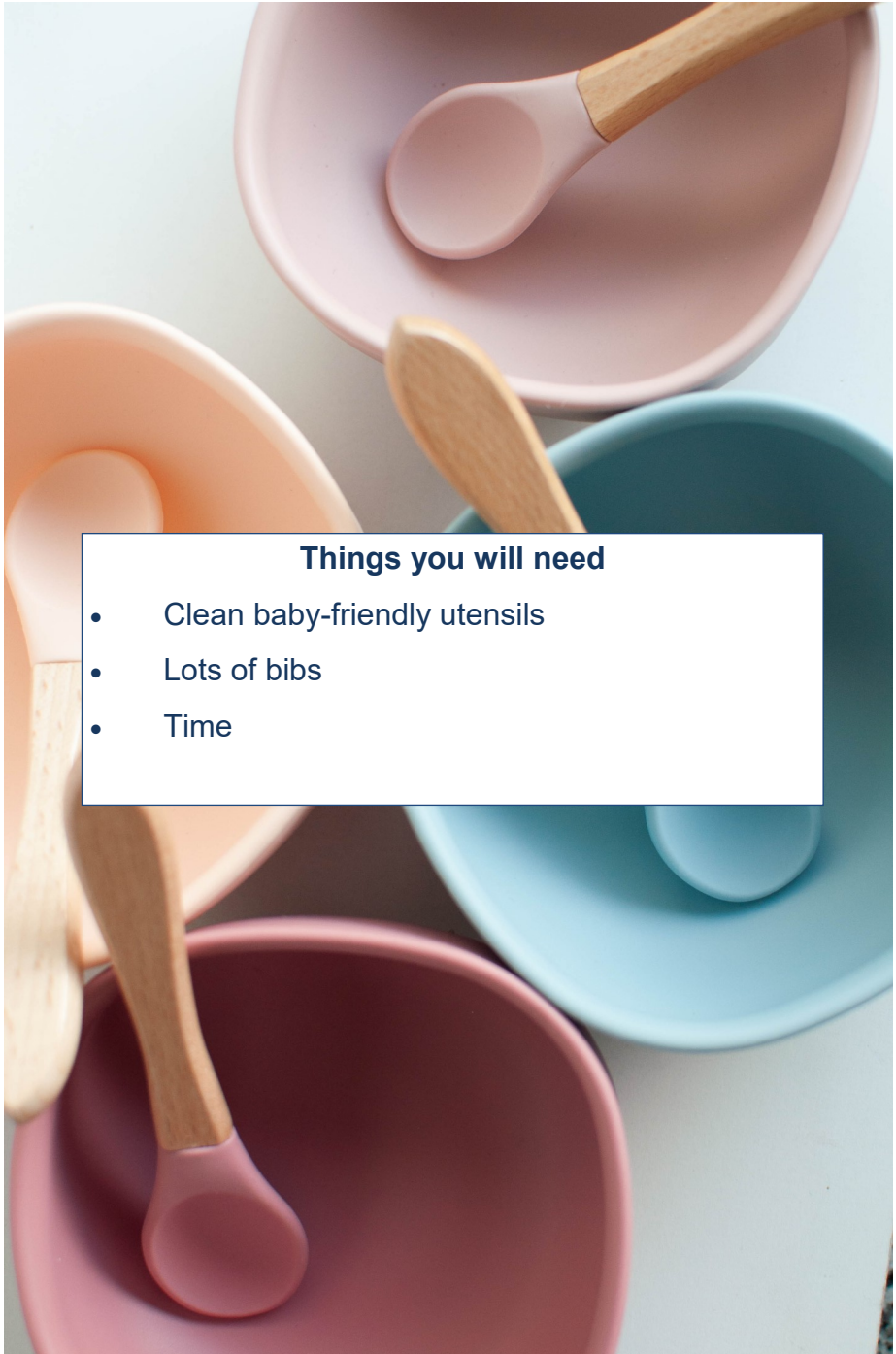
- Your baby's soya formula alone will not provide enough nutrition
- Delayed development of muscles for speech
- Your baby is more likely to be a fussy eater

Getting Started

- Choose a time to begin when both you and your baby are relaxed, for example when older children are at school or at the weekend when you may have extra help
- Pick a time when your baby is hungry and alert, but not very hungry
- Ensure your baby is in a well-supported seated position
- Choose a suitable food to begin with—see pages 9-10
- Allow your baby to play with food and make a mess
- Your baby may only eat a small amount to begin with, you can gradually build up the amount from there. Go at your baby's pace, do not rush
- Avoid wiping your baby's mouth while they are eating
- If the food is rejected after a few attempts, just try again at a different time of the day or the next day
- Always stay with your baby when they are eating

Top Tip

Encourage your baby with plenty of eye contact, smiles and lots of chatting. Involve your baby in family mealtimes and eat together as a family as often as you can

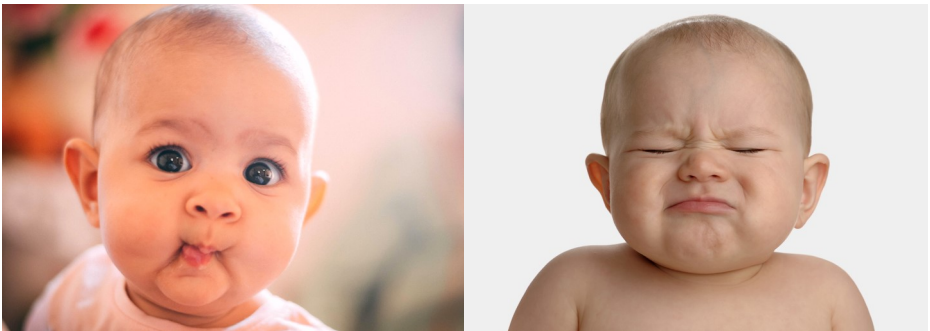


Things you will need

- Clean baby-friendly utensils
- Lots of bibs
- Time

What to expect

The first spoon feeds of solid food will taste and feel very different to soya milk from a bottle. Your baby will probably make some odd facial expressions or spit out the food when trying a new taste for the first time. They are simply surprised by the unfamiliar taste. They are also getting used to having a spoon in their mouth.



- Offer them some of their usual soya milk feed then offer spoon feed
- Allow your baby time to get used to the taste and texture
- Don't 'force feed' or rush them
- Give them the rest of their usual milk feed when they have had enough food if they are hungry

What to Feed First

Now is the time to introduce lots of different vegetables and fruit into your baby's diet. This is when your baby is open to accept a variety of foods with different textures and flavours.

Babies have a natural desire for sweet tastes; it is better to introduce vegetables first starting with the less sweet ones, followed by introducing different types of fruits.

Vegetables*

Avocado, Asparagus, Aubergine, Beetroot, Broccoli, Green beans, Cauliflower, Cabbage, Celery, Courgette, Kale, Leeks, Potato, Spinach, Turnip

then








Butternut squash, Carrot, Parsnip, peas, Sweetcorn, Sweet potato, Swede, cucumber, green beans, sugar snap peas, pumpkin, celeriac, peppers

Fruit*

Apples, pears, peaches, strawberries, blueberries, tomatoes, olives, raspberries, nectarines, oranges, grapes, mangos, plums, banana and melon

At first, offer one vegetable or fruit at a time and then mix flavours when your baby is taking bigger quantities. You can offer these foods more than once a day to help your baby to get used to new foods.

Sample first week

| | | |
|-------|-------------|--|
| Day 1 | Avocado |  |
| Day 2 | Asparagus |  |
| Day 3 | Turnip |  |
| Day 4 | Courgette |  |
| Day 5 | Cauliflower |  |
| Day 6 | Broccoli |  |
| Day 7 | Potato |  |

For babies who start weaning from 17 weeks

How to prepare vegetables & fruit

- Steam/boil vegetables or fruit until tender and soft*. Some ripe fruits do not need cooking
- Mash with a fork to remove large lumps and form a semi-smooth texture-cool boiled water or soya infant formula can be added to achieve this.

* do not add salt



Top Tip:

Homemade foods is often cheaper, more nutritious and tastier than baby food jars. For example you cook a batch of fruit or vegetables and freeze them in small amounts.

As your baby gets used to solid food, begin to add less liquid to the meals and mash to a lumpier consistency. Consider adding grated fruit or vegetables and giving soft finger foods from 6 months (see page 18).

Did you know?

To help your baby to learn, keep offering new flavours over a few weeks. They may need to try a new food **10-15 times** before they accept it.

Top tips for food preparation:

- Consider using ice cube trays or zip lock bags for batch cooking
- To add grip to finger foods, leave skins on such as banana and avocado
- If re-heating frozen batch cooked foods, make sure it is fully defrosted and heated thoroughly—watch out for hot spots if microwaving





Gagging verses choking

Gagging is a normal reflex which babies have as they learn to eat and swallow. This helps prevent choking.

If your baby gags, stay calm and tell them it is okay. Try not to panic. Gagging brings food forward into your baby's mouth so that baby can chew it more, or try to swallow a smaller amount. Choking is where food obstructs the airway.

Choking is silent whereas gagging is not

Please familiarise yourself with this guidance <https://www2.hse.ie/wellbeing/child-health/choking-strangulation-and-suffocation-in-babies-and-children/choking-in-babies-under-1-year.html> and discuss with your public health nurse.

Food preparation tips to reduce choking risk:



Baby-led weaning

Baby-led weaning means offering your baby only finger foods and allowing them feed themselves from the start.

You can offer a range of small finger-sized pieces of food. This can be introduced from 6 months.



Some parents prefer baby-led weaning to spoon feeding while others combine both. There is no right or wrong way to introduce solid foods. Discuss with your dietitian the best option for your baby.

Messy food play

Messy food play is a really important part of your child's development and will help them accept new foods. This should be an enjoyable stage to share together.



Moving On

Your baby will move through the stages of weaning naturally at their own pace. You can encourage and guide them by:

- Offering new foods and flavours regularly - adding mild spices and herbs for flavour
- Moving to lumpier textures and harder finger foods as they can manage
- Letting your baby feed themselves
- Trying to eat together as a family. Aiming to have baby eating the family meal by around 9 months
- Continue to offer your baby soya infant formula until they are 1 year old. Unsweetened unflavoured fortified plant based milk such as soya milk that has a minimum of 60kcal per 100ml is recommended from 1 year old. It can be used in cooking from 6 months of age.



Progressing with Textures

Once your baby can manage smooth textures, the introduction of mashed/lumpier texture foods is advised.

- Avoid large chunks of food such as raw carrot sticks, apple chunks, whole beans, dried fruits, whole nuts, whole grapes, cherry tomatoes
- Make the finger foods slightly bigger than the baby's hand to help with grip



Soft/mashable foods

Vegetables—cooked and mashed with a fork

e.g. carrots, parsnip, courgette, butternut squash, cauliflower, green beans, broccoli, pepper, swede, potato, butterbeans, chickpeas, kidney beans, sweetcorn

Fruit—raw and mashed with a fork

e.g. avocado, melon, mango, kiwi, banana, peach, pear, raspberries

Offering finger foods to your baby once they are 6 months old gives them the opportunity to practice their motor skills and experience new tastes. Try these suggestions for some easy and nutritious finger foods.

Finger foods/chopped foods

- Prepared foods; grated suitable cheese, grated soft fruit (apple, pear) or vegetables eg parboiled carrots, sweet potato, parsnip sticks, broccoli and cauliflower florets
- Soft ripe fruits e.g., melon, orange, apple, pear, peach, kiwi
- Batons of suitable cheese*.
- Cooked pasta chopped up
- Avocado slices
- Fingers of boiled potatoes/sweet potato
- Mini Bread sticks or crispbread
- Toasted bread cut into small bites

* Ask your dietitian for a list of suitable cheeses

Food refusal

Food refusal is a normal part of the weaning process. This can be stressful but remember it is just a phase



What about Allergens?

Common foods associated with childhood allergies include:

- Gluten (*from wheat, barley, rye, oats*)
- Peanuts (*whole or chopped nuts should not be given to children under 5*)
- Egg
- Fish

It is advised that these foods are introduced at around 6 months of age, as delaying the introduction could increase the risk of developing an allergy to that food.

Once successfully introduced try to include in your child's diet once a week.

If your baby has a family history of food allergies please speak to your dietitian.




How to introduce these foods:

| Week 1 | | | | |
|-----------------------------------|---------|-----------|----------|-------------------------------------|
| Monday | Tuesday | Wednesday | Thursday | Friday |
| Toast finger (White, no seeds) | | | | Peanut butter (Smooth salt free) |
| Week 2 | | | | |
| Monday | Tuesday | Wednesday | Thursday | Friday |
| Egg (Well cooked) | | | | Salmon (cooked, no added salt) |

1. Introduce one allergen at a time
2. Leave three days between each new food– this will help identify the suspected food if allergic reaction occurs
3. Give first thing in the morning and when your baby is well

Other Nutrients to Consider

| Nutrient | Function | Sources |
|---|---|--|
| Vitamin D  | <p>Vitamin D helps your baby use calcium to build and maintain strong teeth and bones</p> | <p>There is no need to take vitamin D supplement from birth to 6 months, unless otherwise recommended, as it is now included in infant formulas.</p> |
| Iodine | <p>Iodine is needed to make thyroid hormones and for bone and brain development.</p> | <ul style="list-style-type: none"> • Fortified dairy free products eg milk, cheese, yoghurts • Eggs • White fish |
| Omega-3 fats | <p>These are essential for brain and eye development. It is found in the soya formulas.</p> | <ul style="list-style-type: none"> • Oily fish (salmon, trout, mackerel, sardines) – tinned, fresh or frozen. Include one 30g portion of oily fish a week from 7 months of age. |

| Nutrient | Function | Sources |
|----------------|--|--|
| Calcium | Calcium is important in building strong teeth and bones. | <ul style="list-style-type: none"> • Soya infant formula (main source until baby starts on solids) • Suitable dairy free yoghurt, cereals Custard, enriched with calcium • Suitable cheeses • Suitable milk enriched with calcium <p>Once your baby turns 1 year old they should change from soya infant formula to soya milk fortified with calcium</p> |
| Iron | The iron stores that your baby is born with is used up at 6 months, so it is extremely important that the weaning diet includes enough iron-containing foods to prevent iron-deficiency anaemia. | <ul style="list-style-type: none"> • Red meat which includes beef, lamb, pork • Eggs • Beans • Sardines • Tuna • Cereals with added iron • Dark green leafy vegetables |

Introducing the Beaker

It is a good idea to introduce a beaker/cup when you begin weaning. Offer sips of cool boiled water or infant formula with meals. By 1 year of age, it is recommended all drinks are taken from a beaker.

Why move on from a bottle to a beaker?

Using a beaker without a valve will help your baby learn to sip and strengthen muscles they need for eating and speaking

What should you put in the beaker:

- Soya infant formula
- Cool boiled water
- Dairy free milk

Avoid giving juice of any type to your baby. Drinking water will get them into good habits for life and keep teeth healthy.

Bottled water is not recommended as it can contain too much sodium. If using, look for water with a low sodium content i.e. less than 2mg per 100ml. Brands such as Evian and Volvic are suitable. Please check all bottled water before using. Please see guidance from the FSAI on recommendations for bottled water for babies.

What to look for in a beaker?

- A free flowing spout
- Handle on both sides such as Tommee Tippee Free Flow Trainer cup and Ikea Borja Training Cup

| Open cup (from 6 months) | Free flowing beaker / sippy-cup (from 6 months) | Pop up straw bottle-free flow (from 9 months) |
|--|---|--|
|  |  |  |

What if my baby doesn't like the beaker?

At first your baby may find it difficult to drink from a beaker but with some practice at every meal, they will quickly learn to drink successfully from it. Spills and accidents will occur, but this is all part of the learning process. Remain patient and positive.

As your baby starts to eat more solid foods, you can expect the amount of soya infant formula to reduce. Aim for 500-600mls (17-20oz) per day.

Bowel Motions (Poos)

Bowel motions should be bulky and soft. Some parents find that their baby's bowel motions change and become hard when they start introducing solid foods.

To help prevent this:

- Include fruit and vegetables every day, and
- Make sure your baby is getting enough drinks. Give some cooled boiled water in a beaker in addition to their soya infant formula milk

If your baby is in discomfort, please contact your GP.



What about my Baby's Teeth?

All children should visit a dentist by their first birthday.



In order to protect their teeth:

- Soya infant formula and water (cooled boiled water up to 1 year) are the only recommended drinks for under 1 year olds
- Moving from a bottle to a beaker helps minimise tooth decay
- Avoid sugary drinks e.g. squash, fizzy drinks and juices and sugary snacks e.g. biscuits, sweets will damage your baby's teeth
- Teeth should be cleaned gently with a soft toothbrush and water daily
- Fluoride toothpaste is not suitable for children under the age of 2. After 2 years, a pea-sized amount of toothpaste can be used.
- Do not allow your baby to suck on a bottle continuously overnight as this can cause tooth decay

Reading Food Labels

It is important to be able to identify which foods are suitable for your child with Galactosaemia.

Suitable Ingredients



- Lactic Acid E270
- Sodium lactate E325
- Stearoyl lactylates
- Potassium lactate E325
- Calcium lactate E327
- Monosodium glutamate
- Gluconic delta lactone
- Butter oil
- Lysine
- Cocoa butter
- Butter fat, milk fat
- Ghee

Did you know?

Products which state they have been “made in a factory where milk products are made” or “may contain traces of milk” **are safe** to use. Provided there is no milk or milk derivative in the ingredient list.

Unsuitable Ingredients



- Milk, skimmed milk, skimmed milk powder
- Milk solids, milk protein, non-fat milk solids, separate milk solids
- Margarine or shortening (unless dairy free)
- Whey, hydrolysed whey protein, whey syrup sweetener, hydrolysed whey sugar, vegetarian whey
- Casein, hydrolysed casein, Caseinates, Sodium caseinates
- Cheese powder, cheese (unless known to be suitable -see page 18), cheese powder
- Butter, buttermilk, cream, artificial cream
- Yoghurt
- Lactose
- Artificial sweetener called Tagatose and Lactitol
- **Lactose free products as they contain a source of Galactose**

Read the food labels below:



Peach and Pear Baby Rice

Ingredients: Organic Pears 59%, Organic Peaches 38%, Organic Rice Flour 3%, Organic Lemon Juice Concentrate



Cheesy Potato and Spinach Bake Bay Jar

Ingredients: Vegetables* (37%) [Potatoes* (20%), Spinach* (10%), Onions*], **Skimmed Milk***, Water, Cooked Rice*, **Cheddar Cheese*** (3.7%), Rapeseed Oil* (1.7%), Pepper*, *Organic

Do I need to buy foods from the baby foods aisle?

No, as they are often high in salt and sugar. Homemade food is often cheaper, more nutritious and tastier than jars of baby food bought in the shops. You can cook a batch and freeze in small amounts

Foods to avoid:

- Honey
- Unpasteurised cheese, milk or yoghurt
- Undercooked eggs
- Sugar eg sweets, chocolate, jellies, ice cream
- Processed or cured meats such as sausages, ham or bacon
- Salt, gravies, packets or jars of sauces, packets of soup or meal makers or stock-cubes, crisps, chipper chips
- Tea or coffee
- Raw shellfish as this can cause food poisoning
- Swordfish, shark, marlin or tuna if your child is under 12 months - these fish contain high levels of mercury
- Liver
- Rice milk in children under 5 years



Honey must be avoided by babies under 1 year

Foods high in salt , fat and sugar should be avoided



Sample Meal Plan

Breakfast: Weetabix/ Readybrek, porridge made with soya infant formula or pureed fruit with soya yoghurt, fingers of toast with dairy free spread

Soya Infant Formula from a beaker

Mid morning: Soya Infant Formula from a beaker & finger food

Lunch: Minced or chopped pasta, couscous, rice, potatoes with vegetables and meat/poultry/ fish/egg

Finger foods

Soya Infant Formula from a beaker

Mid afternoon: Soya Infant formula from a beaker & finger food

Teatime: As per lunchtime meal, offer finger foods Soya Infant Formula from a beaker

Supper: Soya Infant formula from a beaker

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Notes:

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