



A Family Guide to Weaning: For Children with Kidney Disease



Enhancing Lives Together



When to start your baby on first tastes?

Weaning is an exciting time for you and your little one as they start to explore a variety of new tastes and textures. Breast milk or infant formula can meet a baby's needs for growth until about six months of age.

Babies usually start weaning around 6 months of age, however all babies are different. Some may be ready to start food a little earlier than others. Solids should only be given when your baby is ready and not before 17 weeks of age as their digestive systems are not mature enough.

The following signs are a good indication of when to begin weaning:



Your baby can sit up on their own and hold their head in a steady position



Your baby is showing an interest in food



Your baby can grab things and put them in their mouth

Feeding your baby with kidney disease

Healthy kidneys filter blood and remove excess water, salt and waste from the body in the urine. Babies with kidney disease have impaired kidney function, and their kidneys do not remove water, salt and waste from the body as well as they should.

Potassium and phosphate are minerals that can build up in the blood as kidney function decreases. We get potassium and phosphate from the foods we eat, and your baby's intake of potassium and phosphate may need to be adjusted if their potassium and phosphate blood levels start to rise.

Your dietitian will help you with any changes you may need to make to your baby's diet.

Potassium: To help control potassium levels your dietitian may ask you to reduce your baby's intake of some high potassium foods that are often used for first weaning foods e.g. potato, sweet potato, tomatoes, banana, and avocado.

Phosphate: To help control phosphate levels we advise cooking meals from scratch (home-made meals) and trying to avoid processed foods that contain phosphate additives.

Your Dietitian may advise that you use a specialised feed which is low in potassium and phosphate in combination with breast milk or infant formula.

Salt: Cooking from scratch and not adding salt during cooking or at the table will help limit your baby's salt intake. A small number of babies require extra salt and will be prescribed salt supplements.

Baby jars and pouches can be used in addition to homemade food when needed.

One of the most important parts of weaning is that your baby enjoys whatever they can manage and they progress at their own rate. Often babies and children with kidney disease can only manage small amounts of food. Children who have had positive experiences with food such as touching, playing, licking, throwing and eating small amounts of food, progress with eating after their kidney transplant.

Due to the symptoms associated with kidney disease, you may find that your baby is not keen on trying solid food or is uninterested in food. Don't worry, this is common for children with kidney disease. Just licking or playing with the food is a positive thing!

Once children with kidney disease have a kidney transplant, their appetite improves, food tastes better and the majority of children eat a normal healthy diet.

To encourage eating always try to:

- Include your baby at family mealtimes
- Eat with others and include other children where possible e.g. siblings, friends
- Keep mealtimes relaxed and fun
- Try not to worry if your baby doesn't eat anything and makes lots of mess!
- Keep mealtimes to a maximum of 30 minutes
- Set regular times for meals.



GENERAL WEANING ADVICE:

- Always stay with your child when they are eating.
- **Avoid** adding salt or sugar.
- Some foods can contain a lot of sugar or salt e.g. stock cubes, baked beans and tinned soups. Try to **avoid** these and try using baby friendly stock cubes.
- **Avoid** honey for children under 1 year of age.

If you are concerned about any food allergies please speak to your dietitian or healthcare professional†.

†If there's a history of food allergies or other allergies in your family, talk to your GP, dietitian or health visitor before introducing nuts and peanuts.



What you need in your weaning kitchen

We encourage home cooking where possible without adding salt and sugar.

Cooking food yourself will allow you to know exactly what you are giving your baby. Cooking from scratch allows us to keep any additives to a minimum, helping to reduce the potassium and phosphate content of the meal.

Home cooked food can be tastier, cheaper and there is often less waste. Homemade food can be made in large batches and then frozen in small ice cube trays so that you can defrost and use these when needed.



Equipment needed:

- Vegetable peeler
- Sharp knife - to chop fruit and veg into small chunks
- Potato masher - to create a smooth texture or larger lumps as your baby progresses with their textures
- Grater
- Hand blender/food processor - for whizzing up foods into the correct texture
- Small pans - to reheat small portions (or you can use a microwave)
- Ice cube tray for freezing
- Spoons and bowls
- Bibs

Getting Started

Choose a time when your baby is not tired.

Give solids before your baby's usual milk feed.

Solid foods are **introduced in stages**, gradually moving towards the family's diet.

Stage 1 - First tastes - small amounts of purée, usually starting with single vegetable ingredients and moving on to fruits.

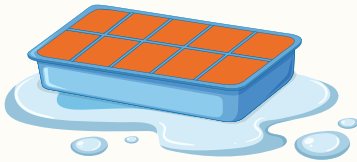
Stage 2 - Mashed foods, progressing to lumpy textures.

Stage 3 - Chopped up food with lumps and increasing in size.

Stage 4 - Family foods.

Stage 1: Purée foods

Babies need a smooth purée texture to begin with. Start by offering 1-2 spoonfuls of the purée food once a day. Gradually increase the amount according to your baby's appetite.



Make batches of foods. You can then put these into ice cube trays and defrost them when you want to use them.



Boiling, steaming and roasting vegetables are all suitable ways to cook vegetables.



If your baby is on a fluid restriction, try removing the excess liquid from the recipes or use a minimal amount.

How to add extra calories

Your baby may need extra calories to help them grow. Adding the following to food will help boost calories:

- Add margarine/unsalted butter/oil to cooking.
- Add olive oil to pasta.
- Add cream to cooking and desserts.
- Add crème fraîche, cream cheese and cream to cooking.
- Use full fat products e.g yogurts, rice pudding, custard, mayonnaise, milk, margarines.
- Add peanut butter[†] or cream cheese to toast/bread.
- Hummus as a dip with bread sticks.
- Add mayonnaise to foods e.g tuna/egg for sandwiches.



[†]If there's a history of food allergies or other allergies in your family, talk to your GP or health visitor before introducing nuts and peanuts.

How to start:

Start with offering single purée vegetables. Once you have introduced a range of vegetables, try mixing vegetables together and then introduce fruits. The following fruits and vegetables are the most suitable for babies with kidney disease.

Vegetables: Purée aubergine, broccoli, butternut squash, green cabbage, carrot, courgette, cauliflower, leek, peas, pumpkin, spinach, swede and sweetcorn.

Fruit: Apple, blackberries, blueberries, cherries, pear, pineapple and raspberries.

Baby rice/baby cereals can also be used.

Purée Recipes: These recipes can also be used when you feel your baby can move onto more textured foods. Just use a fork or masher rather than a blender to create lumpier textures.

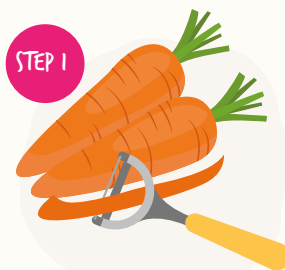
Carrot purée:

Ingredients:

2 Carrots

100ml breast milk, standard infant formula or a specialised low potassium, low phosphate feed (as advised by your dietitian)

How to make carrot purée:



Peel 2 carrots



Chop carrots into small pieces



Boil carrots until soft (10-12 minutes)



Drain water and allow carrots to cool



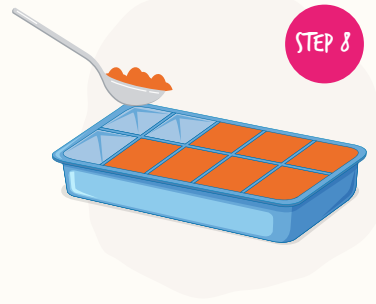
Add breast milk, standard infant formula or a specialised low potassium, low phosphate feed (as advised by your dietitian)



Use a blender to whizz up to a purée consistency



Add more milk if a thinner consistency required



Use straight away or add in to ice cube trays

Variations of above: Use the same steps as above to make purée aubergine, broccoli, butternut squash, cauliflower, courgette, peas, swede, spinach, and sweetcorn.

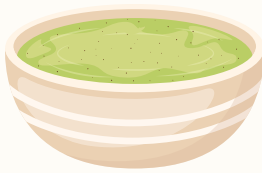
Pea and courgette purée

Ingredients:

1 courgette

100g of peas

100ml breast milk, standard infant formula or a specialised low potassium, low phosphate feed (as advised by your dietitian)



Method:

1. Cut the courgettes into small chunks.
2. Boil the courgette for 5 minutes.
3. Add frozen peas and boil for a further 3-4 minutes.
4. Drain vegetables and cool.
5. Add 100ml breast milk, standard infant formula or a specialised low potassium, low phosphate feed (as advised by your dietitian).
6. Use a blender to whizz up to a purée consistency.
7. Add more breast milk, standard infant formula or the specialised low potassium, low phosphate feed if a thinner consistency is required.
8. Add into ice cube trays and freeze or use straight away.

Butternut squash and broccoli

Ingredients:

Half a butternut squash

100g of broccoli

100ml breast milk, standard infant formula or a specialised low potassium, low phosphate feed (as advised by your dietitian)

Other vegetables you could add with butternut squash, include carrots, peas or spinach



Method:

1. Peel the butternut squash, scoop out the middle and chop into small pieces.
2. Chop the broccoli into small pieces.
3. Boil the butternut squash for approximately 8-10 minutes.
4. Add the broccoli to cook for a further 5 minutes.
5. Drain water and allow vegetables to cool.
6. Add 100ml breast milk, standard infant formula or a specialised low potassium, low phosphate feed (as advised by your dietitian).
7. Use a blender to whizz up to a purée consistency.
8. Add more breast milk, standard infant formula or the specialised low potassium, low phosphate feed if a thinner consistency required.
9. Add into ice cube trays and freeze or use straight away.

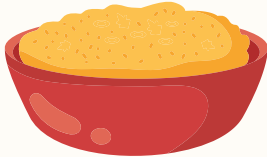
Carrot and Swede

Ingredients:

Half a swede

2 carrots

100ml breast milk, standard infant formula or a specialised low potassium, low phosphate feed (as advised by your dietitian)



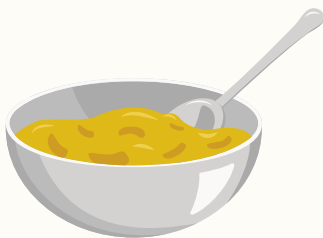
Method:

1. Peel the carrot and swede chop into small pieces
2. Boil the carrot and swede for 10-12 minutes, until soft.
3. Drain water and allow vegetables to cool.
4. Add 100ml breast milk, standard infant formula or a specialised low potassium, low phosphate feed (as advised by your dietitian).
5. Use a blender to whizz up to a purée consistency.
6. Add more breast milk, standard infant formula or the specialised low potassium, low phosphate feed if a thinner consistency required.
7. Add into ice cube trays and freeze.

Apple

Ingredients:

2 sweet apples e.g. Royal Gala, Pink Lady, Golden Delicious



Method:

1. Peel apples.
2. Chop the apples in to small pieces.
3. Place the apple in a saucepan.
4. Add a dash of water and boil until soft.
5. for approximately 10 -12 minutes until soft.
6. Once cooled whizz the apples in a blender until smooth.

Top tip:

Add a pinch of cinnamon for extra flavour.

Pear and raspberry

Ingredients:

2 pears

100g of raspberries



Method:

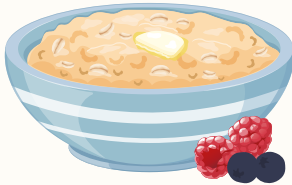
1. Peel 2 pears and chop into small pieces.
2. Place the pear in to a saucepan, add a dash of water and boil until soft (10-12 minutes).
3. Add the raspberries and boil for a further 1-2 minutes.
4. Allow to cool and then use a blender to whizz up to a purée consistency.
5. Add into ice cube trays and freeze or use straight away.

Top tip:

Mix up any combination of the fruit and vegetables above to make your own unique combination!

Stage 2: Mashed, moving to lumpy textures

Gradually moving onto mashed and lumpier food will encourage your child to chew. Mash food with a fork or potato masher instead of using a blender. You can start to offer soft finger foods.



Breakfast ideas:

Weetabix, porridge, and baby cereals

Soft fruit e.g soft pear, blueberries and raspberries (cut these fruits into halves)

You can add formula to your baby's cereals or a small amount of full fat cow's milk.



Meal ideas:

Small portion of soft cooked meat e.g chicken, beef, lamb, pork, fish, eggs, lentils or beans (kidney beans/ Cannellini beans/chickpeas)

Soft vegetables

Pasta, rice, cous cous, egg/rice noodles/potatoes



Pudding ideas:

Natural/Greek yogurt

Fruit

Rice pudding/custard

Dairy foods

Aim for 2-3 portions a day:



1 small pot of yogurt



Small portion of custard or rice pudding



1 thin slice of cheese

Your dietitian will help you with any changes you may need to make to your baby's diet.

Finger Foods

Offering your baby finger foods is a good way to help your baby to learn how to feed themselves and it can help them become familiar with different textures of food.

Finger food ideas from 6/7 months onwards:

Cut the foods into small strips which your baby can easily hold.



- Soft cooked vegetables: broccoli, carrot, cauliflower and cucumber
- Soft pear, raspberries, blackberries
- Soft wholemeal toast or bread/pitta/chapati with margarine/unsalted butter/soft cheese/smooth peanut butter[†]
- Bread sticks with hummus/cream cheese
- Soft pasta
- Fingers of omelette
- Baby corn/wheat snacks
- Rice cakes
- Homemade oat bars/plain biscuits

Some baby biscuits and snack bars often contain high amounts of sugar and are not recommended for daily consumption.

You may prefer to offer finger foods to your baby to allow them to feed themselves; this is known as 'baby led weaning'.

[†]If there's a history of food allergies or other allergies in your family, talk to your GP or health visitor before introducing nuts and peanuts.

Recipe Ideas

If your baby is struggling to progress to mashed foods, all of these recipes can be made into a purée consistency using a blender.



Red lentils and carrot mix

Ingredients:

- 1 tablespoon vegetable/olive oil
- 1 small onion
- 1 small carrot
- 50g red lentils
- 250ml vegetable stock
(Low salt stock cube)

Method:

1. Peel and chop the carrot and onion into small pieces.
2. Heat the oil in a saucepan and add the onion and carrot and fry for 5 minutes.
3. Add the lentils and stock.
4. Bring up to the boil, cover with a lid and simmer for 20 minutes.
5. Mash to the desired consistency using a fork or masher.

Top Tips:

Add a pinch of turmeric or ground coriander at step 2 for extra flavour.



Chicken casserole

Ingredients:

- 1 small potato
- 1 small chicken breast
- 1 small courgette
- 4 broccoli florets
- 100ml of a standard infant formula or a specialised low potassium, low phosphate feed (as advised by your dietitian)

Method:

1. Peel the potato and cut in to small pieces. Cut the courgette and broccoli into small pieces.
2. Put the potato into a saucepan cover with boiling water and simmer for 10 minutes.
3. Add courgette and broccoli and simmer for around 5-7 minutes.
4. Cook the chicken breast separately by frying in a pan with a small amount of oil until the chicken is cooked through.
5. Drain the potato and vegetables and allow to cool. Chop the chicken in to very small pieces and add to the potatoes and vegetable.
6. Add 100ml of standard infant formula or a specialised low potassium, low phosphate feed (as advised by your dietitian).
7. Blend to a chopped consistency/mash with a fork masher.
8. Serve one portion and divide the rest between small containers and freeze.



Fish risotto with peas

Ingredients:

- ½ onion
- 1 clove of garlic
- 1 tsp of oil
- 100g of peas
- 50g of white rice
- 1 small fillet of white fish
e.g cod

Method:

1. Preheat the oven to 180°C.
2. Dice the onion and garlic.
3. Wrap the fish in foil and place the fish in an ovenproof dish and bake for 12 to 15 minutes (until cooked through).
4. Heat the oil in a pan and add the onion and garlic, cook until soft.
5. Add the peas and rice and stir. Add the water until the rice and vegetables are covered and stir.
6. Cover and gently simmer until the majority of the water has been absorbed, approximately 10-12 minutes.
7. Once the rice is cooked flake the fish in to the rice and mash with a fork or masher.



Vegetable Biryani

Ingredients:

- ¼ of a small onion
- ½ carrot
- 2 cauliflower florets
- Splash of vegetable oil
- ½ tsp of curry powder
- 25g of frozen peas
- 80g of tinned chickpeas, drained
- 65g of Basmati rice
- 175ml of water

Method:

1. Chop the onion and carrot into small pieces, break the cauliflower into florets.
2. Heat the oil in a pan, add the curry powder and onion, cook for a few minutes until the onion softens.
3. Add the carrot, peas, cauliflower, chickpeas and rice, then stir for 1 minute.
4. Pour over the water, simmer gently with the lid on for 15-20 minutes until the rice is tender and the vegetables are cooked.
5. Allow to cool and mash with a fork or masher.

Top Tips:

Could serve with cooked cauliflower florets as a finger food.



Tomato bolognese sauce

Ingredients:

1 tablespoon vegetable/olive oil
400g minced beef
½ large onion, chopped
½ tsp ground nutmeg
1 carrot, chopped
1 celery stick, finely chopped
1 garlic clove, finely chopped
1 reduced salt chicken or beef
Stock cube with 200ml water
100ml passata
10g fresh basil

Method:

1. Heat the oil in a pan and fry the onions, carrots and celery for 5 minutes.
2. Add the garlic and fry for a further minute.
3. Add the mince to the pan and brown, breaking it up with a wooden spoon.
4. Add the stock, passata, basil and nutmeg and season to taste with salt and pepper.
5. Allow to simmer on a low heat for about an hour, using a lid that is slightly ajar to let out the steam.
6. Serve with pasta and garlic bread.

Stage 3: Chopped up food with lumps

At this stage chopping family meals into small bite size amounts should be manageable for your baby. Once they have managed chopped food, gradually try moving onto family meals.

All the following recipes can be enjoyed by the whole family or divided into portions and frozen.



Recipe Ideas



Beef Curry

Ingredients:

- 1 tablespoon vegetable/olive oil
- ½ medium onion, chopped
- 400g of lean diced beef
- 1 tbsp tomato purée
- Half tsp ground turmeric
- Pinch of mild chilli powder
- ½ tsp of mild curry powder
- 200ml water
- 80g of spinach - optional

Method:

1. Heat the oil in a pan, add the onions and fry until soft.
2. Add the beef and cook until browned.
3. Add the tomato purée, turmeric, chilli powder, curry powder and water.
4. Bring to the boil, cover and simmer for 20-30 minutes until the beef is cooked through and tender.
5. Add a little extra water during cooking if needed.
6. Add spinach at the end of cooking if desired and cook for a further 3-4 minutes.
7. Cook rice and serve with the curry.

Top Tips:

For more tender meat this dish could also be slow cooked on the hob or the oven for 2 hours.



Chicken, squash and chickpea stew

Ingredients:

- 1 tablespoon vegetable/olive oil
- 4 chicken thighs
- 1 onion, finely chopped
- 2 garlic cloves, crushed
- 1-2 rosemary sprigs, leaves picked and finely chopped
- 1 tbsp tomato purée
- 2 bay leaves
- 250g butternut squash, cut into small chunk chunks
- 1 x 400g cans chickpeas, drained
- 500ml of low salt chicken stock

Method:

1. Heat the oil in a pan, add the onion to the pan and fry until soft, then stir in the garlic, rosemary, tomato purée and bay leaf.
2. Cook for a further 2-3 minutes then, add the squash and chickpeas and mix- place this mixture into a casserole dish.
3. Use the same pan to fry the chicken in a splash of oil. Place the chicken skin-side down and fry for 2-3 minutes on each side until golden.
4. Add the cooked chicken and other ingredients to the casserole dish mixture.
5. Add 500ml of low salt chicken stock to the casserole dish with the ingredients in and cook in the oven for 1 ½ - 2 hours until all ingredients are soft.
6. Allow to cool a little, you could mash some of the chickpeas and squash into the sauce to thicken it.

Serving Idea:

Serve with rice, pasta or couscous.

Top Tips:

To make a creamier sauce - add some cream cheese or crème fraiche.



Cottage/Shepherd's Pie

Ingredients:

1 tablespoon vegetable/olive oil
1 small onion, chopped
2 garlic cloves, crushed
2 carrots, peeled and diced
1 celery stick, diced
250g lean lamb mince
or beef mince
400ml low salt beef stock
100g lentils (optional),
thoroughly rinsed
150g of peas
800g of potatoes suitable
for mashing
50g unsalted butter
75ml milk
60g grated cheddar

Method:

1. Heat the oil in a medium saucepan, add the onion and cook for around 5 minutes until softened.
2. Stir in the garlic, carrots and celery. Cook for a further two minutes.
3. Add the lamb or beef. Brown the meat, tipping off any excess fat.
4. Pour in the stock, add the lentils and bring to a simmer. Cook for 40 minutes, stirring from time to time.
5. Heat the oven to 180°C/fan 160°C/gas 4.
6. Peel the potatoes and cut in to small pieces. Boil the potatoes for 15-20 minutes until soft.
7. Drain, then mash with the butter and milk.
8. Remove meat mixture, add peas and stir. Add to oven proof dish.
9. Top with the mash and grated cheese.
10. Bake for 30 minutes until the top is golden and the mince is bubbling up at the sides.



Cheesy pasta

Ingredients:

30g of butter

30g of flour

300ml of milk

250g of pasta - any shape

120g mascarpone cheese,
soft cheese or 30g of a strong
flavour cheddar cheese

Method:

1. Prepare the white sauce: Melt the butter in a saucepan, stir in the flour and cook for 1-2 minutes.
2. Over a low heat gradually add the milk, and stir using a fork or whisk until thickened.
3. Add in the chosen cheese, stir and heat through.
4. Cook the pasta following directions from the packet.
5. Once cooked, stir in the white sauce with the added cheese and serve.

Top Tips:

Add in vegetables e.g peas and broccoli.

Add pasta to an oven proof dish and top with breadcrumbs and bake for 15-20 minutes for a pasta bake.



Sweetcorn and spinach fritters

Ingredients:

- 1 small can of no salt sweetcorn
- Handful of baby spinach leaves
- 1 garlic glove, crushed
- 1 spring onion, chopped
- 50g of plain flour
- ½ teaspoon baking powder
- 1 egg
- 50ml of milk
- 1 tablespoon vegetable/olive oil

Method:

1. Add all the ingredients except the oil in a food processor and blend until fairly smooth.
2. Heat a little oil in a frying pan until hot and dollop four spoonfuls of the mixture into the pan leaving space around them. Fry for just under 1 minute on each side until lightly golden.
3. When you flip the fritter, flatten with a spatula to ensure even cooking the whole way through.
4. Cook in three batches.

Top Tips:

You can freeze any fritters that you don't eat straight away.



Mini egg and vegetable muffins

Ingredients:

- 6 eggs
- 1 small carrot
- ½ small courgette
- 25g of peas
- 25g of cheese

Method:

1. Heat the oven to 200°C/180°C fan/gas 6.
2. Grease 6 holes of a muffin tin.
3. Put the carrot, courgette and peas (about 190g veg) in a microwaveable dish with 2 tbsp water. Cover with cling film and cook for 2 minutes or until tender.
4. Drain the vegetables.
5. Beat the eggs and stir in the vegetables and cheese.
6. Pour into the 6 holes. Bake for 15 minutes until the eggs are set.
7. Leave for a minute or two, then use a knife to carefully remove the muffins.



Oaty bars

Ingredients:

- 150g of oats
- 50g of melted butter
- 20g purée apple

Method:

1. Pre-heat oven to 180°C.
2. Melt the butter.
3. Add the oats into a large mixing bowl, add the butter and apple purée (to taste) and mix well until it forms into a sticky dough.
4. Pour the mixture into a baking tray lined with baking paper and using a spoon press the mixture down until it is evenly spread.
5. Bake for 15-20 minutes until the oats have completely set, then remove from the oven and leave to cool fully.
6. Cut into small rectangles.

Top Tips:

For extra flavour you could add 1 teaspoon of ground cinnamon, grated apple, grated carrots, crushed raspberries or blueberries or add peanut butter.

Thank you to the Paediatric Renal Dietitians at Nottingham Children's Hospital, UK
for developing the content for this booklet.



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