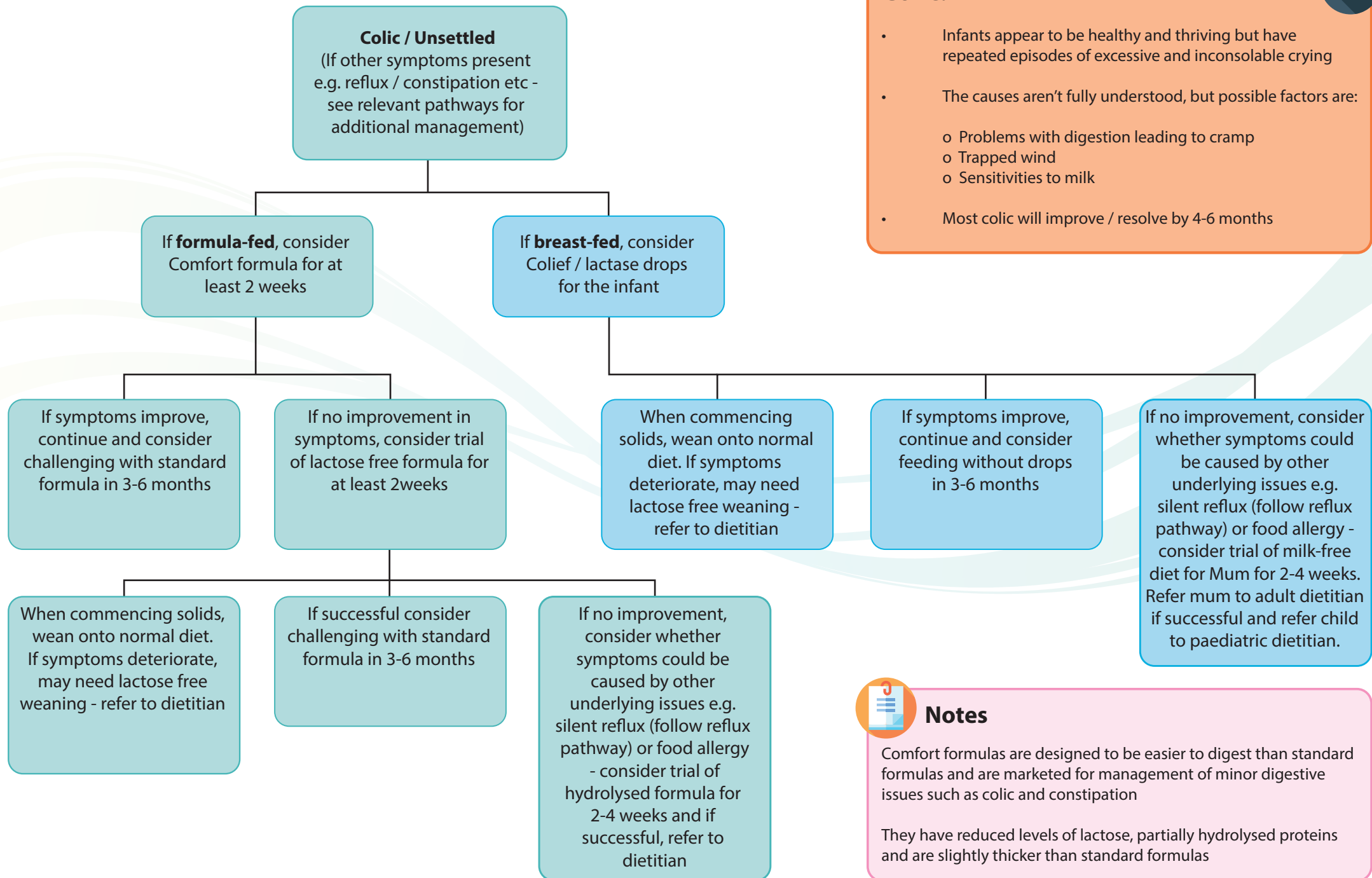


First-line Dietary Management Flowcharts for under 5's

- This information leaflet provides flowcharts to guide health professionals through appropriate first line dietary management of common dietary issues / feeding problems
- First-line advice should be implemented prior to referring to the dietetic department.
- If a child is formula-fed and trialled on a new formula, the trial should be for a minimum duration of 2 weeks, as improvements may not occur immediately and it can take some time for the new formula to take effect.
- Where a prescribable product is indicated, consider obtaining a trial prescription from the GP (usually 4-6 x 400g tins of formula to last 2 weeks)

This table shows the products referred to in the flowcharts that follow.

Comfort Formulas (OTC)	Anti-Reflux Formulas and products (OTC or prescribable)	Lactose-free milks (OTC or prescribable)	Extensively hydrolysed formulas (prescribable)	Amino Acid formulas (prescribable)	Other dairy substitutes Added to food <1yr, as a main drink >1yr (OTC)	Premature formulas (prescribable)
Aptamil Comfort Cow & Gate Comfort SMA Comfort	Thickened milks Aptamil Anti-Reflux Cow & Gate Anti-Reflux Thickening milks SMA Staydown Enfamil AR (prescribable) Thickener Cow & Gate instant Carobel (OTC or prescribable)	Aptamil LF SMA LF (OTC or prescribable) Enfamil O-Lac (prescribable) Lactofree range	Containing lactose Aptamil Pepti 1&2 SMA Althera Without lactose Nutramigen LGG 1&2 Similac Alimentum	Neocate LCP Puramino SMA Alfamino	Soya milk Oat milk Coconut milk Almond milk Hazelnut milk Hemp milk	Nutriprem 2 SMA Gold Prem 2



Colic:

- Infants appear to be healthy and thriving but have repeated episodes of excessive and inconsolable crying
- The causes aren't fully understood, but possible factors are:
 - o Problems with digestion leading to cramp
 - o Trapped wind
 - o Sensitivities to milk
- Most colic will improve / resolve by 4-6 months

Notes

Comfort formulas are designed to be easier to digest than standard formulas and are marketed for management of minor digestive issues such as colic and constipation

They have reduced levels of lactose, partially hydrolysed proteins and are slightly thicker than standard formulas

Reflux:

- A normal physiological process which occurs several times a day in healthy infants
- Episodes usually occur after feeds & last around 3 minutes
- Self-limiting & usually resolves by 12- 14 months – often before (when solids are introduced)



Reflux

(If other symptoms present e.g. colic / constipation etc - see relevant pathways for additional management)

Recommend:

First-line diet sheet "Management of reflux" can be provided to parents / carers.



- Ensure child not taking excessive volumes of formula or breast milk (approx 150ml/kg if <6 months)
- Consider smaller, more frequent feeds until tolerance can be increased
- Check feeding technique if bottle fed: keep bottle horizontal
- Keep upright after feeds

If **breast-fed**, consider using a thickener as a thick paste from spoon before or during the feed

If symptoms improve, continue and consider trying with unthickened feeds when older / once established on solids

Consider early introduction of solids from 17 weeks

If no improvement, consider using Infant Gaviscon (instead of thickener)

If ongoing problems, ask GP or paediatrician to consider alternative anti-reflux medications

If still symptomatic, consider a dairy-free diet for Mum for 2-4 weeks. If successful, refer to dietitian

For **formula-fed** babies, consider a thickener added to feeds or a pre-thickened formula milk

If symptoms improve, continue and consider trying with unthickened feeds when older / once established on solids

Consider early introduction of solids from 17 weeks

If no improvement, consider using a "thickening" milk

If no improvement, consider using Infant Gaviscon (instead of a thickened formula)

If ongoing problems, ask GP or paediatrician to consider alternative anti-reflux medications

If still symptomatic, consider if symptoms could be due to underlying food allergy. Consider trial of a hydrolysed formula for 2-4 weeks (may need to be thickened) If successful, refer to dietitian

Constipation:

- Hard stools, difficult and sometimes painful to pass
- Causes can include:
 - A change of diet
 - Dehydration
 - A minor illness like a cold
- Treatment is often a combination of medications and dietary treatment



Constipation

If other symptoms present e.g. colic / reflux etc - see relevant pathways for additional management

Recommend:

First-line diet sheet "**Increase your fibre intake**" can be provided to parents / carers. "**Recommended intake and portion sizes for children**" includes advice on fluid intake.



Check adequate volumes of fluid are being taken - see "**recommended intake and portion sizes for children**" diet sheet.

If formula fed, check that formula is being made correctly according to instructions

Consider using laxative medications

Consider introducing tastes of fruit or vegetable puree from 17 weeks

If already established on solids, consider increasing intake of fibre-rich foods (monitor growth as high fibre foods can be more filling and result in a reduction in intake)

If insufficient volumes, aim to increase intake (breastmilk or formula and / or cooled boiled water)

Consider Comfort formula for at least 2 weeks

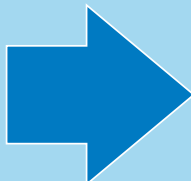
For children over 2 years, fibre requirements are "their age + 5g fibre" e.g. at 2 years aim for $2+5 = 7\text{g} / \text{day}$

Medications



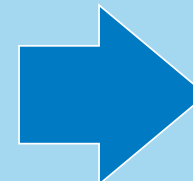
1st line

Macrogol laxatives
e.g. Movicol



2nd line

If unsuccessful consider adding a stimulant laxative in addition to Macrogol e.g. senna, docusate, sodium picosulfate



3rd line

If stools are hard, add lactulose

Note:



- A disimpaction regimen may be needed initially, followed by a maintenance plan
- Rectal medications and enemas should only be used if oral medications have failed

If no improvement following simple measures above, consider whether symptoms could be caused by other condition or underlying food allergy (see flowchart)

Suspected Food Allergy / Intolerance Symptoms

Suspected Lactose intolerance

This is an intolerance to the natural sugar in breastmilk / formulas / cow's milk. It is usually a temporary problem and often occurs following a gastric disturbance e.g. gastroenteritis / course of antibiotics. It usually resolves within 8-12 weeks of implementing a lactose-free diet

Common symptoms:

- frequent watery stools
- excess wind
- bloating

See lactose intolerance pathway

Suspected cow's milk protein allergy

Non-IgE-mediated allergy (delayed reaction to the milk protein - within 2-72 hours)

Food allergy should be suspected if there is a family history of atopy, at least one of the following common symptoms are present and they have not responded to first-line treatment:

- colic
- reflux
- food refusal
- altered bowel habits : frequent loose stools / diarrhoea or constipation
- abdominal discomfort
- blood and / or mucus in stools in an otherwise well baby
- perianal redness
- eczema / skin rashes
- respiratory congestion

See cow's milk protein allergy pathway

IgE-mediated allergy (immediate reaction to the milk protein - within minutes)

- urticarial rash
- swelling
- breathing difficulties
- vomiting
- diarrhoea

See cow's milk protein allergy pathway

Diagnosed by positive specific IgE blood test or skin prick test

Diagnosed based on symptom history and positive response to exclusion diet



Notes

Other reactions to foods containing natural histamines can mimic allergic reactions and typically present as rashes or swelling in relation to specific foods such as bananas, tomatoes, citrus fruits, strawberries, pineapple etc. These reactions are generally well managed with antihistamine medications. See GP for further advice.

Suspected Lactose Intolerance

If **breastfed**, consider starting Colief or lactase drops (and a low-lactose diet if the child is on solid food)

If beneficial, refer to dietitian for nutritional assessment and advice regarding reintroduction of milk

If still symptomatic, consider if symptoms could be due to underlying food allergy. See non-IgE allergy pathway.

If **formula-fed**, consider starting lactose-free formula or lactose-free cow's milk products (and a low-lactose diet if this child is on solid food)

If beneficial, refer to dietitian for nutritional assessment and advice regarding reintroduction of milk

If still symptomatic, consider if symptoms could be due to underlying food allergy. See non-IgE allergy pathway

Recommend:

First-line diet sheet "Non-dairy sources of calcium" can be provided to parents / carers.



Suspected Cow's Milk Protein Allergy

(see symptom chart to help distinguish between IgE and non-IgE mediated allergy)

Non-IgE-mediated allergy

If **breastfed**, consider a milk-free diet for Mum for 2-4 weeks.

If beneficial, refer to dietitian for nutritional assessment and further advice

If complementary bottle feeding is required, an amino acid formula should be chosen

If unsuccessful, consider if symptoms are due to other underlying issue e.g. reflux (see pathway)

If beneficial, refer to dietitian for nutritional assessment and further advice

If **formula-fed**, consider trial of a hydrolysed formula for 2-4 weeks and if successful, refer to dietitian

If unsuccessful, consider if symptoms are due to other underlying issue e.g. reflux (see pathway). A trial of an amino acid formula may be indicated for 2-4 weeks if still symptomatic.

IgE-mediated allergy

If symptoms are triggered through **breastmilk**, a milk-free diet should be recommended for Mum. Refer to dietitian for further advice

If complementary bottle feeding is required, an amino acid formula should be chosen

If **formula-fed** or mixed feeding, consider trial of hydrolysed formula for 2-4 weeks (unless child has presented with anaphylaxis, in which case commence on amino acid formula)

If beneficial, refer to dietitian for nutritional assessment and further advice

If unsuccessful, trial an amino acid formula

Plotting Growth:

- Born >32weeks, use normal growth chart and correct for prematurity until 1 year old
- Born <32weeks, use neonatal and infant close monitoring growth chart and correct for prematurity until 2 years old

Premature Babies

Born < 37 weeks gestation

Breastfed Babies

Mum to have a breastfeeding supplement containing 10 mcg vitamin D

Babies born <34 weeks gestation to have vitamin drops containing vitamins A,C,D and an iron supplement (e.g. Sytron) until 1st birthday

Babies born >34 weeks gestation to have vitamin drops containing vitamins A, C,D from 6 months of age (or from 1 month if any doubt about Mum's vitamin status during pregnancy)

Formula fed babies or mixed feeding

If born <34 weeks gestation, baby may have a post-discharge preterm formula

If born >34weeks gestation, baby can have a term formula

Preterm formula should be discontinued by 6 months corrected age

Once preterm formula is stopped, baby to have vitamin drops containing vitamins A,C,D and an iron supplement (e.g. Sytron) until 1st birthday

If baby is on term formula instead, intake should be supplemented with vitamin drops containing vitamins A,C,D and an iron supplement (e.g. Sytron) until 1st birthday

Vitamin drops containing vitamins A, C,D should be introduced once formula intake is <500ml / day

Introduction of solids

- Solids should be introduced between 5-8 months actual age, provided baby is a minimum of 3 months corrected age.
- Refer to Bliss weaning guide – see intranet