

Infant colic



Infant Colic

Symptoms typically start at the age of 2 weeks, are transitory, and tend to resolve within the first 4 months of life; they are rarely associated with serious conditions and are observed in breastfed and non-breastfed infants alike [2]. Symptoms are a combination of recurrent and prolonged inconsolable periods of crying, fussing or irritability in infants, which is without obvious reason, cannot be prevented and is distressing for infants and parents. Parents and HCP associate colic with abdominal pain, even though there is no definitive proof [1]. The underlying mechanisms are unclear but following have been discussed [3]: Imbalanced gut microbiota composition [6]; altered gut hormones [3]; psychosocial causes [7,8]; neurodevelopmental factors [9].

Symptoms

Infant colic manifests in a combination of symptoms, which may include, but are not limited to [1,3]:

- ✓ Crying in a higher pitch
- ✓ Irritability or fussiness
- ✓ Flushing
- ✓ Inconsolable crying
- ✓ Burping
- ✓ Tight fists
- ✓ Kicking

Practical algorithms are freely available and can assist in the diagnosis of infantile colic and selection of management options [14]. Additional documentation of the infant's behavior throughout the day may be useful for the diagnosis, therefore, parents can document crying times and characteristics in a diary [3].

Red flag symptoms include, but are not limited to [1,2,3]:

- Colic symptoms after 4 months of age
- Concomitant presence of regurgitation, vomiting, diarrhoea, and/ or weight loss
- Failure to thrive
- Fever or illness
- Extreme or high-pitched crying (louder, more intense crying, may sound like the baby is screaming [11])
- Lack of diurnal crying rhythm (crying bouts in the late afternoon / evening)
- Family history of atopy or migraine
- Maternal drug intake
- Parental symptoms of depression or anxiety
- Food allergies; the COMISS score helps screening for cow's milk protein allergy [17]

If one of the red flag symptoms is found, further assessment is required to identify possible underlying conditions or disorders [1,2]. All infants should be screened for red flag symptoms when colic is observed.

Management options

Parents may feel tired, worried about their infant's health or inadequate in meeting their child's needs. Therefore, acknowledgment and reassurance of the parents is important as first step of colic management [3]. Parents should understand that most colics are transitory and will disappear after the first months of life [15].

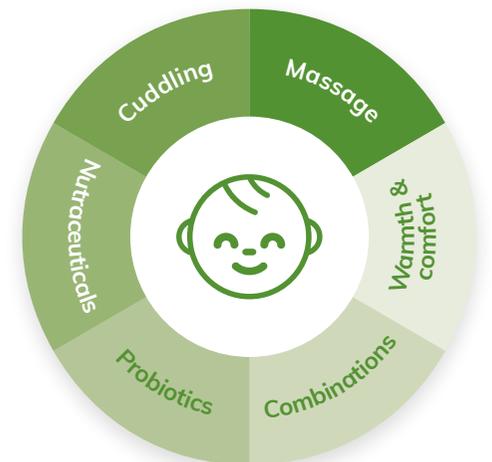
Existing management options are based on clinical experience rather than evidence-based science [3,5] and include:



Dietary options:

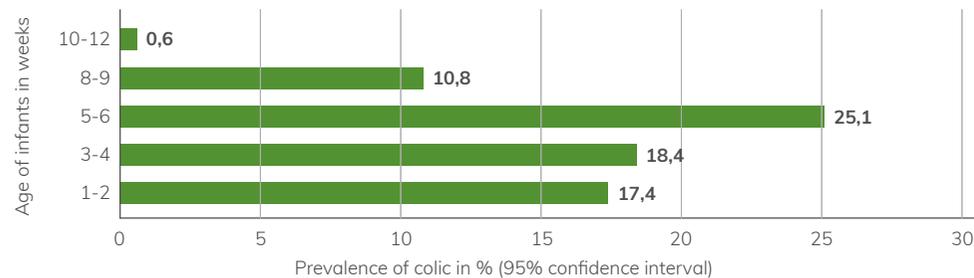
- Continued breastfeeding [13]
- Modification in (breast) feeding technique [12]
- Nutrition adjustment of breastfeeding mothers [3,13,18]
- For formula-fed infants consider switching the product [3,13]; partially hydrolysed protein has been suggested [16]

Complementary options [3,10,13]



Complementary options aim to provide comfort to the crying child. Some children may respond better to a warm blanket than a warm water bottle, seed pillow, or massage.

Prevalence of colic in infants under 3 months of age [based on Rome IV diagnosis criteria] [2]



Management options of infantile colic – in detail

Overcoming colic episodes is challenging for infants and parents. Therefore, management options target to improve colic symptoms and to support parents [2,15]. Existing management options are based on clinical experience rather than evidence-based science [5,6].

Parental education and reassurance:

Parents of colicky babies often feel frustrated, concerned and lack sleep due to the inconsolable crying. Hence, reassurance of the parents is very important and a key pillar in the management of infantile colic. A detailed physical examination of the child can take away the fear of an underlying organic cause. Education on the normal crying curve of infants can help in understanding that crying is a normal form of communication for infants and does not necessarily have to be an expression of pain. Also, modification of routines at home with the help of trained personnel can be considered [3,15].

Dietary options:

- Continued breastfeeding support [13]
- Modified feeding technique i.e. assuring good latch-swallow-suck of the breastfeeding infant; assuring that little air is swallowed also via teat [12]
- Adjusting nutrition of breastfeeding mothers, such as elimination of cow milk protein from maternal diet [3,13,18]
- If formula-fed, consider switching to a product with hydrolysed protein [3,13]

Complementary options:

- Gentle tummy massage [3]
- Cuddling and increased carrying [3]
- Blanket or warm water bottle on the stomach
- Herbal substances such as fennel, chamomile or gripe water have been suggested [3].
- Use of probiotics e.g. specific strains of lactobacilli and bifidobacteria have been suggested [10,13]

Pharmacological options:

Should be chosen by the treating health care professional and applied only under medical supervision

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