



Could it be Colic?

By Dr. David Hill

Parents have known about colic since Neanderthals gathered at the cave to complain about little Gark keeping them awake all night. But, despite the eons we've had to study the condition, our understanding of colic—its causes and its remedies—remains quite limited.

What is colic?

The most popular definition of colic was developed by Dr. M. A. Wessel in 1954. According to Wessel, an infant has colic if he or she is otherwise healthy and well-fed and cries more than three hours a day, more than three days a week, over a period of three weeks. This definition remains widely accepted, although the three weeks criterion has been omitted. Colic rarely starts before the third week of life; it peaks at six weeks, and it usually resolves before the end of the third month of life.

Unfortunately, Wessel's criteria for colic overlap substantially with normal infant behavior. Twenty-five percent of infants will cry three hours a day at

six weeks of life. Normal crying peaks twice during the day—once in the late afternoon and again at night. These patterns are consistent all over the world. Interestingly, premature infants display the same crying pattern based on when they *should* have been born. Crying, then, seems to be a normal part of an infant's brain development, making it very difficult to say what's abnormal.

Some doctors feel colic should include other characteristics. Colicky crying seems to start and stop randomly, unrelated to the infant's environment or activities. It may seem louder, higher-pitched, or more intense than other crying spells ("screaming" rather than just crying). Colic also seems to involve other behaviors: the abdomen is distended or tense, the legs are drawn up, the fists are clenched, and the back is arched. Finally, the infant is inconsolable; nothing you do seems to help.

continued on page 12

Could it be Colic?

Which babies will get colic?

Birth order, sex, and feeding (bottle versus breast) have all failed to correlate convincingly with colic. Maternal smoking during and after pregnancy does seem to contribute to colic, as does maternal depression. Parental stress and anxiety also track with colic, but it's almost impossible to tease out which is cause and which is effect.

What should I tell my doctor if my baby seems to cry too much?

Your baby's doctor will start by assessing the child's growth, sleeping patterns, eating, and voiding habits. Important clues include the relationship of crying to feeding: if feeding makes the crying worse, it may indicate a milk protein allergy or gastroesophageal reflux. Feeding patterns may also give clues to overfeeding, underfeeding, or inappropriate feeding.

It's also important for your doctor to know how you and other family members feel about the crying and how you respond to it. Colic can be extremely frustrating or depressing for families and may lead to feelings of tremendous guilt.

Is there anything that makes colic better?

The first thing to know is that, no matter what, the crying will get better. Sixty percent of colicky babies improve by three months of age, and 90 percent are better by four months. The second thing to know is that while dozens of things have been tried for colic, very few have been shown to help in scientific studies, and nothing helps every baby. So begin by letting yourself off the hook; don't feel bad if nothing seems to work.

Two to four percent of bottle-fed babies develop an allergy to the cow's milk or soy proteins used in most infant formulas. One intervention that seems to help is the use of casein or whey hydrolysate formulas (Alimentum, Nutramigen, Pregestamil, Good Start). Hydrolyzing (breaking up) these proteins makes them less visible to the baby's immune system, and thus less irritating. Some think soy formulas help based on the same mechanism, but better studies are needed. Lactose-free formula has not shown any benefit for colic, probably because lactose intolerance, while common in older children and adults, is almost unheard of in infants.

Doctors often counsel breastfeeding mothers to try eating a hypoallergenic diet (no milk, soy, eggs,

nuts, or wheat). While some studies suggest these changes may help, results are conflicting. It's worth a try, but if symptoms don't improve within a week, mom may as well resume a normal diet.

Feeding technique may make a difference. Bottle-fed babies may swallow less air if fed in a more vertical position or using a bottle with a collapsible bag. Breastfed infants in one study seemed to do better when allowed a longer time to empty one breast per feed as opposed to draining both breasts.

Many other interventions have failed the test of science: baby carriers like the Baby Bjorn don't seem to help. Pacifiers, car rides, massage, and warm baths have all failed to show measurable improvement. There is some evidence that reducing stimulation can help. Swaddling, white noise, and even the old car-seat-on-the-dryer trick have demonstrated some benefit. Parental counseling is another intervention that seems to improve colic. Parents are given a checklist (is the baby hungry, wet, soiled, cold, hot, or in need of comfort?) and if nothing seems wrong they're encouraged not to worry about the crying.

Herbal colic remedies have garnered interest from some parents. One study suggests a tea of chamomile, vervain, licorice, fennel, and balm-milk reduced symptoms, but risks replacing the important nutrients in breastmilk or formula.

Surprisingly, the most popular medical remedy for colic, simethicone (Mylicon), has never panned out in randomized controlled trials. Dicyclomine (Bentyl), an antispasmodic, beat placebo in trials but cannot be used safely in infants due to side effects that include apnea, seizures, and coma.

What's the bottom line?

Prolonged, even painful-looking crying is a normal part of an infant's experience, especially in the first three months of life. This type of crying is worth bringing to your doctor's attention, but if you're meeting your baby's basic needs and there are no acute medical issues, it's probably normal and little has proven to help. The good news is that by four months of life it almost always goes away.

Dr. David Hill is a board-certified pediatrician at Cape Fear Pediatrics in Wilmington, NC.