

GROWING HEALTHY KIDS:

Calming the Cry of

COLIC



By Jen Allbritton, CN

THE ELUSIVE INFANT CONDITION CALLED COLIC HAS PERPLEXED PARENTS AND HEALTHCARE PROFESSIONALS ALIKE FOR MANY YEARS. THE SEEMINGLY ENDLESS CRYING SPELLS AND SLEEP LOSS LEAD TO STRESS AND ANXIETY FOR ALL. EACH BABY IS UNIQUE AND IS AFFECTED BY A VARIETY OF FACTORS, AND EACH RESPONDS IN HIS OR HER OWN WAY. NEVERTHELESS, CURRENT RESEARCH AND THE PRINCIPLES SET FORTH BY WESTON A. PRICE GIVE PARENTS THE BEST CHANCE OF MAXIMIZING THEIR WEE ONE'S HAPPINESS AND PREVENTING EXCESSIVE HAIR-CURLING SCREAM SESSIONS.



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Colic: What We Know

Crying is baby communication and has many possible drivers; crying babies could be hungry, cold, wet, understimulated, overstimulated, bored, in pain, sick, moody, or anything else under the sun. It often takes some trial and error to figure out what will soothe a baby. When crying becomes loud and persistent, when soothing efforts are fruitless, and when potential physical conditions have been ruled out, the doctor will generally give a diagnosis of colic—which means, “We have no idea why your baby will not stop crying!” How frustrating!

The average infant cries between two and three hours a day. The commonly accepted clinical definition of colic is the “Rule of Three.” An infant that is well-fed and otherwise healthy is colicky if it cries for more than three hours per day, more than three days per week, for more than three weeks. However, when a baby is in the throes of a high-pitched crying fit, five minutes can feel like three hours. Some people are just better able to tolerate the noise and feelings of helplessness than others. This is what makes the term colic, or even excessive crying, so subjective. A Brazilian study found that as many as 80 percent of mothers believed their infants had colic; however, using the definition above, only 16.3 percent actually had the condition. Thus, as with many things, “excessive crying” really is in the eye—or ear—of the beholder.

There are enough gimmicky “colic cure” sales pitches to make your wallet burst into more tears than your child. But ultimately, science doesn’t know much about colic. Nevertheless, there are a number of contributing factors that, if remedied, may improve the situation. These issues may or may not be directly involved in the

cause of colic, but they are all things that should be evaluated by every parent. It all fits into the realm of learning about your unique bundle of joy and encouraging his or her best possible health.

Neuro-Development: The Strongest Theory to Date

Neuro-development is one of the most accepted ideas surrounding colic. The term “brain maturity” sounds sophisticated, but the concept is simple. It has been observed that babies with colic are more easily overstimulated than noncolicky babies. Once they are in a crying episode, it is challenging for them to return to a normal mental state.

This is where the idea of immaturity comes into play. These babies essentially don’t have the brain maturity to adequately transition out of an uncomfortable state of crying once it has begun.

Fortunately for these babies and their parents, an infant’s ability to come out of these uncomfortable states gets better with age. This is confirmed by the fact that colic or excessive crying usually subsides by four months of age. Another observation that supports this theory is the fact that many colicky babies are over-stimulated by “normal” soothing techniques, including rocking and singing. They tend to do better with white noise, darkness, and swaddling—but not always. Remember, each baby is different, and reading your baby’s signals is key to a solution.

Weston A. Price Knew All Along

Ultimately, support of brain development and growth are fundamental in preventing and calming the cries of colic. Weston A. Price’s Wise Traditions approach to nutrition provides the best

basis to achieve these goals. The Wise Traditions dietary principles center on supplying the body with liberal amounts of the nutrients that support nervous system health, including cod liver oil, organ meats, and traditional fats. Parents all over the world can attest to the value of adhering to a Wise Traditions diet before conception, as well as throughout pregnancy and lactation. A traditional diet high in vitamins A and D (seafood, cod liver oil, organ meats, egg yolks, and butterfat from grass-fed animals), bone broths, and properly prepared whole foods allows children to reach their maximum genetic potential. Children born to parents who follow Wise Traditions practices tend to have freedom from allergies and illness, good immune systems, and happy, calm dispositions. It has been seen time and time again that these principles support neural function as well as encourage a happy demeanor in infants and children.

Is There a Gut Connection?

Most doctors believe that intestinal problems cause colic, although research does not support this contention. However, some babies do feel discomfort caused by spasms of the intestinal smooth muscle and/or gas, which can lead to more crying spells. Positive results when antispasmodic pharmaceuticals are administered confirm this. Similarly, a randomized, double-blind, placebo-controlled study using a tea made from traditional antispasmodic herbs (chamomile, vervain, licorice, fennel and lemon balm) was found to be more effective at reducing crying time in colicky infants than a placebo. In this study, approximately half a cup of tea was given during each colic episode, up to three times per day. These herbs can be used alone or in combination, and can either be taken by a breastfeeding mother or given straight to a baby using an eyedropper (between 10 and 20 drops).

Another study of colicky infants using just an emulsion of fennel seed oil showed a decrease in the intensity of colic in 65 percent of cases, compared to 24 percent who received a placebo. The amount used was 1 to 4 teaspoons of a water emulsion of 0.1 percent fennel seed oil, up to four times per day.

Susun Weed, a well-known herbalist, recommends slippery elm bark as a digestive soother for colicky infants. When prepared, it becomes a thick “gruel” instead of normal tea. You can make it by mixing a liquid sweetener (barley malt, sorghum, or maple syrup) with the bark powder until it is thoroughly wet. Slowly add warm milk or water until it creates a porridge. Weed says there is no known limit to the amount that can be consumed safely. For colic, she says to add one or more servings to the diet to help quiet the intestines.

Reflux can also contribute to intestinal discomfort. In one study, babies with colic experienced more reflux episodes than those without the condition. Bear in mind, other symptoms often accompany reflux, such as severe spitting up, coughing, gagging and poor weight gain. Constipation is another possible cause of discomfort and has obvious signs that can be remedied.

Intestinal dysbiosis, or poor microflora balance, may also cause howling screams. In a double-blind study of infants, supplementation of a standard milk-based formula with probiotic organisms (*Bifidobacterium lactis* and *Streptococcus thermophilus*) significantly reduced the frequency of colic, compared to the same formula minus the probiotics. Similarly, another study found that after a month of administering probiotic oil drops with *Lactobacillus reuteri* bacteria, parents reported significantly less screaming in their children. Support of intestinal microflora is a core concept in the Wise Traditions diet. A probiotic supplement is a base ingredient in the recommended homemade baby formulas, just as cultured and fermented foods are recommended for adults.

Besides affecting overall development, nutrient deficiencies can impact digestion, increase gas and cramping, and disturb bacteria balance. All of the B vitamins, magnesium, potassium, calcium, and essential fatty acids play a role in intestinal health. These nutrients are all found in appropriate amounts in healthy breast milk, as well as in Wise Traditions homemade baby formulas.

Foods: Friend or Foe?

Is it a coincidence that the number of colic diagnoses has increased alongside autism and other disorders with our “advancements” in food processing and agricultural methods? Probably not. We are bombarded with toxins from our food, air, and water, and children are even more susceptible than adults to their dangers.

Food allergies are an area of interest when it comes to colic. A number of clinical studies support the theory that discomfort may be caused by negative reactions from food allergies. For

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example, children have been known to be intolerant to milk proteins from a cow's milk-based formula. If a baby is breastfed, certain foods in the mother's diet may provoke an allergic reaction in the baby as well. For example, pasteurized cow's milk consumed by a breastfeeding mother has been shown to trigger colic.

Another double-blind study found that restricting certain allergy-triggering foods from the mother's diet significantly reduced colic symptoms in infants. Although pasteurized cow's milk is the most common allergic food, others to consider are soy, nuts, and gluten (found in wheat and other grains.) Traditional food preparation methods may play a role in how the mother and child are reacting.

Bear in mind, if a food allergy or sensitivity is present, other symptoms will most likely appear, including gas, bloating, eczema, spitting up, diarrhea, or bloody or green stools.

Milk: Commercial vs. Raw

Pasteurization is a damaging process that alters the physical structure of the fragile proteins in milk, resulting in deformed and broken proteins the body is not equipped to handle. Additionally, pasteurization virtually eliminates milk's good bacteria and radically reduces its nutrient content. On the other hand, raw milk from pastured cows is one of the most healing foods available. The allergy studies condemning cow's milk evaluated the effects of pasteurized and homogenized commercial varieties. Although no studies have looked at the effects of raw milk versus pasteurized on colic, the superiority of raw milk has been demonstrated many times with babies and nursing moms on Wise Tradition diets.

To ensure proper digestion of milk, the Wise Traditions raw milk baby formula goes a step further by adding gelatin. There is extensive research showing that gelatin can improve the digestion of milk and milk products. In fact, early 20th century textbooks recommended inclusion of gelatin in infant formulas to help bring cow's milk closer to human milk. Studies indicate that gelatin inhibits curd coagulation, helps emulsify the fat, and stabilizes the casein to improve the digestibility and absorption of the fat. As a result, infants fed gelatin-enriched formulas have shown fewer allergic symptoms, vomiting, colic, diarrhea, constipation, and respiratory ailments than infants on straight cow's milk.

Formula Alternatives

Soy is a dangerous alternative. Some pediatricians will tell mothers of colicky babies to switch to soy formula—beware!



The minerals in soy formula are poorly absorbed, protease inhibitors disturb digestion, and phytoestrogens disrupt hormonal balance. Soy is not even hypoallergenic, often making colic, gas, and other symptoms worse. This is particularly serious in growing babies; however, it is best for everyone to avoid this overadvertised, toxic food.

If a substitution must be made for raw cow's milk, goat's milk is a possibility. A baby might find goat's milk easier to digest due to its smaller fat globules and softer protein curds. It has been said that goat's milk may be less likely to contribute to colic. However, goat's milk lacks certain nutrients readily found in cow's milk—namely, folic acid and B12—thus brewer's yeast and organic raw liver must be added to each batch of formula. Also, goat's milk tends to be more constipating than cow's milk. A third possibility is a meat-based formula, which has been a life-saver for several babies with severe milk allergies.

Perfidious Fruit Juice

Another food often given to infants that can cause trouble is fruit juice. Doctors at Miami Children's Hospital evaluated the role of fruit juice in colic. They found that the colicky infant group was more likely to suffer from gas, sleep troubles, and increased crying time after drinking apple juice than they did after drinking grape juice. Apple juice contains sorbitol and a higher fructose-to-glucose ratio than grape juice. Ultimately, carbohydrate malabsorption may be the culprit. Both apple juice and grape juice are high in sugar, and an unnecessary addition to the diet, even as children grow older.

Can Stress Contribute to Colic?

A mother's emotions can affect an infant. It is known that general distress and high anxiety during pregnancy increases the risk of infantile colic. The explanation may lie in the adrenal glands, both in the mother and baby, since excess stress wears them out. In *Let's Have Healthy Children*, published in the early 1970s, the popular author Adelle Davis wrote, "The most important fact to know about colic is that it rarely occurs unless the mother has been on such an inadequate diet during pregnancy that her baby's adrenal glands are exhausted. Unless the health of these glands is improved, you can expect years of problems associated with faulty adrenal functions, which include allergies, low blood sugar and almost every other abnormality known to man."

Stress can come from many places, including demands at work, environmental insults (pesticides and pollution), allergies, poor diet, and worries about the birth. If an infant's adrenals are

exhausted, they are unable to make adequate hormones necessary to prevent nutrient loss and help them deal with stress.

It is also said that the nervous tension of a mother can upset an infant enough to interfere with digestion, which can then go on to disrupt intestinal bacteria balance. This can lead to malabsorption and pain, and thus more crying. The crying upsets mom even more, and the cycle continues. Finding ways to relax, maintaining a low-key atmosphere, and rolling with the ebbs and flows of an infant will help reverse the cycle and soothe the infant.

What about stress experienced by the infant, and its effect on the nervous system? Consider factors like oxygen deprivation from prolonged labor, premature cutting of the umbilical cord, painkillers present in the mother's bloodstream and excessive ultrasound procedures. The effects of these factors on the neurological development and adrenal health of an infant have not been clearly defined, but the possibility of adverse consequences is real.

Often-Overlooked Contributors

It is clear the nervous system plays a role in colic and excessive crying. Could common compounds ingested by the mother during gestation and lactation make a baby's nervous system more sensitive or reactive, thus predisposing him to excess crying? It is likely.

The debate over vaccinations is intense. There is evidence to back up what numerous practitioners believe: Vaccinations may have a connection with cognitive dysfunction. Connections have been made with autism and other attention disorders (see the article titled "Autism and Vaccinations" by Mary Megson, MD, at www.westonaprice.org). Colic has not been directly linked with autism or vaccinations. However, given the effects of vaccinations on the nervous system, it's possible they could have a negative impact on mental stability, especially when infants are given their first shot on their first day of life.

Another possible influence on brain function is excitotoxins. There is a growing number of clinicians and scientists who are convinced these brain toxins play a role in the development of several neurological disorders, including seizures, infections, abnormal neural development, and certain endocrine disorders. Could they affect colic as well? The connection has not been studied, but the possibility is there. Excitotoxins are readily found in the food supply: They appear in MSG, hydrolyzed vegetable protein, and the artificial sweetener aspartame.

Pesticides are another brain enemy. There is substantial evidence that chronic, low-level exposure to organophosphates (the most common class of pesticide) may affect brain function and neurological development in humans. This evidence indicates a strong likelihood that chronic, low-level exposure adversely affects children's nervous systems. For older children this could mean lower cognitive function, behavior disorders, and other subtle neurological problems. But what about an infant exposed to these substances during gestation or through breast milk?

Traditional South African Remedy

Rooibos, or redbush, tea is made from the leaves of a South

African flowering shrub. This slightly citric-tasting tea has rosy overtones and a flavor close to that of black tea. It has a significant amount of polyphenol antioxidants and is caffeine-free, to boot! The people of South Africa have been drinking rooibos for more than 200 years, and it is traditionally used to aid nervousness, calm an upset digestive system, and induce sound sleep. It has also been used topically for skin allergies and minor skin problems, including diaper rash.

This tea gained attention in the late 1960s when a South African woman, Annemie Theron, found that it eased her infant's colic. As the story goes, she found no documentation on the benefits of rooibos, so she began her own experiments with local babies who had colic and allergies. She concluded that rooibos helped these babies, and she published a book in 1970 titled *Allergies: An Amazing Discovery*.

Today, South African physicians regularly recommend this tea as an effective stomach soother for adults and infants alike. The gentle-acting tea is believed to also work as an adaptogen, helping the body adapt to stress. Although no formal studies have been carried out, Elizabeth Joubert, a rooibos researcher and author of many clinical studies using the tea, says it does seem to help infant colic.

Consider Chiropractic

Several studies support the idea that colicky symptoms may be linked to mild biomechanical disturbances of the spinal joints, affecting nerve system function which may be helped by chiropractic adjustments. A large, preliminary study reported significant improvement in colic, often after only a single chiropractic adjustment. Another study revealed that 91 percent of parents observed improvement in their babies' symptoms after two to three adjustments. In a trial, infants were given either a placebo medication or a series of three to five adjustments using gentle "fingertip" pressure over two weeks. Infants receiving the spinal adjustments experienced a 67 percent reduction in daily hours of crying, compared with only a 38 percent reduction in infants on placebo medication.

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Quick Colic Review

Colic is a poorly-defined phenomenon about which science knows very little. The possible contributing factors can be equally detrimental to all infants, regardless of whether colic manifests or not. Thus, these issues should be of concern to all parents. The following is a review of what we do know about helping colic or excessive crying, which we hope will offer some comfort in a harried time:

Symptoms of colic frequently lessen significantly by 4 months of age. So keep your spirits up—it does get better! Also, rest assured: Science does not support the idea that colic is an early manifestation of a difficult temperament.

Poor brain maturity is the most accepted theory on the underlying cause of colic, suggesting that the Wise Traditions dietary advice of Weston A. Price is a very promising approach to colic prevention.

Problems elsewhere in the body can contribute to crying spells, including reflux, constipation, intestinal dysbiosis, and exhausted adrenal glands.

Try different soothing approaches with your infant, and to help prevent overstimulation, try just one different approach at a time.

The link between cow's milk and colic involves the pasteurized, homogenized versions. Raw milk, especially when combined with gelatin, has been shown to reduce colic and support overall healthfulness.

Soy milk is a dangerous substitution for milk or a formula base and should be strictly avoided.

Avoid feeding juice to children at any age.

Try to keep parental and infant stress to a minimum. This could mean slowing down at work, choosing to have a natural birth without painkillers, or making informed decisions at the hospital. These are all choices that should be considered carefully.

Be an informed parent when it comes to vaccinations. Read the articles at www.westonaprice.org, as well as the National Vaccine Information Center at www.nvic.org.

Focus on a Wise Traditions diet, devoid of processed foods, which will automatically eliminate the consumption of brain toxins like MSG, hydrolyzed vegetable protein and the artificial sweetener aspartame.

Choose properly grown organic or biodynamic foods for you and your child. Check out your local health food stores, farmers markets, or Community Supported Agriculture farms; see www.biodynamics.com for a listing in your state.

If your child is excessively cranky, consider trying antispasmodic herbs, rooibos tea, chiropractic adjustments, probiotics and homeopathics.

To create your best chances for the happiest, calmest baby possible, contemplate and implement these lifestyle changes well before pregnancy. Once again, the principles of Weston A. Price provide the foundational pieces to optimize health and happiness for everyone!