

## Patient information from the BMJ Group

# Colic in babies

In this section

[What is it?](#)

[What are the symptoms?](#)

[How is it diagnosed?](#)

[How common is it?](#)

[What treatments work?](#)

[What will happen?](#)

[Questions to ask](#)

## Colic in babies

If your baby has colic, you can feel depressed and exhausted. There's no cure for colic, but there are things you can try that may comfort your baby.

We've brought together the best research about colic and weighed up the evidence about how to treat it. You can use our information to talk to your doctor and decide which treatments are best for your baby.

## What is colic?

Babies who have colic are not ill, but they cry a lot more than babies usually do. Doctors say babies have colic when they cry for at least three hours a day, for three days a week, for at least three weeks.

Colic usually starts when a baby is a few weeks old and stops when they're 4 or 5 months old. <sup>[1]</sup> No one knows what causes it.



If your baby has colic, it can be distressing but it doesn't mean your baby is ill.

## Colic in babies

Some researchers think that colic could be caused by **wind** or painful **bowel cramps**. Some babies may be sensitive to **lactose**, a sugar that's in cow's milk. Other babies may be sensitive to the **protein** in cow's milk.<sup>[2]</sup> So your baby may get colic if you're giving them formula milk that's based on cow's milk.

But other researchers think that colic isn't caused by stomach problems. They think that some babies just cry a lot, and some parents are more worried by their baby's crying.

There are things that seem to bring on colic, although researchers don't know for sure.<sup>[3]</sup> <sup>[4]</sup>

**If you're breastfeeding**, the following things could trigger colic.

- What you eat. This is because what you eat goes into your breast milk. Chocolate, dairy products, spicy food, caffeine (found in coffee, tea, cola, and some other drinks), and some fruits and vegetables may bother your baby and bring on colic.
- A medicine that you may be taking. This is because some medicines go through to your breast milk.
- Smoking. If you smoke, your baby will get nicotine and other chemicals through your breast milk.

**Fast bottle-feeding** may also trigger colic. If you're bottle-feeding and your baby feeds in less than 20 minutes, the hole in the bottle's teat may be too large.

It's important to remember that colic isn't caused by you doing anything wrong. And it won't harm your baby.

### What are the symptoms of colic?

Babies with colic cry for at least three hours a day, for three days a week, for at least three weeks. Colic usually starts in the first few weeks of life.

Here are some signs that your baby may have colic.<sup>[2]</sup> <sup>[3]</sup> <sup>[5]</sup>

- Your baby often starts crying suddenly. The cry is high-pitched, and nothing you do seems to help.
- The crying begins at the same time each day, often in the afternoon or evening.
- Your baby may draw their legs up when they cry, and their tummy may look swollen.
- Your baby may clench their hands.
- Their face may look flushed.

## Colic in babies

- The crying can last for minutes or hours. But it often winds down when your baby is exhausted or when they have passed wind or a stool.

As a parent, you may feel very anxious when your baby cries non-stop for a long time and there seems to be nothing you can do about it. If you are worried about your baby, you should see your doctor. They will check whether something else is causing your baby to cry.

You should also see your doctor if your baby's pattern of crying changes suddenly or if they have: <sup>[2]</sup>

- A fever
- Forceful vomiting
- Diarrhoea or blood in their stools.

Sometimes babies cry for other reasons. Try to make sure your baby isn't hungry or in pain. Check whether they are too hot or too cold or have a wet nappy.

### How common is colic?

It's not easy to say how common colic is.

Different studies say different things. Anywhere from 5 in 100 to 20 in 100 babies get colic at some point. <sup>[6]</sup> About 16 in 100 families take their baby to see their doctor or health visitor for colic. <sup>[6]</sup>

### What treatments work for colic in babies?

No single treatment for colic has been shown to work for sure. You'll probably need to try different things.

- Parents who bottle feed their baby sometimes try switching to a different type of formula milk. But there's not enough research to say whether this helps with colic. You should switch formulas only under the guidance of your doctor or health visitor.
- Breastfeeding has lots of health advantages for babies, so if you're breastfeeding, your doctor probably won't recommend switching to formula because your child has colic.
- Babies under 3 months old may cry less if you stop jiggling, patting, or generally making them too excited.
- You may find it reassuring to have advice from your doctor or health visitor, to check there is nothing wrong with your baby.

# Colic in babies

We've looked at the research on colic and weighed up the evidence about how to treat it. We normally rank treatments into categories, according to whether they work. But there isn't enough good-quality research about any of the treatments for colic. They all **need further study** before we can say whether they work or not.

## Treatment Group 1

### Treatments for colic in babies

#### Treatments that need further study

- [Whey hydrolysate formula](#)
- [Casein hydrolysate formula](#)
- [Soya-based formula](#)
- [Low-lactose milk](#)
- [Using a vibrating cot](#)
- [Carrying your baby around more](#)
- [Trying not to stimulate your baby so much](#)
- [Counselling](#)
- [Cranial osteopathy](#)
- [Baby massage](#)
- [Spinal manipulation](#)
- [Simeticone](#)
- [Gripe water](#)
- [Herbal tea](#)
- [Probiotics](#)

### What will happen?

Your baby should be over colic by the time they're 4 or 5 months old.

Babies with colic usually continue to eat well and gain weight normally.

## Colic in babies

Here are some things you can try to comfort your baby and help stop the crying. <sup>[3]</sup> Bear in mind that we don't know if these things work because there hasn't been much research.

- Hold your baby in an upright position, to help any wind to pass.
- You may try giving your baby a dummy (but some health professionals may not recommend using one).
- If you're breastfeeding, allow your baby to finish one breast before you offer the second.
- If you're breastfeeding, you could try to avoid eating or drinking things that may upset your baby, such as caffeine (found in coffee, tea, cola, and some other drinks), alcohol, spicy foods, chocolate, or dairy products.
- If you're bottle-feeding, make sure that the hole in the teat is not too large. This is because you should avoid feeding your baby too quickly.
- Some parents use the noise of a vacuum cleaner or hairdryer to soothe their baby, or take their baby for a drive in the car. Running a tap or moving your baby into a new room or environment might also help.

If your baby has colic, you can feel depressed and exhausted. Try to take breaks. Let friends or family help look after your baby.

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### Treatments:

#### Whey hydrolysate formula

In this section

Giving your baby whey hydrolysate formula (brand name Pepti-Junior) instead of ordinary formula may help your baby's colic. Whey hydrolysate formula is made from cow's milk, but it has been treated so it's unlikely to cause an allergic reaction in babies.

One small study (a randomised controlled trial) showed that babies who were given whey hydrolysate formula cried on average one hour less each day. <sup>[2]</sup> Some of the parents in the study said their babies cried a lot less (two hours or more), but others said it only made a small difference (a couple of minutes). But this study was small, and there hasn't been any other good research.

If your baby is doing well on the formula you're using, your doctor probably won't suggest you change it. The exception is if you have a lot of allergies in your family (such as food allergies) or a skin condition called eczema (which has also been linked to an allergy to cow's milk). Then your doctor may recommend you use a formula designed to avoid allergies. <sup>[7]</sup>

## Colic in babies

If you're breastfeeding, it's probably best to carry on. <sup>[7]</sup>

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### Casein hydrolysate formula

In this section

Casein hydrolysate formula (brand names Nutramigen and Pregestimil) is made of cow's milk that has been treated. So it's unlikely to cause an allergic reaction in babies. But there isn't enough research to say whether replacing standard cow's milk formula with casein hydrolysate formula will help your baby's colic. <sup>[2]</sup> <sup>[8]</sup>

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### Soya-based formula

In this section

Some formulas are made from soya beans (brand names include Farley's Soya Formula and Infasoy). They are meant for babies who may be sensitive to formulas made from cow's milk.

One small study found that babies who had soya-based formula cried less than babies who had standard cow's milk formula. But this study included only 19 babies, so the results may not be reliable. <sup>[9]</sup>

Also, soya contains high levels of hormones that may affect how your baby develops. Experts are worried that these hormones could affect your child's fertility later in life. <sup>[10]</sup>

Guidelines for doctors say that soya formulas shouldn't usually be used instead of cow's milk formulas. <sup>[10]</sup>

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### Low-lactose milk

In this section

**Lactose** is the substance in milk that researchers think may trigger colic in some babies. You can buy milk that is low in lactose. It has been specially treated to remove most or all of the lactose. Brand names include Enfamil Lactofree and SMA LF. You can also buy **lactase drops**, which break down the lactose in normal milk. But check with your doctor or health visitor before trying these.

There hasn't been enough good research to say whether low-lactose milk helps babies with colic. There have been some studies of this treatment, but they weren't very good. <sup>[8]</sup> <sup>[1]</sup> <sup>[11]</sup> <sup>[12]</sup>

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### Using a vibrating cot

In this section

## Colic in babies

Vibrating cots have become popular for trying to soothe crying babies. But there's no good evidence that they help. We looked at one study that used a vibrating cot. <sup>[13]</sup> But the cot didn't help with colic.

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### Carrying your baby around more

In this section

Many parents carry their baby around more to try to comfort them. This is a natural reaction if your baby seems distressed. But there hasn't been enough research to say if it helps.

One good-quality study (a randomised controlled trial) found that babies who were carried a lot didn't cry less, even if they were carried for an average of six hours a day. <sup>[14]</sup>

It certainly won't hurt your baby if you try carrying them more. But you may find it tiring or stressful to do this for long periods.

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### Trying not to stimulate your baby so much

In this section

Trying not to pat, jiggle, or talk loudly to your baby may help if your baby is less than 3 months old. In one small study (a randomised controlled trial), this method seemed to work. <sup>[15]</sup> But there were some problems with this study, so we can't say for sure that the results are reliable.

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### Counselling

In this section

Your doctor or another health professional may offer you advice about how to help your baby's colic. But we don't know for certain if this type of advice will help your baby cry less, or make you feel less anxious about your baby's crying. There has been some research, but the results aren't clear. <sup>[13]</sup> <sup>[16]</sup>

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### Cranial osteopathy

In this section

Cranial osteopaths apply gentle pressure on the bones of the cranium (the top of the head). They believe that this can help with colic. But there hasn't been much research to say whether or not cranial osteopathy works for colic.

One review of studies (a systematic review) found two studies that suggested that babies with colic who had cranial osteopathy cried less than those who didn't have this

## Colic in babies

treatment. But the studies were small and had other problems affecting their reliability. So we need more research. <sup>[17]</sup>

We also don't know if this treatment can cause side effects.

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### Baby massage

In this section

When you massage your baby, you gently stroke different parts of their body. There are classes you can take to learn more about it.

We can't say if baby massage works because there hasn't been enough research.

One small study (a **randomised controlled trial**) compared massaging babies with putting babies in a **vibrating cot**. About half the babies cried less after the massage and being in the cot, so both treatments worked about the same. <sup>[18]</sup> But the study was small and not all the babies had colic. So it's difficult to know if the results are reliable.

Studies haven't looked at side effects from baby massage. But side effects seem unlikely as long as you are gentle.

Some oils used in massage may harm your baby. Ask your doctor or another health professional if the ingredients are safe for your baby. In the study we looked at, the babies were massaged with olive oil.

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### Spinal manipulation

In this section

Spinal manipulation is done by **chiropractors** and some other health professionals. It means putting gentle pressure on the spine. But we don't know if it will help your baby's colic. <sup>[19]</sup> <sup>[17]</sup>

A review of studies (a **systematic review**) suggested that babies with colic may cry less if they have spinal manipulation. But the studies were small and had other problems affecting their reliability. So we need more research. <sup>[17]</sup>

One of the best studies done so far found that spinal manipulation worked no better than simply holding a baby. <sup>[20]</sup> In the study (a **randomised controlled trial**), babies were either held by a nurse or given spinal manipulation three times a day for eight days. <sup>[20]</sup> It found no difference between the treatments in how much the babies cried.

Another study found that babies who had spinal manipulation for two weeks cried less than those who were given **simeticone**, another treatment used for colic. <sup>[21]</sup> But the study was quite small and had some problems.



### Simeticone

In this section

Simeticone (brand names Dentinox and Infacol) is a medicine that helps prevent wind. You can get it as drops, which you can put in your baby's mouth or add to your baby's bottle.

But simeticone doesn't seem to help colic. We found one study that said simeticone reduced crying.<sup>[22]</sup> But it wasn't a good-quality study. And other research has shown that simeticone doesn't seem to work any better than a dummy treatment (a placebo) in helping colic.<sup>[23] [24] [19]</sup>

The studies didn't report any side effects in babies given simeticone. It isn't absorbed by the body, so it should be safe.<sup>[3]</sup>

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### Gripe water

In this section

You can buy gripe water from a pharmacy. Different products contain different ingredients. The main ones are sodium bicarbonate, sugar, and other natural ingredients (such as ginger, fennel, charcoal, dill, caraway, cinnamon, and clove).

Many parents think it helps their baby's colic. But there hasn't been any good research to say whether it works.

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### Herbal tea

In this section

We don't know if herbal tea can help with colic. One small study (a randomised controlled trial) found that herbal tea with camomile, vervain, liquorice, fennel, and balm mint got rid of colic in nearly 6 in 10 babies.<sup>[25]</sup> But the study was too small to be reliable.

Some herbs have side effects, so you should check with your doctor or other health professional before giving your baby a herbal treatment. You should also remember that herbal teas, like all food products, aren't checked for quality and safety in the same way that medicines are.

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### Probiotics

In this section

Probiotics are tiny organisms, usually bacteria, that are sometimes used to help digestion. These 'friendly bacteria' are found in many foods but are also available in supplements, including drops.

## Colic in babies

In one small study, breastfed babies were given drops of either a probiotic called *Lactobacillus reuteri* or another treatment for colic, called [simeticone](#), once a day.<sup>[26]</sup> After 28 days, the average crying time for babies given the probiotic had dropped from 159 minutes a day to 51 minutes. Almost all babies taking the probiotic (95 in 100) cried less, compared with only 7 in 100 babies taking simeticone.

In another small study breastfed babies were given either probiotic drops (*Lactobacillus reuteri*) or dummy (placebo) drops. The babies given probiotics were more likely to have their average crying time drop by at least half over 28 days.<sup>[27]</sup>

These results are promising, but more research needs to be done before we know for sure whether probiotics can help.

Probiotics are similar to bacteria that live in your baby's bowels and are unlikely to cause harm. But it's a good idea to check with your doctor before trying this treatment. Also, bear in mind that probiotics aren't checked for quality and safety in the same way that medicines are.

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### Further informations:

#### Glossary:

##### proteins

A lot of your body's tissues are made out of proteins. Proteins can be made in your cells. Proteins are also part of the food you eat, particularly meat and dairy products. Your body breaks down the protein you eat into amino acids. Your cells then use these amino acids to build new proteins, which make up muscles, joints, hair and other parts of your body.

##### diarrhoea

Diarrhoea is when you have loose, watery stools and you need to go to the toilet far more often than usual. Doctors say you have diarrhoea if you need to go to the toilet more than three times a day.

##### allergic reaction

You have an allergic reaction when your immune system overreacts to a substance that is normally harmless. You can be allergic to particles in the air you are breathing, like pollen (which causes hay fever) or to chemicals on your skin, like detergents (which can cause a rash). People can also have an allergic reaction to drugs, like penicillin.

##### randomised controlled trials

Randomised controlled trials are medical studies designed to test whether a treatment works. Patients are split into groups. One group is given the treatment being tested (for example, an antidepressant drug) while another group (called the comparison or control group) is given an alternative treatment. This could be a different type of drug or a dummy treatment (a placebo). Researchers then compare the effects of the different treatments.

##### allergy

If you have an allergy to something (such as pollen or a medicine), your body always overreacts to it. The reaction happens because your immune system (your body's system for fighting infection) is too sensitive to it.

##### eczema

Eczema is a very itchy rash. It may be dark and bumpy and release fluid. Scratching makes it worse. You can get eczema anywhere on your body, but it is most common on the wrists, the insides of the elbows and the backs of the knees. If you have asthma or allergies you are more likely to get eczema than someone who doesn't have these conditions.

##### hormones

Hormones are chemicals that are made in certain parts of the body. They travel through the bloodstream and have an effect on other parts of the body. For example, the female sex hormone oestrogen is made in a woman's ovaries. Oestrogen has many different effects on a woman's body. It makes the breasts grow at puberty and helps control periods. It is also needed to get pregnant.

##### osteopath

An osteopath is a health professional who flexes and moves your bones, joints and muscle. Osteopaths aim to help people's bodies heal, particularly after injuries.

# Colic in babies

## systematic reviews

A systematic review is a thorough look through published research on a particular topic. Only studies that have been carried out to a high standard are included. A systematic review may or may not include a meta-analysis, which is when the results from individual studies are put together.

## chiropractor

A chiropractor is a type of therapist who manipulates your joints and spine with his or her hands. This aims to encourage healing by realigning the bones of the joint or spine and relieving pressure on your nerves.

## placebo

A placebo is a 'pretend' or dummy treatment that contains no active substances. A placebo is often given to half the people taking part in medical research trials, for comparison with the 'real' treatment. It is made to look and taste identical to the drug treatment being tested, so that people in the studies do not know if they are getting the placebo or the 'real' treatment. Researchers often talk about the 'placebo effect'. This is where patients feel better after having a placebo treatment because they expect to feel better. Tests may indicate that they actually are better. In the same way, people can also get side effects after having a placebo treatment. Drug treatments can also have a 'placebo effect'. This is why, to get a true picture of how well a drug works, it is important to compare it against a placebo treatment.

## bacteria

Bacteria are tiny organisms. There are lots of different types. Some are harmful and can cause disease. But some bacteria live in your body without causing any harm.

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## Colic in babies

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