

Fact sheet

Centre for Community Child Health

Probiotics for infants and children

In recent years, probiotic supplementation in our foods and probiotics promoted as dietary supplements have become quite common. You will usually see probiotics advertised as an aid to gut health. For babies and children, probiotics are promoted as possibly being helpful for conditions as varied as diarrhoea, infant colic and allergy. However, the evidence is mixed on whether probiotics are actually effective for a range of infant conditions.

All babies are born with a sterile gut. After birth, babies naturally introduce bacteria to their gut through the breastmilk or formula they drink and later, through the food they eat. These bacteria are an important part of the way that humans digest food and extract all the necessary nutrients. They also play a role in your baby's developing immune system. Probiotic supplements are intended to aid the bacterial colonisation of your baby's gut or to restore it when it has been disrupted.

Importantly, probiotics have strain-specific effects, which means that different types of probiotics will act in different ways. Probiotics as a term is equivalent to canine for different dog breeds; it gives you a broad idea, but no indication of whether you're faced with a Chihuahua or a Doberman.

The most common groups of probiotics are:

- *Lactobacillus*
- *Bifidobacterium*
- *Streptococcus*
- *Saccharomyces boulardii*.

All of these different groups of probiotics can have different effects in the body.



Research indicates that probiotics are safe and well-tolerated in normal, healthy infants and children. Good tolerance has also been observed in premature infants, very low birth weight babies and in HIV-infected children and adults. Probiotics are also safe to use in late pregnancy. There have been some cases of probiotic septicaemia in immunocompromised adults and children, but these have occurred in very unwell individuals with complex medical problems.

The evidence for probiotic use to treat a range of infant conditions is mixed. While there have been quite a number of studies of probiotic use in adults, there have been very few in children.

At the moment, the research evidence suggests that probiotics could help to manage allergies and provide relief from eczema symptoms. Probiotics might also help to reduce the frequency and duration of diarrhoea. However for infant colic, evidence indicates that probiotics are of limited use.

There has not yet been sufficient research to tell us which particular strains might be most effective, for which conditions, in what doses, and when. Before you consider adding probiotics to your own or your baby's diet, talk with your child and family health nurse or GP.

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Plagiocephaly

It's quite normal for new babies to develop a flat spot on their head. In most cases, this will correct itself and there will be no long term harm. This flat spot is called plagiocephaly.

All babies are born with soft skull bones so that their head can mould to the birth canal. Premature infants, whose skulls are even more pliable than full-term babies, are more susceptible to plagiocephaly. Babies from multiple pregnancies are also at higher risk because of being cramped in utero.

To reduce the risk of plagiocephaly, there are things that you can do to help your baby to vary their head position.

Sleep

- Alternate your baby's head position between left and right each time you lay them down to sleep.
- Encourage your baby to look at different angles at sleep time. You can place your baby at alternate ends of the cot, change the cot position, or put any toys or mobiles in different places to attract their attention.

Holding and carrying

- Vary the positions you use to hold and carry your baby. You can use a sling, hold your baby upright for cuddles and carry the baby over your arm on their tummy or their side.

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Playtime

- At playtime, place your baby on their tummy or side to play, starting with short periods of time. To ease your baby into tummy time, start by placing your baby belly-down on your chest when you're reclining on a chair or propped on some pillows in bed, which will let your baby see your face and feel more secure. As your baby becomes more comfortable in this position, gradually increase the amount of tummy time.
- You can also lay your baby on your lap or thighs and stroke down the baby's back rhythmically, using a circular motion between the shoulder blades, or play finger games on the baby's back, such as 'walking' with fingers. This helps your baby to relax and enjoy their time in this position.
- As your baby becomes more comfortable you can place them on a blanket or play mat on their tummy or side. Pop a rolled up towel under your baby's chest to reduce pressure on their tummy.
- Think about things that you can use to distract your baby. A safety mirror or brightly coloured toys placed in front of baby at playtime gives them things to look at and encourages your baby to reach out and shift their weight. You can also lie down and get face-to-face with your baby and make noises, sing or just talk.
- It's not a good idea to have tummy time when your baby has a full stomach as it can be uncomfortable. You should also avoid tummy time when your baby is tired because they probably won't want to work hard to lift up their head.

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