# Let's talk about poo





In early life the gut goes through significant changes, with rapid growth and needing to adapt as the diet changes from milk to solids. The small intestine doubles its length in the last trimester of pregnancy and grows from 275cm to 380cm in the first year of life<sup>8</sup>, starting to be quite a way for poo to travel. The rapid gut growth ensures there is sufficient surface area for all the absorption of nutrients and fluid that is needed<sup>8</sup>.

Poo is mostly water (75%), the solid part is made up from indigestible food, fatty substances, cells and inorganic compounds, with a large part of it being bacteria (a third to two thirds) – it's these bacteria that give poo it's mass and smell<sup>9</sup>. The amount and type of bacteria which live in the gut will change as your baby develops<sup>10</sup>. The good bacteria that live in the gut are important for gut health, and also play an important role in metabolism, immunity and cognitive function<sup>11</sup>, with the microbiome fully establishing itself at around 3 years of age<sup>12</sup>.

## Poo happens!

During your baby's first few years you will encounter a variety of poos that indicate your baby is growing and developing. What is normal for your baby will depend on your baby's age and diet. Differences in colour, frequency and volume can sometimes cause concern, and are often completely normal as the gut grows and adapts to any dietary changes. Poo can often change between days and between weeks<sup>1</sup>. Parents get plenty of chances to get used to looking at baby poo with an average of 1820 changes of wet or dirty nappies in the first year!<sup>2</sup>



## How often should poo happen?

In the first week of life poo happens on average 4 times a day, which changes to an average of twice a day in the first year<sup>1</sup>. All babies are different however, and your chosen feeding method will also have an impact on how often poo happens - breastfed babies may poo frequently in the early days, then some can go for several days, a week or sometimes longer with no poo<sup>3</sup>, and formula-fed babies can go several times a day initially, falling to an average of once a day after a few months<sup>1</sup>. A more adult-like pattern of one poo once to twice per day is reached from around age 1, which will vary between individuals<sup>4</sup>.

## How about poo colour?

- Newborn babies have dark black poo which is normal and is called meconium. It
  is very thick and sticky and will generally appear in the first 24 hours of life. The
  meconium will then start changing colour to greenish black on day 2, greenish
  brown on day 3, and then settle into brown, orange or yellow which are usual poo
  colours for breast and formula-fed babies.
- Green poo can happen due to a variety of different reasons in breast or bottle-fed babies, and is usually completely normal<sup>5</sup>. If your baby is being fed a hydrolysed milk, they are more likely to produce green stools (if you are unsure, check with your Healthcare Professional). If you are breast-feeding your baby or feeding a milk that is not hydrolysed and noticing your baby has consistently green poo, you can refer to your Healthcare Professional for advice.
- Black, red (if your baby is weaned check they haven't eaten any red foods), white or
  grey are not normal poo colours, and may indicate there is a problem. You should
  refer to your Healthcare Professional to check things out.
- Darker brown poos are produced after introducing solid food.

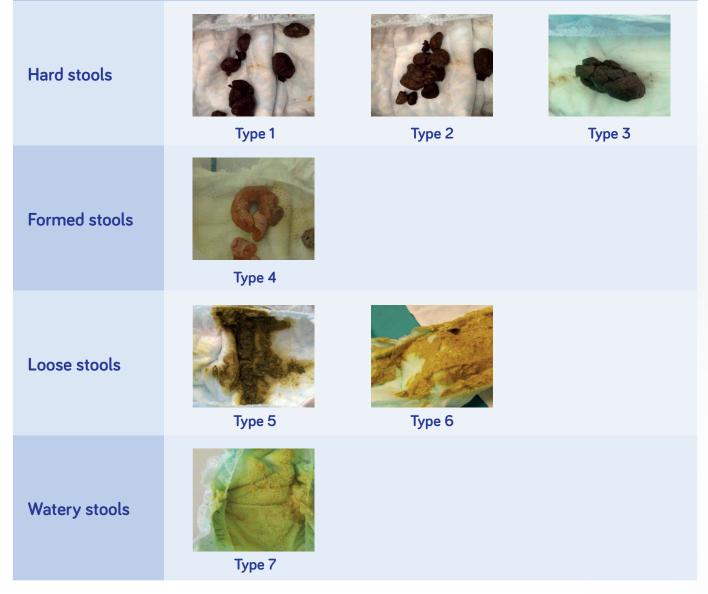
## And what about the smell?

If you are breastfeeding your baby, you will probably find their poo doesn't smell much at all and might be slightly sweet smelling. Formula-fed baby poo tends to be stronger smelling. The smell will also change once solid food is introduced. If you notice ongoing particularly foul smelling poos, you can check with your Healthcare Professional.

#### And the consistency of poo?

How you feed your baby will have an impact on the consistency of poo, with exclusively formula-fed babies tending to have fewer and more formed poos compared to exclusively breast-fed babies, who can have more liquid and more frequent poos in the first 3 months<sup>6</sup>. Changes in diet are likely to cause changes in poo which is normal. Before solid food is introduced whilst babies are on a milk diet, poo can be loose and mushy, becoming more solid on weaning.

Take a look at these pictures of poo and see how different they all are, ranging from hard to watery and stages in between. The poo types with low numbers are firm poos which have a slow transit through the gut. The poo types with high numbers are loose poos which have a fast transit through the gut. If your baby is straining and producing hard stools, or very watery stools, refer to your Healthcare Professional for advice.



Adapted from the Brussels Infant and Toddler Stool Scale.<sup>7</sup>



"I breast-fed my baby and her poo used to change colour a lot. I would always be worried something was wrong, but it's just how it was. I found even when I introduced formula that my baby's poo was always quite watery, and I used to think she had diarrhoea all the time, but I asked my Health Visitor and she said it was just normal. It was like that until we introduced solids."

Megan, mother to Emily age 3.



"Babies are all individual and so are their bowel habits. Finding out what is normal for your baby is important to help identify any possible problems. Young babies may poo at each feed, while others may poo two or three times per day. From around six weeks some babies may only poo every seven or more days. As long as your baby's poo is soft and easy to pass, is a green/ yellow/ brown colour, and they are growing well, then it is likely they are doing just fine. If you are ever worried about your baby's bowel habits then be sure to speak to your Healthcare Professional."

Paediatric Dietitian, UK





#### If you see any of these, seek advice from your Healthcare Professional:

- Mucus or blood in the stools
- Several very runny or explosive stools
- Very hard pebble-like stools like Types 1 and 2
- Check that your baby is producing lots of wet nappies still, at least 6 per day from day 5 onwards. Wee should be pale in colour. If it is dark brown or smells very offensive then you should speak with your Healthcare Professional



- Ensure baby is feeding well
- Give the gut a couple of weeks to adjust to dietary changes whilst it is perfectly safe to switch formulas immediately, every baby is different and some may experience settling issues. Allow a transition for a couple of weeks as it's normal to see poo differences whilst the gut adapts, and this will usually settle down again

#### References

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**IMPORTANT NOTICE:** Breastfeeding is the best form of nutrition for babies and provides many benefits to babies and mothers. It is important that, in preparation for and during breastfeeding, you eat a healthy, balanced diet. Combined breast and bottle feeding in the first weeks of life may reduce the supply of your own breastmilk, and reversing the decision not to breastfeed is difficult. The social and financial implications of using infant formula should be considered. Improper use of an infant formula or inappropriate foods or feeding methods may present a health hazard. If you use infant formula, you should follow manufacturer's instructions for use carefully – failure to follow the instructions may make your baby ill. Always consult your healthcare professional for advice about feeding your baby.

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