

We hear from so many parents who are struggling to help their baby with their 'gut behaviour'. By gut behaviour we mean: squirming, grunting, passing wind, passing stool, bringing up milk, burping and generally being upset by their normal gut activity. This is usually seen in the under 3 to 4 month old's; the well-titled "Fourth Trimester".

This behaviour can cause parents a lot of concern. They worry their baby has a gut issue such as reflux, colic or constipation and often focus their efforts on fixing the 'gut' problem. We find reframing this behaviour away from the guts as a cause, gives parents a lot more options for helping their baby through this time.

At Adelaide Mums and Babies Clinic we make sense of baby's gut behaviour by considering these below points:

- Firstly, babies are born with an immature nervous system. This means, they have not finished coating their nerves with myelin – the fatty sheath that covers nerve cells. We have almost as many nerve cells on our guts, as we do our brain! One theory suggests that infants find their normal gut functions "painful" until they have completed this myelination process. As in – their brains are receiving inappropriate messages from the nerves of their gut and their brain interprets this as uncomfortable. The passage of time will help with this. From 3–4 months of age babies tend to stop misinterpreting their normal gut function as painful.
- Additionally, our babies' guts are very sensitive to the sympathetic nervous system (SNS). This means that when our babies are "dialed up" (or unsettled), their guts become more active. So not only do they find their normal gut activity uncomfortable, but when they get more unsettled, the gut activity increases..
- We all have a reflex called the gastro–colic reflex. Which basically means – we eat; our guts get active. In our babies it means – we eat; we pass stool or wind. Some babies will be more sensitive to their gut actions, and these babies may have to take a break from a feed while they concentrate on passing wind or stool. Babies tend not to be good at multitasking eating and pooing! They may often appear "in pain", but again, it is more likely they are misinterpreting their normal gut actions as uncomfortable due to their immature nervous system.*
- Babies have very weak abdominal muscles, which makes it more challenging to pass wind and stool. And they are usually more horizontal. Sometimes the grunting they do will be to help them to increase their intrabdominal pressure to help pass wind/stool. Other ways to help a baby that looks like it is having trouble, is to put their legs into an M position upright against your tummy – this is the typical position created with modern baby–wearing devices. The M position and being upright really makes things a lot easier for them. Alternatively, just holding them with their tummy against you may be all they need.

Putting this all together – what does it look like? When babies are asleep, their sympathetic nervous system is dialled right down; when they are very distressed, their dial is stuck on high. You would have already seen this in your baby. They begin to wake from a sleep. Their sympathetic nervous system is starting to dial up. They begin to display gut behaviour – squirming around, passing wind or stool, maybe a bit of a spill. Quite rightly, you see the gut behaviour and assume the gut behaviour has awoken the baby. But, the opposite is more likely to be true – the baby was waking for something else (and in a young baby this is most likely to be a feed), and as the baby woke from sleep, its SNS started to get active, which then activated the gut. We see the gut behaviour.

So what can parents do to help their baby cope with their gut "discomfort". The answer is: keep the baby dialled down as much as possible, as this will help settle the gut. So how do we do that? We make sure their two basic needs are met: their hunger for milk; and their hunger for learning about the world around them (sensory nourishment). As well as a healthy dose of believing "this too shall pass" (which in this case is very true, as we know their nervous system will mature).

Practically this means – offering a feed whenever the baby starts to dial up. If this doesn't help the situation, or the baby is not keen for a feed, then simply step outside and show them a tree. I am not being facetious – they really do love seeing nature! The sensory stimulation they get from the outdoors cannot be underestimated – the rich diversity of colour and texture; the wind against their face; the temperature change; the sounds of birds, nature or even traffic; the smell of cut grass, flowers or even fertiliser! It is all very different from the static environment of the same 4 walls that is their home.

Then we get to the nights. It is very normal for our babies to be noisy sleepers. They grunt, wriggle, and can be distracting sleeping buddies! In general, just try and ignore those normal sounds until they change to a cue for a feed. Be reassured – they are not as fussed about their noises as we are! Sometimes it may mean they are not truly "dialled down". In this case – try and ensure their sensory bucket has been filled during the day, and that they have had a really good feed and don't need a little bit more. You can't over feed a baby – they will just puke up the excess. If you have a very generous supply, bringing baby back to an emptier breast will give them more "cream" which will help them to feel full and settle their tummies.

Another tip to making the night times more manageable is to reduce anything that may dial the baby up. Nights should be calm, quiet and dim. Nappy changes only need to be done if the nappy is dirty, not if it is just wet. Try and time any needed nappy changes for part-way through a feed. If this is not possible, then consider a quick little top up at the breast to re-settle the baby if not easily drifting back to sleep.

There is one commonly practiced ritual that will often disrupt that lovely calmness that follows a feed – and that's burping. Did you know that burping a baby is only practiced in Western cultures? The evidence shows us that babies just don't swallow that much air no matter how they are fed: bottle, breast, cranky, happy. Ultrasound studies have looked at this closely. Any ingested air will just come up when it is ready – much like your gas. A simple position change may help (ie resting baby over your shoulder); but if baby has fallen straight asleep after a feed, there is no need to interrupt this – just place baby back into its sleep space. If we routinely go into a burping ritual after a feed, we do risk creating an unsettled baby that then requires more parental input to resettle. We also know that any ingested air does not travel all through their guts and come out as wind. Bottom wind is created by the fermentation of sugars in the large intestine; not by swallowed air. Dr Pamela Douglas has done an excellent podcast called "The Burp and Puke Chat" on her podcast station – 2020 Baby. This is another great resource.

Many parents will reach for products to help calm their baby's guts, such as Infant's Friend, Infacol and gripe water. Although they are safe, there is no evidence that they work consistently. If the above mentioned methods do not help to calm your baby, then an appointment with us at Adelaide Mums and Babies Clinic may be useful to explore other reasons for excessive gut behaviour, including medical problems.

To summarise: for the vast majority of babies, the discomfort they display with their normal gut function, is not pathological. It is a combination of their immature nervous system, and the fact that their sympathetic nervous system activation creates more gut activity. This improves with time, and before then, we can help dial down their guts by offering a feed or stepping outside.

-by Dr Briony Andrew

**I would like to caveat this with the importance of not missing a breastfeeding problem with poor fit and hold leading to excessive and persistent fussing at the breast including back arching, pulling on and off, and not being able to settle into a relaxed feed. If this is the case – we encourage a breastfeeding assessment with us, or looking into the Gestalt Breastfeeding Program by Dr Pamela Douglas.*