Baby weight losses and weight gains

What is normal for breastfed babies?

The World Health Organization growth standards\(^1\) are the best reference for growth in the first 2 years as they reflect the growth of breastfed babies.

The general guidelines that are usually given for weight loss and weight gain are:

- a baby loses 5-10% of birth weight in the first week and regains this by 2-3 weeks\(^2\)
- birth weight is doubled by 4 months and tripled by 13 months in boys and 15 months in girls\(^1\)
- birth length increases 1.5 times in 12 months\(^1\)
- birth head circumference increases by about 11 cm in 12 months\(^1\)

However, all babies grow differently and these are just general guidelines. If you are concerned about your baby's growth, contact your medical adviser for a thorough assessment of your baby's general health and wellbeing.

Baby weight losses – the early days

Normal weight loss

All infants lose weight after they are born, no matter what or how they are fed. It is normal for breastfed infants to lose weight for the first 3 days after birth. Exclusively breastfed infants are perfectly adapted to survive on the small volumes of colostrum they receive in the first few days of life. After this, their mothers begin to make large volumes of breastmilk which then provides all the fluids, energy and nutrients they need and they will slowly regain their birthweight over the next 2 to 3 weeks.\(^2\)

Weight loss in infants is expressed as a percentage and a maximum weight loss of 7-10% is considered normal (for review of guidelines from breastfeeding-friendly authorities see Tawia & McGuire, 2014).\(^3\)

Epidurals and intravenous fluids

Concerns about excessive weight loss in infants, combined with changes in the management of birth, have led researchers to investigate whether there is a link between the two. Much recent research has focussed on looking at whether the newborn infant is overhydrated due to the administration of intravenous fluids to the mother during birth. When women receive intravenous fluids during the birth, for example, when they receive epidural anaesthesia, the fluids move freely from a woman to her foetus and, as a consequence, the infant is overhydrated at birth. This extra fluid is then naturally removed from the infant's body when it urinates, particularly on day 1, and may make it appear that the baby has lost an excessive amount of weight.\(^4\)

Evidence is accumulating that maternal intrapartum intravenous fluids are associated with excessive weight loss in healthy, term, exclusively-breastfed, newborn infants.\(^5\)

What is a Growth Chart or a Percentile Chart?

Growth charts are often used to help follow and assess a baby's growth. Your baby's weight can be plotted against a weight-for-age growth chart. Historically, these charts have been compiled by measuring the weights of hundreds of different children at each age. The most common type of growth chart is a percentile chart where these hundreds of weights are then divided into 100 equal groups. These groups are then plotted on a graph or listed in a table.

If your baby record book does not contain the World Health Organization growth standards, you may like to print out and put them in your book. Importantly, the World Health Organization growth standards are based on healthy, exclusively breastfed babies from six countries across five continents. These more accurately show how a normal baby should grow. You can find the World Health Organization child growth standards percentile charts and tables here:

<table>
<thead>
<tr>
<th>Charts</th>
<th>Tables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls</td>
<td>Girls</td>
</tr>
<tr>
<td>Boys</td>
<td>Boys</td>
</tr>
</tbody>
</table>

The simplified World Health Organization child growth percentile field tables, which are very easy to read, (Scroll to end of article) and can be found at: [http://www.who.int/childgrowth/standards/sft_wfa_girls_p/en/](http://www.who.int/childgrowth/standards/sft_wfa_girls_p/en/) [http://www.who.int/childgrowth/standards/sft_wfa_boys_p/en/](http://www.who.int/childgrowth/standards/sft_wfa_boys_p/en/)
How do I read a Growth/Percentile Chart?

The following example explains how you should read a percentile chart:

- 3% of children will be below the 3rd percentile and 3% of children will be above the 97th percentile
- 15% of children will be below the 15th percentile and 15% of children will be above the 85th percentile
- 50% of children will be below the 50th percentile and 50% of children will be above the 50th percentile

The 50th percentile is not a pass, it means that 50% of the normal population is below this line and 50% is above it.

If a baby's height or weight is 'off the chart' (above the 97th percentile or below the 3rd), there is a higher chance of something being wrong and it is wise to check with your medical adviser. In many cases though, all is well. Three in every 100 normal babies will weigh less than the 3rd percentile, often because both parents are small.

Does it matter if my baby doesn’t ‘stick’ to a percentile line?

Usually, no.

Because the charts are derived from average weights, lengths etc, individual children shouldn’t be expected to follow them exactly. They can and do grow faster or slower at times.

A large study in the US found that most infants (77%) aged from birth to 6 months crossed weight-for-age percentile lines, with 39% of infants either moving up or moving down two percentile lines. From birth to 6 months, larger babies tended to put on weight more slowly (on average) and smaller babies put on weight more quickly. This may be because birth size relates more to nutritional conditions in the womb than to genetic potential for growth. As this group of children got older, they were much less likely to cross two weight-for-age percentile lines, but it did still happen. See Table 1 for more detail.

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage of infants and children crossing 2 percentile lines – weight-for-age</th>
<th>Percentage of infants and children crossing 2 percentile lines – weight-for-height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to 6 months</td>
<td>39%</td>
<td>62%</td>
</tr>
<tr>
<td>6 to 24 months</td>
<td>6–15%</td>
<td>20–27%</td>
</tr>
<tr>
<td>24 to 60 months</td>
<td>1–5%</td>
<td>6–15</td>
</tr>
</tbody>
</table>

My baby has had persistently low weight gains. Is my baby getting enough breastmilk?

Many mums who are worried that their baby is not gaining enough weight are also worried that their baby is not getting enough breastmilk.

These are some reliable signs of adequate milk intake.

Remember - what goes in must come out:

- After 5 days of age a minimum of 5 heavily-wet disposable, or 6-8 very wet cloth nappies, in 24 hours.
- Pale urine (wee). If your baby’s urine is dark and smelly, this is a sign that your baby is not taking in enough milk.
- Good-sized, soft poos. Under the age of 6-8 weeks, your baby should have two or more runny poos a day, about the size of the palm of your baby's hand. After this age, it can be quite normal for a baby to poo less often, even once every 7-10 days, as long as when your baby does a poo, there is a large amount of soft or runny poo coming out!

In addition to the 'what goes in must come out' signs above, other reliable signs that result from an adequate milk intake in a healthy baby are:

- Baby has some weight gain after the initial weight loss soon after birth, and some growth in length and head circumference. (Are your baby's clothes getting snugger?)
- Baby looks like she fits in her skin - with good skin colour and muscle tone.
- Baby is meeting developmental milestones.

For more information about how to tell if your baby is getting enough milk, refer to the article https://www.breastfeeding.asn.au/bf-info/common-concerns%E2%80%93mum/supply
My baby is getting enough breastmilk. What's causing the low weight gains?

If your baby appears to be underweight, with wrinkly, loose skin and yet has a good nappy count indicating enough milk intake, it may be that your baby has an underlying medical condition which is causing a slow weight gain. There are many conditions which could affect weight gain. Some of the common ones include:

- infection (anything from a cold to a urinary infection)
- vomiting or frequent possetting (eg pyloric stenosis or severe reflux) - can mean a baby does not retain enough milk to grow
- a sensitivity to foods in the mother's diet could be a cause of low weight gain (usually along with other symptoms, such as 'colic').

Your medical adviser will be able to help you investigate these and other areas.

My baby is getting enough breastmilk. Is my baby just meant to be small?

Some adults are naturally petite and so are some babies. If your baby appears to be happy and healthy, is meeting developmental milestones, does not appear underweight (does not have loose wrinkly skin) and has a good wet/pooy nappy count, then your baby's low weight gains may be due to family factors (genetics).

I think my baby is NOT getting enough breastmilk. What can I do?

- Is your baby feeding often enough? The simplest and most effective way to increase your baby's milk intake is to breastfeed more often. Babies need at least 6 feeds in 24 hours in the first few months. For most babies, 6 will not be enough; they need 8-12 feeds in 24 hours (or more) to take in enough milk.
- More frequent feeding also means your breasts are relatively 'emptier' (they are never completely empty), which means that your breasts will speed up milk production, increasing your milk supply. For more information on how to increase your milk supply refer to the article Low Supply, or refer to the Australian Breastfeeding Association booklet, Increasing Your Supply, available for purchase from the Australian Breastfeeding Association.
- Is your baby feeding for long enough to get a balanced feed? The fat content of your breastmilk steadily rises and usually doubles from the beginning to the end of the feed. If you let your baby decide how long to feed, he will usually be getting enough of both the breastmilk and the fat that he needs.
- Have you only been offering one breast per feed? Some babies only need one breast per feed, other babies need both. Some babies start off just needing one and change as they grow older. You could try offering your baby the second breast.
- Try offering top-up breastfeeds 20-60 minutes after your baby's normal breastfeeds.
- Is your baby sleeping longer at night? Long night sleeps (and therefore missed feeds) can also decrease your baby's milk intake and weight gain. You might consider waking your baby during the night to feed or fit in extra daytime feeds.
- Is your baby attaching and suckling effectively? Babies who are failing to thrive may have a poor sucking action, so they don’t empty and stimulate your breasts enough. Face-to-face assessment of this by an International Board Certified Lactation Consultant (IBCLC) or Australian Breastfeeding Association counsellor can be very useful. You can find an IBCLC near you at this website: Find a Lactation Consultant.
- Does your baby have a tongue-tie? This can lead to poor attachment and mean that they cannot drain the breast effectively. An IBCLC can also check for this. In many cases the tongue-tie is snipped, leading to much more effective feeding for the baby and more comfortable feeding for the mum.
- Have you been using a nipple shield? Provided a nipple shield is used properly, it should not cause supply problems. However, if your baby's weight gains continue to be low, it could be that your baby is not transferring milk well through the shield. Consult a lactation consultant or an Australian Breastfeeding Association counsellor to check that your baby is attached properly on the shield. If you baby cannot feed well without the shield, you will also need to express your milk to protect your milk supply and to provide more milk for your baby.

What are developmental milestones?

Developmental milestones are normal skills and abilities that infants and children acquire as they grow. These include events such as smiling for the first time, turning their head towards a sound, bringing their hand to their mouth, holding their head steadily without support, rolling from tummy to back and taking a first step.
Developmental milestones tend to appear in a predictable order and the following links take you to information about what kind of milestones to expect at each age.

0-3 months, 3-6 months, 6-9 months, 9-12 months, 1-2 years,

**My baby was gaining weight well and now all of a sudden things have slowed down. What's going on?**

- Have there been any changes in your baby's behaviour? For example has your baby been taking fewer feeds as a result of sleeping longer at night?
- Have you been trying to feed at set times instead of when the baby indicates?
- Have you (the mother) been stressed or unwell? For some women this can cause a temporary dip in supply.
- Have you just started a new medication such as the contraceptive pill? Could you be pregnant? These factors can cause a dip in your supply.
- Has your baby been ill? Even a small cold can disrupt feeding and weight gain for a week or two.
- Has your baby previously gained well and is now slowing down normally? It is very normal for an exclusively breastfed baby's weight gain to slow down at 3-4 months. The World Health Organization child growth standards, based on healthy breastfed babies, help demonstrate this.

In most cases of sudden weight change, a ‘wait-and-see’ approach is justified if your baby seems happy and the other indicators of growth and health are fine. If there seems to be a temporary low supply problem, offering a couple of extra breastfeeds a day can help avoid a more serious situation. If you are concerned, see a medical advisor.

**References**


**Last reviewed:**

Aug 2016

Weight-for-height BOYS

2 to 5 years (percentiles)