



# Feeding Babies with the Bottle

Advice from UNICEF Switzerland

**Publication details**

Published by: Swiss Committee for UNICEF

Postal address: UNICEF Schweiz, Pfingstweidstrasse 10, CH-8005 Zurich

The information in this brochure is based on publications by UNICEF Great Britain and the German Federal Centre for Health Education (BZgA) and in coordination with the Swiss Federal Office of Public Health and the Swiss Paediatric Nutrition Commission.

**Acknowledgements**

Our thanks to Dr. med. Cornelia Conzelmann for gathering the information and the Expert Swiss Advisory Committee for the Promotion of Breastfeeding led by Frau Dr. med. Katharina Quack Lötscher MPH, for the expert support.

## Foreword

The nine months in the mother's womb and early childhood are among the most important periods in every person's development. At that early stage, the tone is set for the future and the child's health. Based on the Convention on the Rights of the Child, UNICEF and the World Health Organisation (WHO) have dedicated themselves to protecting children especially during the first period after their birth. That includes professionally supporting, advising and supervising mothers on all aspects of child-birth. The aim is to support the key mother-child relationship and strengthen the physical and psychological health of the mother, baby and entire family. Every child has the right to the best possible start in life. Nutrition plays a key role in that respect. The WHO considers mother's milk in the first half year, together with the parallel introduction of supplementary food in the period after the first six months, to be the ideal way to feed infants. It provides all the important nutrients and is naturally healthy. Not all mothers can or wish to breastfeed their children. Some parents choose the baby bottle and some combine breastfeeding with additional baby milk. Milk products for infants are high-quality foods with ingredients that provide the nutritional requirements of babies. This brochure presents information on how to choose the right baby milk for your child, how to prepare it and what you should also pay attention to. Don't hesitate to ask your midwife, parental consultant, breastfeeding advisor, paediatrician or general practitioner if you require further information or advice.

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# 1. Which milk for the baby?

Products replacing mother's milk are tailored to the relevant age and situation. They can be bought as «baby milk» from wholesalers, in drug stores, pharmacies and health food stores. The detailed product description provides insight into the functions it fulfils.

## **Infant formula**

Infant formula is milk that the child can consume from birth onwards. The majority of industrially produced infant formula products are based on cow's milk. They are processed to make it digestible for newly born babies and infants. Such infant's first formula milk is the only food required in the first six months or in addition to mother's milk. You should not give your baby anything else, unless recommended to do so by your midwife, parents' consultant or general practitioner/paediatrician.

After five months at the earliest and no later than at the start of the seventh month, you can gradually add solid foods while continuing with the infant

formula. As soon as a child is one year old, it can digest normal, pasteurised whole milk from cows.

Various companies produce infant formula baby milk. Generally, it is labelled on the pack as «infant formula» or «starter milk».

All brands have a similar quality. If you have the impression that your child does not react well to a specific product, try a different brand and ask your midwife, parents' consultant or paediatrician/general practitioner.

### **Follow-up formula**

Baby milk for older infants is called «follow-up milk». The producers recommend it from babies over the age of six months. Generally, it contains more casein proteins than the infant formula, which is supposed to make it more filling. However, there is no proof that children who receive follow-up milk sleep more quickly or longer. Without the recommendation of an expert, it is not necessary to switch to such milk. Babies can drink infant formula milk until they are one year old.

**Pay attention** not to mistake infant formula for follow-up formula milk, since the packaging can look very similar. Children younger than six months should not drink follow-up milk. Normally, the packaging is clearly labelled and indicates the required minimum age of the child.

### **Hypoallergenic milk**

Hypoallergenic milk was developed for children who have a higher allergy risk due to inherited allergy issues. Hypoallergenic baby milk products are sold with the label «HA» or «hypoallergenic». These products, which are available as infant formula and as follow-up formula, have been treated to change the cow's milk protein molecules to create fewer allergic reactions. However, hypoallergenic milk is not suitable for children who are already known to have an allergy against cow's milk. If you suspect that your child is allergic to infant's food made from cow's milk, discuss this with your paediatrician. Special milk can be prescribed for babies with an allergy against cow's milk.

## Other milk products

Be careful with all other milk products apart from those described above.

Above all, you should not give your child any products based on soya, unless your paediatrician or a nutritional consultant explicitly advises you to do so. The following milk products should not be consumed by children under the age of one year:

- Sheep's milk
- Cow's milk
- Standard soya milk – unless your doctor prescribes an infant's formula based on soya
- Rice, barley or almond milk
- Standard whole milk powder
- Condensed milk

## Infant's milk in the first year of life

Infant formula milk is all your child needs until it is six months old unless an expert recommends something else.

From the beginning of the fifth month, solids can be added as a supplement. This should start no later than at the beginning of the seventh month. Even after starting with solids, you can continue to feed infant formula until the child is one year old.

## 2. Handling the teat and bottle

Like the milk, there is a large range of baby bottles and teats by various manufacturers on offer. When preparing baby milk, good hygiene and correct amounts are the highest priority.

### **Choice of teat and bottle**

Bottle teats are made of rubber, latex or silicon. The form of the teat varies. There is no evidence that a specific type is more suitable than others. Try different teats to find out which suits your baby best. Baby bottles are made of glass or plastic. The material for all plastic bottles has been approved for foodstuffs. Choose a bottle that you can clean as easily as possible.

### **Preparing the teat and bottle**

Clean the empty bottle immediately after the meal with tap water and a little washing up liquid. Take a bottle brush that you only use for baby bottles. The teat should also be rinsed thoroughly and boiled once a day. You can also clean bottles and teats in the dishwasher. To dry the bottle, place it upside down on a clean cloth. Then cover the bottles and teats until their next use, ideally with a freshly washed kitchen towel. It is sensible to boil the bottle if you intend to take dry milk powder in the bottle for later preparation. When using warm-water bottle warmers, you should clean the machine every twelve hours and change the water.



## Preparing the milk

Every baby milk packaging includes instructions on how to prepare the milk meal. Stick closely to the quantities of milk powder and water and use the supplied measuring spoon. If you add too much powder, the nutritional content of the milk will be too high. That can have a negative effect on the baby's water balance and kidneys and lead to over-feeding. In the case of too little powder or too much water, malnutrition is possible.

- When preparing the milk, only use fresh, cold tap water. First run the tap for a few seconds until the water from the tap is noticeably cooler.

**Attention:** Do not use warm water from the tap or standard water filters.

They can increase both the number of germs and the concentration of foreign substances in the meal.

- Warm the water in a pan or water cooker and boil it for around one minute.

## Prevent bacteria and avoid mineral salts

Because the water has a temperature of at least 70 degrees C when it is mixed with the milk powder, it kills any significant bacteria.

It is not recommended to use bottled mineral water since it may contain too many mineral salts. If you still use bottled water, it should also be heated to at least 70 degrees C before mixing it with powdered milk.

- According to the WHO recommendation, allow the water to cool to around 70 degrees C.

- Add the water to the bottle and mix the indicated amount of milk powder into it.

**Attention:** only use the measuring spoon supplied in that packaging and do not heap the spoon. It is best to use the blunt edge of a knife to remove excess powder from the spoon.

- Screw the teat onto the bottle and fasten the lid. Tilt the bottle back and forth a few times and then allow it to stand for a while to let the powder dissolve.

- Allow the baby milk to cool further and check the warmth of the bottle by holding it against your cheek or on the inside of your forearm. The drinking temperature is body temperature, 37 degrees C.

- The infant's milk is now ready.

### **Hygiene: Top priority**

The high standard of hygiene for infant's food can only be maintained if you prepare the baby milk immediately before the meal, ideally with freshly washed hands. Do not use left-overs and dispose of them. If your child drinks slowly, you can reheat the bottle after a while. A freshly prepared milk meal should be stored for a maximum period of two hours at room temperature. Never drink from the bottle yourself to check the temperature. You could pass on tooth decay bacteria to your child, even though it has no teeth yet. Close the opened milk powder pack firmly and store it in a dry place.

## Storage and warming up

Bacteria multiply very quickly at room temperature. The risk of infection is lowest when the baby bottle is freshly prepared. If you need to prepare a milk meal for later, for instance for a crèche or the day care nurse, follow the instructions below:

- Boil the individual parts of the milk bottle for around ten minutes.
- Boil the water for the mixture and allow it to cool to around 70 degrees C.
- Pour the water into the bottle after it has been boiled, add the correct amount of milk powder, close the bottle with the teat, ring and lid and shake the mixture.
- Cool the bottle with the baby milk quickly in a cold water bath. It can be stored in the refrigerator for a maximum of 24 hours.

### Maximum storage times for prepared baby milk

At room temperature: 2 hours

In a cooler bag with a cooling element: 4 hours

In the refrigerator (not the refrigerator door): 24 hours

### Microwave unsuitable!

Never use a microwave oven to warm up cooled baby milk.

There is a risk of overheating the liquid. So-called hotspots of overheated milk can occur in microwave appliances. The baby may be scalded when it touches the bottle with its mouth.

- If you need to transport a prepared bottle of baby milk, you should prepare it at home and cool it for at least one hour in the refrigerator. Use a cooler bag with cooling elements to transport the bottle. The baby milk should then be consumed within four hours.

- A bottle of baby milk can only be stored at room temperature for a maximum of two hours.

- As soon as you want to give your baby the bottle, place it in a container of warm water. Always check the temperature on the inside of your wrist. That ensures that the milk is not too hot when you give it to the baby.

### **Travelling with the baby bottle**

Even when you are travelling with your child, it is possible to prepare infant's milk in a safe, fresh and quick way:

- Boil the parts of the bottle and the teat at home and allow everything to dry well.

- Add the right amount of milk powder to the dry bottle and screw the bottle together with the protective lid and cap.

- You can also take the milk powder with you in a separate, clean, dry container.

- Take freshly boiled water with you in a thermos flask.

- Only prepare the infant's milk when your baby needs it.

### 3. Enjoying meals together

Milk meals are important moments for parents and the child, regardless whether the mother or father feeds the baby: it enjoys the milk and the closeness to its parents.

Ideally, ensure a loving, peaceful atmosphere and keep the baby as close to the body as possible. If possible, let the child feel the skin of your upper body. Keep eye contact during the meal.

- Try to hold your baby as upright as possible and support its head in a comfortable, neutral position.

- Touch your child's lips with the teat of the bottle. As soon as it opens its mouth widely, help it to suck in the teat.

- Hold the bottle almost horizontally and tilt it only as much to allow the teat to fill with milk. Babies drink in phases with short interruptions. By not holding the bottle too steeply, you prevent the milk from flowing out when the baby is taking a break.

- While your baby is drinking, bubbles become visible in the bottle. If that is not the case, interrupt the vacuum from time to time by moving the teat gently to the corner of the mouth. That should cause a new set of bubbles to form inside the bottle.

- Your baby needs short breaks while drinking. It may need to belch. If your baby shows signs of unease while feeding, help it to gently release the teat. Hold the child upright or over your shoulder. Observe whether it can belch. Continue feeding as soon as the child feels better.

- After half the meal, hold the child on your other arm. The change of sides is good for the psychomotor development of the child.

- Interrupt the meal occasionally. That gives your baby the chance to perceive how full it already is and allows it to regulate its intake of food.

- During a meal, your baby should always be held in your arms and never left alone.

Naturally, other people apart from the mother and father can bottle feed the baby. But try to keep the number of those people small, to allow the baby to develop a relationship with the caring person.

### **How often, how much?**

Give your baby the bottle as often as it demands it. If your child regularly spits out significant amounts, it may mean that it requires smaller amounts of milk per meal, but more frequently.

Newly born infants usually only drink small amounts. From the second week onwards, they generally require around 150 to 200 millimetres per kilogram per day. That rule applies until the baby is six months old. There are of course individual differences.

### **Avoid over-feeding**

Larger amounts per meal do not necessarily mean longer pauses between meals. Instead, consuming too much milk can lead to nausea or obesity. You should therefore not force a child to drink the entire bottle if it does not want to.

### **Is the baby hungry?**

Every infant shows when it is hungry. You too will soon observe the typical signs that your baby is hungry. Feeding is easiest if you react to the signs before the child has started to cry.

- When the baby wakes up, it starts to move. That is the moment to begin preparing the milk.
- Later, the baby will move its head back and forth; it may also suck its fingers.

Babies cry for a variety of reasons. If your baby has just been fed, it is unlikely the baby is hungry.

### **Is the baby getting enough?**

Weight gains and the number of wet or soiled diapers are good indicators whether a baby is receiving enough food:

- A few days after birth your child should have around six wet diapers a day. The diapers should be wet with clear or light yellow urine.
- During the first few days after the birth, the baby excretes dark, sticky stools called meconium. After the first week of life, your baby should have light brown or yellowish brown stools in the diaper.
- Each child has different bowel activity. Generally, babies fed by the bottle have slightly fewer stools than breastfed children. Their stool has a firmer consistency. Ask your midwife or parents' consultant if the number of stools varies greatly or if your child shows uneasiness or must press hard during bowel movements.

- Your baby is weighed regularly after the birth, during the puerperium and later by the midwife, parents' consultant, breastfeeding advisor or paediatrician. The results are entered into the growth curve in the health book and discussed with you.

If you have any questions regarding the weight of your child or are concerned, talk to an expert.



### **How to handle constipation**

The problem can mostly be solved by paying even more attention to the correct dosage when preparing the milk. You may have to change the brand. Ask for advice from your parents' consultant.

### **Old enough for solid food?**

After a few months, babies can hear, see and mumble very actively, wrapping everyone around their little finger with their charm. As they grow and develop, their eating rhythm and sleeping habits also change. But that does not mean that the child needs different milk or solid food. No earlier than the beginning of the fifth month and no later than the start of the seventh month, you can begin to introduce solids such as mashed vegetables, fruit and cereals. Small amounts of pasteurised cow's milk or unsweetened yogurt can be used to prepare the mash. Continue to give the child the usual infant's formula milk to drink. Children should only receive cow's milk to drink when they are more than a year old.

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