

Safety in Bottle feeding and Safe Preparation

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Infants are born with a natural immune system from their mothers. The effectiveness of this natural immune system drops significantly over the first two months, until after 8 weeks infants begin to build up their own immune resistance to pathogenic diseases. However, during this time, their immune resistance is very weak compared with that of an adult, their being especially vulnerable to bacteria which cause diarrhoea. It is for this reason that extra care should be taken with regards to bottle feeding, sterilisation and basic hygiene practises. This special care is necessary until they are 18 months of age.

Milk is an ideal breeding site for infection-causing bacteria, the warm temperature, humidity and good nutrition of milk allow the bacteria to thrive. The number of bacteria on bottles and teats is far greater than on toys and general household goods. Through thorough cleaning and sterilisation of the utensils used for infant feeding the presence of these bacteria can be eliminated.

Personal hygiene:

1. Clean hands:

Always wash your hands

- After using the toilet;
- After cleaning the baby's bottom; after disposing of stools and after washing nappies and soiled cloths;
- Before preparing or serving food;
- Before feeding children and before meals.

It is important to wash your hands thoroughly

- With soap
- With plenty of clean running water or poured water;
- Front, back, between the fingers, under the nails.

Let your hands dry in the air or dry them with a clean cloth. It is best not to dry them on your clothing or a shared towel.

Cleaning method:

1. Clean utensils:

Keep both the utensils that you use, and the surface on which you prepare feeds, as clean as possible.

- Use a clean table or mat, that you can clean each time you use it.
- Rub teats with salt to remove milk residue. Rinse well with cold water.
- Wash utensils with cold water immediately after use to remove milk before it dries, and then wash with hot water and soap. Use a soft bottle brush to reach all the corners; rinse thoroughly.

- There are a number of sterilising methods one can use including boiling, chemicals, steam and the microwave. Use a specific sterilising unit or non-metallic container.
- When using a chemical method immerse utensils completely in solution. Full sterilisation is complete after approximately 30 minutes. Leave in solution until next feed. A new chemical solution should be made every 24 hours. Once a commercial chemical sterilisation method has been followed, articles can be removed and do not need to be rinsed. The chemical residue left on the teat and in the bottle is neutralised when it comes into contact with protein i.e. milk and saliva. Re-contamination is reduced by the continuous storage method.
- Keep utensils covered to keep off insects and dust until you use them.

Preparation of feed

1. Safe water and food:

Safe water and food are especially important for infants.

- a. Bring the water to a rolling boil briefly before use. This will kill most harmful micro-organisms. (A rolling boil is when the surface of the water is moving vigorously. It only has to "roll" for a second or two.)
- b. Put the boiled water in a clean, covered container and allow to cool to room temperature and then place into the bottle. If the water has been stored for more than a day, re-boil it before use.

2. Mixing and safe storage:

Before using any formula, always check the date on the bottom of the tin to ensure it has not passed its expiry date. One should also:

- i. Use the formula powder within one month of opening the tin.
- ii. Follow the manufacturer's instructions strictly when making up formula; accuracy is important to make sure your baby receives the correct nutrition.
- iii. Always wash hands thoroughly before preparing formula and ensure your preparation area is clean.
- iv. Use cooled, boiled water only. Very hot water will destroy many of the nutrients in the formula.
- v. Pour the recommended amount of water into the bottle.
- vi. Use the enclosed spoon to measure the exact amount of formula. Level the powder with a sterilised knife or straight-

edged spatula. Add formula to the bottle of cooled, boiled water.

- vii. Place the disc and cap on the bottle, and shake until the formula is thoroughly mixed.
- viii. Store the made up bottle of formula in the back of the fridge where it is coolest or in a cool dark area in the kitchen, tightly sealed and away from dirt and dust.
- ix. Discard the scoop that was provided with the tin of formula when the tin is empty; a new scoop is provided in each new tin of formula purchased.
- x. Read the instructions carefully if you change formula brands to ensure you use the correct amount of water and powder.

Safe storage of food is also important

- a. Keep food tightly covered, to stop insects and dirt getting into it.
- b. Food can be kept longer when it is in a dry form, than when it is liquid or semi-liquid.
- c. For an infant, the milk bottle must be warmed in boiled water and then used within an hour of warming. It is not safe to keep formula or milk in a thermos flask as bacteria grow when milk is kept warm.
- d. Discard any left over formula following the feed. Never offer the infant leftover formula at the next feed. It can grow bacteria that may make baby ill.

Feeding the Infant:

- Never leave baby unattended while feeding. Besides the possibility of choking, it is advisable to observe changes in preferences and feeding habits and also strengthens the mother-infant bond. Infants should be fed on alternate sides to ensure a balance as is common practice in breastfed infants.
- Never feed baby while they are asleep or lying down. Until the child can sit up and hold his or her own bottle, hold baby semi-upright. This way you can make sure that the liquid flows directly down the throat, not into the nose (which can cause ear infections) or into the lungs, making baby choke.
- Always check the temperature of a bottle's contents before giving it to the baby. In most cases, it needs only to be at room temperature – that is, it should feel slightly warm (not hot!), on the skin.

By following these basic hygiene and preparation of infant formula practices the nutritional status of infants can be improved.