

# Preparing Infant Formula and the Use of Bottles

## Appropriate Bottles to Use

1. Choose bottles that are Bisphenol-free (BPA) and nipples that are latex-free.
2. Choose a bottle shape that allows you to feed baby without having to put him on his back, in elevated side-lying or sitting upright posture.
3. Choose a nipple that allows baby to control the flow and uses sucking rather than squeezing to get the milk out. Softer nipples and those with air valves that prevent air pressure from building up in the bottle help with that. A baby should be able to get all the volume needed in 15-20 minutes. Test the bottle by putting some water in it and turning on its side. It should drip no faster than 1 drop per second. Squeeze the nipple with your fingers. If it squirts out easily, baby will be tempted to bite rather than suck.
4. The flow rate of a bottle depends on the size of the hole in the nipple AND the strength of baby's suck. You may have to experiment with different brands to find one that is appropriate for your baby. Bottles that flow too fast contribute to gassiness, over-eating and spitting up.
5. Nipple holes expand over time. Replace nipples frequently as they age.

## Appropriate Formula and Preparation

1. All store-bought formulas must meet minimum requirements set out by the FDA. Unless your baby is allergic or has special needs, any one should be fine. Ask your pediatrician if you have questions.
2. Babies under 2 months and premature babies do not make their own antibodies and are more susceptible to infections. The World Health Organization recommends that babies of this age be given liquid formula. These are packaged after preparation and heat processed to kill bacteria. Powdered formulas cannot be heat processed after packaging.
3. If your baby is older and you are using powdered formula, here are the recommendations from the FDA.
  - a. Use a safe source of water (tap water is generally OK, drawn from the cold side).
  - b. Bring water to a boil, turn off heat, cover pot and cool for 30 minutes. This will result in a temperature of about 165 deg. Prepare formula as directed, adding the powder to the correct amount of water, not water to powder. Shake or stir to mix powder and water.
  - c. Allow prepared formula to cool in the refrigerator to appropriate temperature before serving. Test on the inside of your arm before giving to baby.
  - d. If preparing large amounts of formula, reheat individual amounts to room temperature before serving. DO NOT use microwave to heat as this destroys vitamin C and can leave hot spots causing burns in baby's mouth!
  - e. ***Do not store the measuring scoop in the can of formula or touch the formula as this can contaminate it.*** Discard opened cans of powder after one month.
4. A formula feeding should take no more than 30 minutes. Left-over formula should be discarded. Don't leave prepared formula out of the refrigerator more than 45 minutes before using as bacteria levels grow rapidly.

## Cleaning Bottles and Formula Preparation Equipment

1. WHO recommends that mothers use freshly sterilized bottles and nipples for each feeding. This helps prevent bacterial growth in the formula.
2. Bottles and nipple should be washed and scrubbed with a brush before sterilizing. Sterilizing can be done by boiling 10 minutes or microwave steam sterilization. See individual manufacturer's instructions.

