Seven steps to safe preparation of infant formula

Parents should follow these seven steps to make sure they are measuring infant formula correctly, storing it properly, and keeping the utensils clean:

1. **Check the expiration date and condition of the container.**
   - Do not purchase or use infant formula with a “use by” or expiration date that has passed, because the quality of the product cannot be ensured.
   - Inspect the container for any bulges, dents, leaks, or rust spots; the formula in a damaged container may be unsafe.
   - Clean the formula container by washing the top with soap and water before opening and rinsing well.
   - Wash the can opener with soap and water, and dry it before opening the formula can.

2. **Wash hands and clean preparation surfaces.**
   - Wash hands thoroughly before preparing infant formula, especially after using the toilet or changing a diaper.
   - Use warm running water and rub hands vigorously with soap for at least 20 seconds.
   - Make sure to wash under fingernails and between fingers.

3. **Prepare the bottle.**
   - Sterilize bottles, nipples, caps, and rings before using them for the first time. Boil in water for five minutes in a pot deep enough so that water covers all the pieces. Remove the pieces from the pot with tongs, and let them air-dry.
   - After the first use, sterilization is not necessary but the items should be washed with soap and water and allowed to air-dry.
   - Bottles and other parts can also be washed in the dishwasher; dishwasher-safe baskets are available to hold these items.
   - When preparing formula in the bottle, a liquid measuring cup should be used to make sure the measurements are accurate, especially if drop-in liners are used.

4. **Add water to liquid-concentrate formula.**
   - Follow the manufacturer's instructions for how much water to use. Adding too little water can put a burden on the baby’s digestive system, and adding too much might dilute the formula and deny the baby needed calories and nutrients.
   - Use any type of clean water—tap or bottled—but consider sterilizing it before adding it to the bottle, especially if you use private well water.
   - If lead or other contamination is a concern, let tap water run until it is as cold as it will get and then boil it in a pan for one or two minutes; let the water cool to no lower than 158°F (70°C), and pour in the amount needed.

5. **Measure the formula.**
   - For liquid-concentrate formula:
     - Shake the container well before opening.

   - Pour the amount of formula for one serving into the bottle, which already contains the appropriate amount of water.
   - Attach the nipple and cap, and shake well.
   - For powdered formula:
     - Add water first.
     - Use the scoop that came with the formula container; make sure the scoop is dry.
     - Follow the instructions on the container to determine the amount of formula to prepare, and note the number of scoops required. Note that the total volume of formula may be slightly more than originally measured.
     - Fill the scoop with powdered formula, shaving off any excess formula using the flat side of a knife, not a spoon or other curved surface.
     - Pour the powdered formula into the bottle.
     - Attach the nipple and cap, and shake well.

6. **Warm the formula, if needed.**
   - Do not warm bottles in the microwave. The formula might heat unevenly and create hot spots that could burn the baby’s mouth.
   - If the baby prefers warm formula (feeding formula at room temperature or even cold is acceptable):
     - Place a filled bottle in a bowl or pan of hot, but not boiling, water, and let it stand for a few minutes. Or, warm the bottle under running water.
     - Shake the bottle after warming it.
     - Turn the bottle upside down, and test one or two drops of formula on your wrist or the back of your hand.
     - The formula should feel lukewarm rather than hot.
   - Shake the bottle well, and feed the formula to the baby immediately. Discard any formula that remains in the bottle after a feeding.

7. **Store formula safely.**
   - Store unopened containers of formula in a cool, dry place.
   - Do not store formula containers outdoors or in a car or garage, where temperature extremes can affect the quality of the formula.
   - Do not store formula containers near or next to such products as bags of dry pet food that could contaminate the lid of the formula container.
   - Cover and refrigerate any leftover ready-to-use formula from a freshly opened container. Discard any leftover formula that has been in the refrigerator more than 48 hours.