What is required for a bottle teat to be used safely in combination with direct breastfeeding?

- The bottle teat can be used safely in combination with direct breastfeeding, which enables the infant to smoothly transition back to direct breastfeeding any time.

Promotes tongue movement similar to direct breastfeeding

Material selection and design based on extensive research.

Supports returning to direct breastfeeding

... and breastfeeding mothers all around the world.

SofTouch™ Peristaltic PLUS Series was developed based on intensive research on the “three key factors of sucking” to support breastfeeding mothers all around the world.

1. Attachment (Latch on)
   - When the infant latches on to the nipple, the mouth opens wide and the lips curl outwards. This enables a tight seal over the nipple and the areola, creating the negative pressure inside the oral cavity required for sucking.

2. Peristaltic Tongue Movement
   - The infant’s tongue moves in a wave-like motion over the nipple to suck breast milk. This is called peristaltic movement, and is derived from innate primary behaviors.

3. Swallowing
   - Infants swallow breast milk down to the esophagus, breathing at the same time as the tongue moves. Excessive milk burdens infants with swallowing difficulties, resulting in choking.

SofTouch™ Peristaltic PLUS Series/Nursing Bottle

- Supports returning to direct breastfeeding
- Material: Silicone rubber
- A research-based innovation designed to enable infants to promote the natural sucking pattern learned at the breast.
- It accommodates the three key factors of sucking: attachment, peristaltic tongue movement, and swallowing.
- It helps smooth transition between breastfeeding and bottle-feeding.

SofTouch™ Peristaltic PLUS Series/Nipple

- Material: Silicon rubber
- SofTouch™ Peristaltic PLUS Nipple is 100% silicone, super soft, and flexible to promote a natural and smooth tongue movement.
- Air Ventilation System (AVS™) permits smooth and stress-free sucking.
- Bottle shape is easy to hold.
- Specially designed roll-free bottle hoods.
- BPA-free.

Sterilization Methods: Boiling, Steam, Chemical
Pigeon incorporated the "three key factors of sucking" into the design of bottle teats that promote a sucking motion similar to direct breastfeeding.

For successful combined feeding, the tongue movement used in direct breastfeeding must be promoted during bottle-feeding. Pigeon has investigated numerous materials and designs to develop just such teat.

Bottle teats that permit the baby to closely promote the tongue movement used in direct breastfeeding makes bottle feeding easier to combine with breastfeeding. For successful combined feeding, the tongue movement used in direct breastfeeding must be promoted during bottle-feeding. Pigeon has investigated numerous materials and designs to develop just such teat.

Newborns and infants can be fed in two ways. The first is direct breastfeeding, in which the infant directly sucks from the mother’s nipple, and the other is device-feeding, in which the infant is fed breast milk or formula from devices such as bottle teats. Sometimes, direct breastfeeding and bottle-feeding are used in combination. This is called "combined feeding".

When combined feeding works well, the device is used temporarily, and the infant can smoothly transition to direct breastfeeding.

However, when the infant becomes too accustomed to feeding from the device, return to direct breastfeeding can be difficult and sometimes lead to the refusal of the mother’s nipple. Pigeon has focused on the shape and material of the bottle teat, especially the shape of the teat tip as a factor that can inhibit successful combined feeding. We studied the nipple in the infant’s mouth during sucking, and how it relates to tongue movement.

In direct breastfeeding, ultrasonic images show that the top approximately 6mm of the nipple is compressed by tongue movement, and that the compression rate is higher than 50% (Fig.2). In the other hand, using a bottle teat, the compression rate of the teat by tongue movement varies according to the type of teat and the tongue movement observed in direct breastfeeding.

At the onset of the study, 30% of the infants rejected direct breastfeeding, and only 42% were able to consume more than 50% of the required intake. These results indicate that with appropriate support, newborns and infants can fully return to direct breastfeeding even after temporary use of bottle teats.

In a hospital in Moscow, temporarily weaning newborns and infants 1 to 10 weeks of age were monitored for 14 days, with doctors to determine whether they could completely return to breastfeeding using Pigeon nursing bottles. The potential to return completely to direct breastfeeding after the usage of bottle teats in temporary weaning is promoted by the safe and smaller than conventional teat using a softer silicone material.

In direct breastfeeding, as the tissues around the mother’s nipple are compressed, the nipple pattern more similar to direct breastfeeding, with approximately 50% compression at the tip and less compression in the area (5mm from the tip). The compression patterns of the improved bottle teat was similar to direct breastfeeding.

Comments of Specialist

Bottle-feeding is sometimes necessary because of issues arising with either mother or child, such as psychological and physiological problems, inability without mother, working mother, those moving to transplant, and other cases. However, it is important to continue breastfeeding in order to develop a strong bond with the baby. Because of this, we have been working on developing a bottle teat that is as similar as possible to breastfeeding. (Pediatrician, Philippines)

The challenges encountered in bottle feeding are difficult to emulate,ipple failure, risk of infection, high cost, and poor bottle quality. (Pediatrician, Philippines)