Pigeon's Breast Pump – Backed by extensive international research.

Soft fit cover

The soft silicone wings (air-tight ring) improve fit to the breast, and helps prevent air-leakage which can interrupts suction.

*Regular and large sizes available.

Preparation mode

Gentle stimulation promotes the let-down reflex, which alleviates burden on the mother.

Suction pressure and suction speed freely adjustable during expression

Suction pressure and suction speed can be freely adjusted during expression.
This responds to the individual needs of mothers, and supports sufficient volume of expression over a short time.

Electric Breast Pump Pro

For mothers who want to accommodate their own pumping style, which increases comfort

- Customizable pumping style : 7 adjustable levels of suction pressure with 4 adjustable suction speeds to choose from
- LED monitor : Easy to use and view

Manual Breast Pump

For mothers who like simplicity and fuss-free pumps

- Ergonomic easy-express handle : Reduces hand fatigue for comfortable and easy pumping
- Quiet, compact and lightweight : For a discreet pumping experience
- Simple and easy : Fewer parts, which makes it easy to assemble, use and clean

Electric Breast Pump Portable

For mothers on the go

- Adjustable suction pressure : 6 adjustable levels of suction pressure
- Portable and compact : For easy pumping anytime, anywhere
- Simple and easy : Fewer parts, which makes it easy to assemble, use and clean

Hand Expression Cup

For manual expressing by hand

- Wide socket facilitates receiving milk into the bottle

Comments of Mothers

- When the baby sucks, it can be sometimes be painful because he sucks strong, but with the preparation mode on the breast pump, even if my breasts are full, I can express milk smoothly without pain.
- There is a fit cover on the cup, so it doesn't come off easily, which is good.
- It's good how the expression time is displayed. Now I know how long it takes until let-down.

(Pigeon : New Electric Breast Pump FC Home Use Test, September 2014)

PIGEON
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Dedicated to the Benefits of Breastmilk

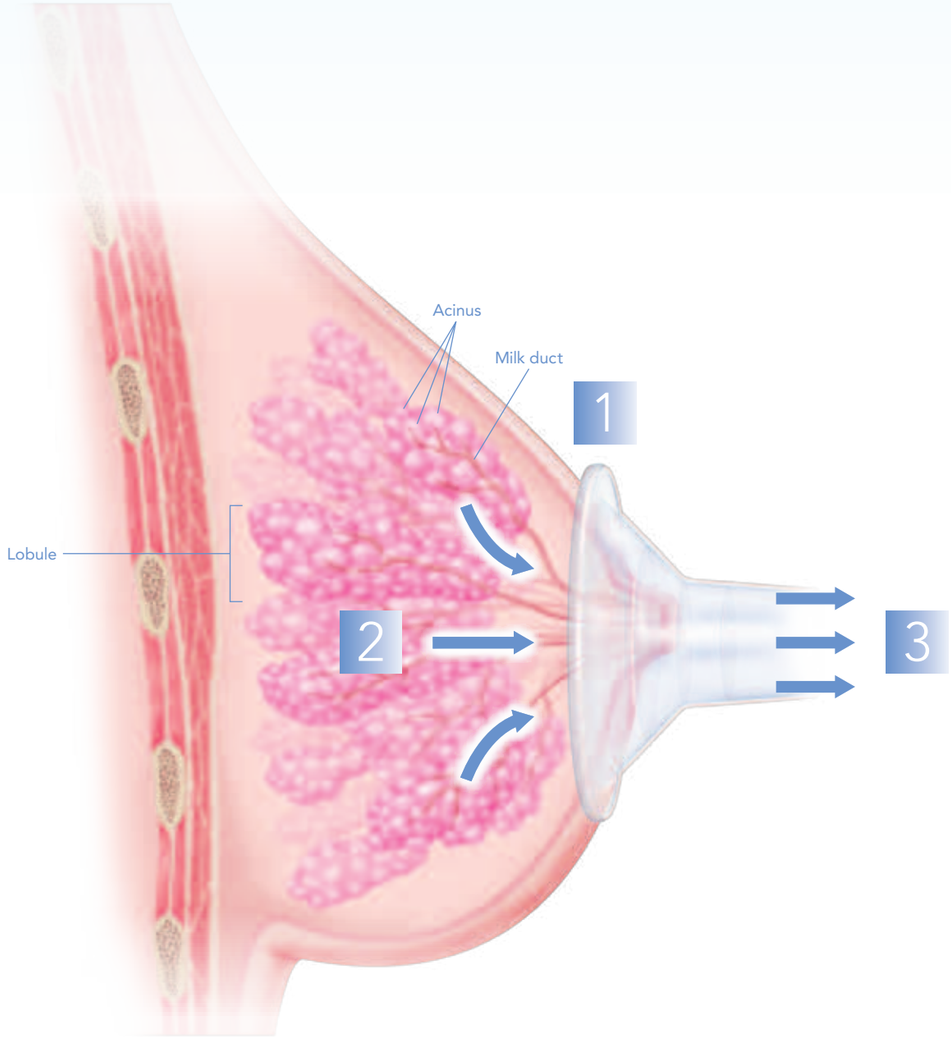
pigeon

What is an ideal breast pump?

Can pumping breast milk feel almost like direct breastfeeding?

Breast Pumps

Based on years of extensive research,
Pigeon's answer is to focus on the three steps
for pumping breast milk.



The three steps for developing breast pumps

1 Perfect Fit

If a breast pump does not fit the breast well, there's a risk of air leakage. This can cause discomfort to the mother. Improving breast pump fit helps prevent air leakage, allowing the mother to express milk comfortably.

2 Gentle Stimulation

Breast milk is secreted from the acinus cells, then flows through to the milk ducts. In this process, the let-down reflexes, generated by gentle stimulation, play the important roles to gather milk to the main duct which leads to the nipple.
By having this step before expression, it eases the burden on the mother and enables smooth expression.

3 Efficient Expression

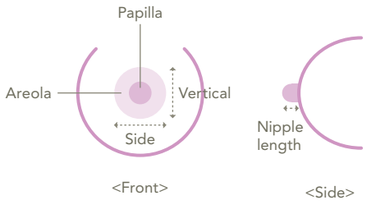
Every mother has a preferred suction pressure and speed during expression.
To respond to these varying needs and to enable efficient milk expression, the suction pressure and speed of the breast pump should be freely adjustable.

Pain and discomfort-free expression every day.
Pigeon began by improving fit to the breast to develop a breast pump that snugly fits the mother's needs.

1 The first step was understanding breast shape and size[1)2)]

Pigeon believes that perfecting fit is important not only in for the prevention of air leaks, which can interrupt expression, but to also provide optimal comfort to the mothers.
Therefore, we conducted extensive research on breasts of breastfeeding mothers.
In one study, the breast size, areola diameter, papilla diameter and nipple length were measured in mothers from several Asian countries, including Japan (Fig.1). This research demonstrated that although breast size, areola diameter, and nipple length varied according to race, the papilla diameter showed little variation, averaging 14-16mm (Fig.2). The data yielded by this research was incorporated into the design of the breast pump fit cover.

Fig.1 Breast parts measured

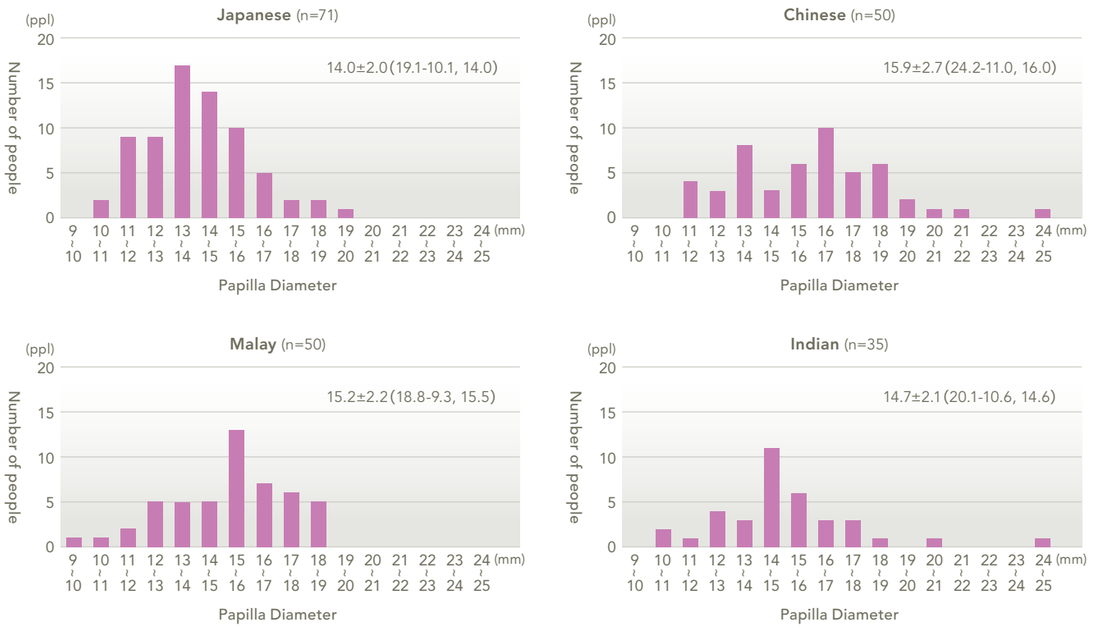


Subjects : 206 breastfeeding mothers (71 Japanese, 50 Chinese, 50 Malaysian, 35 Indian) *1
Method : Breast size (under-bust and top-bust) was determined using a tape measure, and areola diameter (right/left, vertical/horizontal), papilla diameter (right/left, vertical/horizontal) and nipple length were determined using a digital caliper.

*1 Japan : Breastfeeding mothers who live in Ibaraki prefecture registered under the Pigeon monitor registry[1)]
Others :

Fig.2 Distribution of papilla diameter according to race*2

*2 Average of each mother's right, left, vertical, and horizontal nipple measurements were compiled



The papilla diameter of breastfeeding mothers was approximately 14-16mm regardless of race.

2 Both slow and fast suction cycles were found to be effective as suction stimulation to induce milk flow[3)]

Two suction cycles (slow and fast) of the same suction pressure were compared to investigate differences in time until let-down. No significant difference was observed between the two groups. Although conventional wisdom states that quick cycles of suction stimulation are more effective at stimulating let-down reflexes, this study indicated that the influence of suction cycle speed is minimal.

Subjects : 10 breastfeeding mothers who live in Ibaraki prefecture registered under the Pigeon monitor registry[1)]
Method : Using electric breast pumps, 2 cycle patterns of the same suction pressure, approximately -60mmHg (8KPa), were tested to observe differences in let-down onset. Suction cycle (the length of time a breast is stimulated per cycle) for Pattern A was 1.7seconds/cycle (slow) and Pattern B was 0.5 seconds/cycle (fast). Patterns A and B were tested on different days, but at the same time of day.

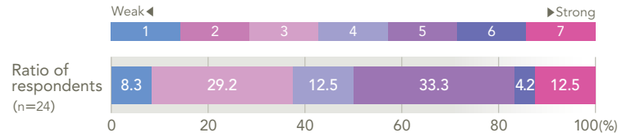
The influence of suction cycle speed on time until let-down is minimal.

3 Ideally, suction pressure and suction cycle should be adjustable[4)]

Research using electric breast pumps was conducted on mothers who express milk every day, and the usage experiences were assessed. The results demonstrated that mothers varied suction pressure (suction strength) and suction cycle (suction speed) during expression according to individual preference. Based on this finding, we concluded that suction pressure and frequency should be adjustable on an individual basis.

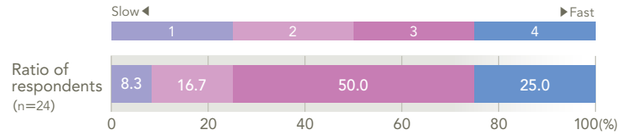
Subjects : 24 mothers who "Express milk more than once a day" and "50ml or more at each expression"
Mothers using breast pumps to remove excess milk were excluded
Method : Internet research. Pigeon's Electric Breast Pump Pro samples were sent to respondents, who answered questions regarding their usage preferences on the web after 10 days of use.

Q1. Which suction pressure did you prefer most in "Expression Mode"? (Select one)



Some mothers preferred weak suction pressure whereas other mothers preferred strong suction pressure.

Q2. Which speed of suction did you prefer in "Expression Mode"? (Select one)



Some mothers preferred slower suction cycles whereas other mothers preferred faster suction cycles.

References :
1) Hirata, Saito : 53rd Annual Meeting of Japan Society of Maternal Health, Poster Presentation, November 2012
2)
3) Hirata et al. : 56th Annual Meeting of Japan Society for Premature and Newborn Medicine, Poster Presentation, November 2011
4) Pigeon New Electric Breast Pump FC Home Use Test, September 2014

Ethical Considerations : For each study, the research objective was explained to the participants, and written consent was obtained before participation.

Comments of Specialist

- Common problems in breastfeeding are pain from breastfeeding, insufficient breast milk, time constraint, lack of family support and fatigue. One of the solutions to these problems is use of breast pumps and putting milk in a feeding bottle. (Pediatrician, Philippines)
- Breast pumps are beneficial for newborns at the hospital or NICU babies prior to discharge, for working moms, for babies who have trouble sucking or have weak suction, for babies and moms with latching issues, and for moms and/or babies with physical abnormalities. (Neonatologist, US)

(Pigeon : Research on Pediatricians, Lactation Consultants and Neonatologists in the US and Philippines Regarding Breastfeeding, 2014)