

# Manual Expression of Breastmilk: Marmet Technique



The Lactation Institute  
and Breastfeeding Clinic

The Marmet Technique of manual expression and assisting the **milk ejection reflex (MER)** has worked for thousands of mothers—in a way that nothing has before. Even experienced breastfeeding mothers who have been able to hand express will find that this method produces more milk. Mothers who have previously been able to express only a small amount, or none at all, get excellent results with this technique.

## TECHNIQUE IS IMPORTANT

When watching manual expression, the correct milking motion is difficult to see. In this case, the hand is quicker than the eye. Consequently, many mothers have found manual expression difficult—even after watching a demonstration or reading a brief description. Milk can be expressed when using less effective methods of hand expression. However, when used on a frequent and regular basis, these methods can easily lead to damaged breast tissue, bruised breasts, and even skin burns.

The Marmet technique of manual expression was developed by a mother who needed to express her milk over an extended period of time for medical reasons. She found that her **MER** did not work as well as when her baby breastfed, so she also developed a method of massage and stimulation to assist this reflex. The key to the success of this technique is the combination of the method of expression and this massage.

This technique is effective and should not cause problems. It can easily be learned by following this step-by-step guide. As with any manual skill, practice is important.

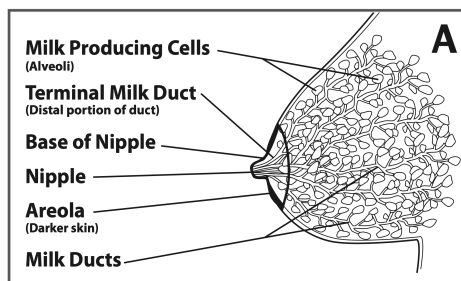
## ADVANTAGES

There are many advantages to manual expression over mechanical methods of milking the breasts:

- Some mechanical pumps cause discomfort and are ineffective.
- Many mothers are more comfortable with manual expression because it is more natural.
- Skin-to-skin contact is more stimulating than the feel of a plastic shield, so manual expression usually allows for a more effective **MER**.
- It's convenient.
- It's ecologically superior.
- It's portable. How can a mother forget her hands?
- Best of all, it's free!

## HOW THE BREAST MAKES MILK

The milk is produced in the alveoli (milk producing cells) on-demand in response to hormonal messaging and expels milk into the duct system (**MER**).

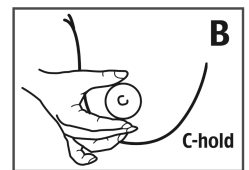


A small portion of the milk also flows down the ducts and collects in the terminal milk ducts (distal portion of lactiferous ducts) under the areola.

## EXPRESSING THE MILK

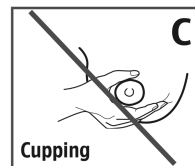
### DRAINING THE TERMINAL MILK DUCTS

1. **Position** the thumb and first two fingers on the breast about 1" to 1 1/4" (2.5 to 3.1 cm) behind the base of the nipple.



Use this measurement, which is not necessarily the outer edge of the areola, as a guide. The areola varies in size from one woman to another.

Place the thumb pad above the nipple at the 12 o'clock position and the finger pads below the nipple at the 6 o'clock position forming the letter "C" with the hand, as shown. This "C-hold" is a resting position.



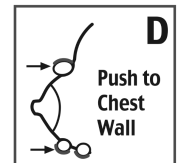
Note that the thumb and fingers are positioned so that they are in line with the nipple.

**Avoid cupping the breast.**

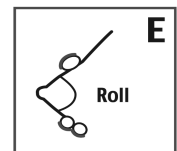
2. **Push** straight into the chest wall.

Avoid spreading the fingers apart.

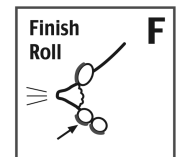
For large breasts, first lift and then push into the chest wall.



3. **Roll** thumb forward as if making a thumbprint. Change finger pressure from middle finger to index finger as the thumb rolls forward.



Finish roll. The rolling motion of the thumb simulates the wavelike motion of the baby's tongue.

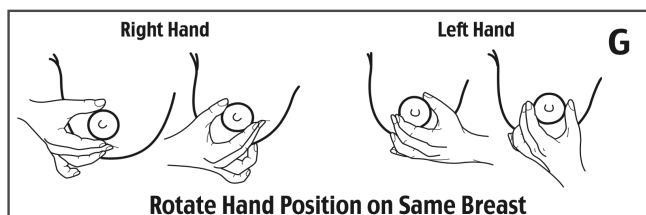


The counter pressure of the fingers simulates the baby's palate. The rolling motion of the thumb imitates the milking (sucking) motion of the baby's tongue by compressing and draining the terminal milk ducts without hurting sensitive breast tissue.

Note the moving position of the thumbnail and fingernails in illustrations D, E, and F.

4. **Repeat Rhythmically** to drain the terminal milk ducts.

Position, push, roll; position, push, roll...



5. **Rotate** the thumb and finger position to reach other terminal milk ducts. Use both hands on each breast. Illustration G shows hand positions on the right breast.

- Note clock positions of fingers in illustration G: 12:00 and 6:00, 11:00 and 5:00, 1:00 and 7:00, 3:00 and 9:00.

## ASSISTING THE MILK EJECTION REFLEX (MER)

### STIMULATING THE FLOW OF MILK

1. **Massage** the milk-producing cells and ducts.

Start at the top of the breast. Press firmly into the chest wall. Move fingers slowly, pressing firmly in a small, circular motion on one spot on the skin.

After a few seconds, pick fingers up and move to the next area on the breast. Do not slide on breast tissue.

Spiral around the breast toward the areola using this massage.

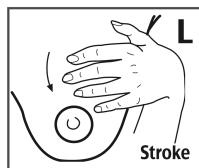
The pressure and motion are similar to that used in a breast examination.



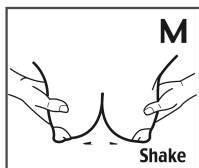
2. **Stroke** the breast from the chest wall to the nipple with a very light, tickle like stroke.

Continue this stroking motion from the chest wall to the nipple around the whole breast.

This will help with relaxation and encourage the **MER**.



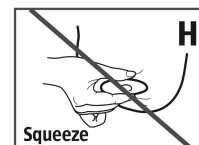
3. **Shake** the breast *very gently* while leaning forward so that gravity will help the milk eject.



## AVOID THESE MOTIONS

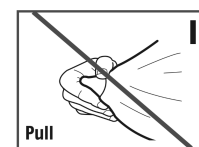
### Squeeze

Squeezing the breast may cause bruising.



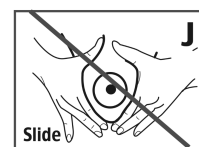
### Pull

Pulling out the nipple and breast may cause tissue damage.



### Slide

Sliding on the breast may cause skin burns.



## PROCEDURE

This procedure should be followed by mothers who are expressing in place of a full feeding and those who need to *establish, increase, or maintain* their milk supply when the baby cannot breastfeed.

- Express each breast until the flow of milk slows down.
- Assist the **MER** by using **massage, stroke, shake** on both breasts. This can be done simultaneously and only takes about a minute.
- Repeat the whole process of expressing each breast and assisting the **MER** twice more. The flow of milk usually slows down sooner the second and third time as the ducts are drained.

## TIMING

The entire procedure should take approximately 20 to 30 minutes when manual expression is replacing a feeding.

- Express each breast 5 to 7 minutes.
- Massage, stroke, shake for about 1 minute.
- Express each breast 3 to 5 minutes.
- Massage, stroke, shake for about 1 minute.
- Express each breast 2 to 3 minutes.

Note: If the milk supply is established, use the times given only as a guide. Watch the flow of milk, and change breasts when the flow gets small. If little or no milk is present yet, follow these suggested times closely. Any portion of the procedure or timing may be used or repeated as necessary.



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