

A close-up photograph of a woman with long blonde hair and glasses, seen from the side, breastfeeding a baby. The woman is looking down at the baby. The baby's head is in the foreground, with its ear visible. The background is a light-colored, textured surface, possibly a bedsheet. The word "Breastfeeding" is written in a cursive font across the middle of the image.

Breastfeeding

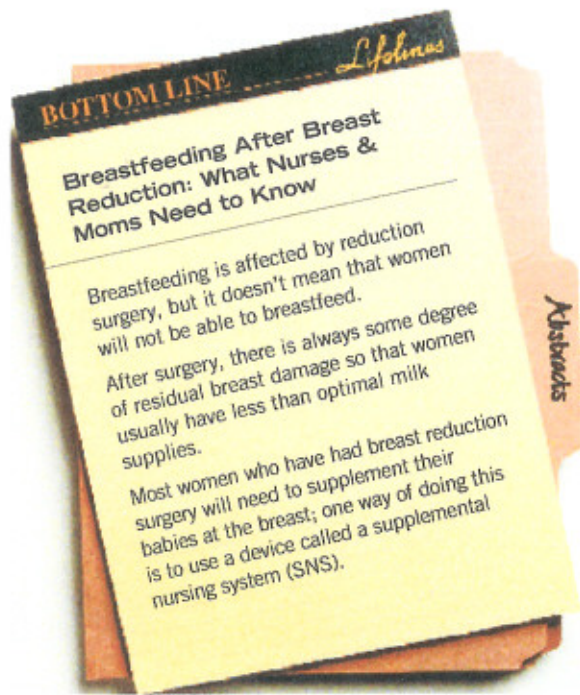


what nurses & moms need to know

after Breast Reduction

Carol Chamblin, RN, IBCLC

The choice to breastfeed after breast reduction is often misunderstood by mothers and health care providers. Mothers are often told that they will not be able to breastfeed with a history of breast reduction surgery. It's clear that breastfeeding is affected by reduction surgeries, but it doesn't mean that women will not be able to breastfeed. It may mean that mothers will need to supplement with donated human milk, formula or another human milk substitute. Yet, these mothers are often frustrated with the lack of adequate instruction given to them to cause breastfeeding to work. They are often treated with an "all" or "nothing" attitude by misinformed lactation consultants, nurses and physicians (West, 2001, p. 63).



Breastfeeding is a term that has several different definitions. According to the World Health Organization (WHO, 2001), breastfeeding is when the child receives breast milk either directly from the breast or expressed. "Exclusive breastfeeding" is defined as the child receiving only mother's milk and no other liquid or solid foods. To be exclusively breastfed means that the child receives human milk from his mother (from the breast or expressed into a bottle), a breast milk donor or from a milk bank. "Partial breastfeeding" is defined as the child being given some breastfeeds, and some artificial feeds of either milk, cereal or other food (WHO, 2001, pp. 7-8). For the purposes of this discussion, breastfeeding will be defined as any



TEN YEARS AGO...



TEN YEARS FROM NOW...

It was recognized from both animal and human models that those species with long gestation periods and a long-term commitment to offspring will result in breastfeeding behavior even when the mother is at a survival disadvantage. In other words, women will strive to nurse their infants even when it's potentially or actually harmful to them.

Source: Wilde, C., Prentice, A., & Peaker, M. (1995). Breast feeding: Matching supply with demand in human lactation. *Proceedings of the Nutrition Society*, 54, 401-406.

Box 1.

Kerry's Story

I always knew that I wanted to breastfeed once I started to have children. It was always in the back of my mind that my breast reduction surgery during my teen years may impact my ability to breastfeed. I had the surgery done because I was experiencing severe back pain from being a double D cup size. So, once I became pregnant, I started looking up information on the Internet regarding breastfeeding after breast reduction surgery. I found Diana West's book on the Web and read it from cover to cover. She made me feel as though it would be worth a try to attempt to breastfeed my baby. She also stressed the importance of working with a knowledgeable lactation consultant.

I made some contacts through e-mail and was referred by two different lactation consultants to Carol, one of their colleagues. Carol and I discussed my options and made our plans over the phone about a week prior to my due date, but I went into labor the next day. I delivered my healthy boy, Zachary, and called Carol to announce our birth. She visited me in the hospital the next day. Carol taught me how to properly latch Zachary onto my breasts, and she reviewed proper pump technique with me so that I could stimulate my breasts to get the milk flow prepped. The hospital lactation consultants started using a supplemental nursing system (SNS) with me the day of my discharge from the hospital because Zachary had lost 10 percent of his birth weight. The SNS is a device used to offer extra milk or formula to a baby while latched to the breast. It's a bottle container connected to tubing that the nurses tapped to my breast.

Carol and I scheduled an appointment for her to come to my home to do a lactation home visit on Zachary's fifth day of life so that we could check how much he was eating at my breasts. Carol also provided me with a rented hospital-grade, electric breast pump called the Medela Symphony to stimulate my breasts after feedings. I had learned that I needed to pump eight times in 24 hours to be able to initiate my milk supply. I also took More Milk capsules to help with my milk supply when Zachary was about 3 months old and I had to return to work and pump my milk to feed Zach.

My first lactation visit with Carol consisted of a weight check and a volume check. Zach weighed 7 lb. 13 oz. and his intake at my breasts was 48 cc or 1½ oz. Carol told me that I could stop using my SNS. I was thrilled about being able to breastfeed my son. However, as the days passed, my son began having periods of crying spells that just couldn't be stopped. I thought Zach was having a lot of gas and I tried to eliminate dairy products from my diet. But, I knew I had better phone Carol for another volume check when Zach was

about 2 weeks old because his wet diapers were no longer soaked, but feeling lighter in weight. I decided at this point to feed Zach a bottle of expressed breast milk and he took the entire 3 ounces!

Carol came back to my house and reassessed my latching technique because in addition to Zach's hunger cues, my nipples were getting a little sore. Zach's intake at my breasts was 76cc or 2.5oz. It felt really comforting knowing how much Zach was getting from my breasts, so I decided to rent the BabyWeigh Scale from Carol so that I could continue monitoring his intakes. By the next morning, Zach had taken 108cc or 3.5oz! His wet diapers were heavy again. But his intakes at the breast from this point onward for several weeks varied from ½ to 4oz. I decided to start giving Zach a couple of bottles of 1 to 2 ounces a day while I continued breastfeeding him the rest of his feeding times. One reason I chose to go this route of feeding was because I knew I had to go back to work and I wanted to make certain that Zach would accept his bottles.

By the time my son was 1 month old, his weight was 9lb 0oz, and he had gained approximately 1lb 4oz. This is considered a really good weight gain for babies, so Carol encouraged me at this time to stop measuring Zach's intakes at each feeding so that I could relax and enjoy my breastfeeding relationship with my son. I was feeling very reassured with Zach's weight gain and his wet and poopy diapers.

Supplemental Nursing System (SNS) in use



Author's photo; used with permission.

I recall going to my obstetrician for my six-week checkup and telling her that I was still breastfeeding my baby. She told me that she had never seen a mom with breast reduction continuing to breastfeed. Having the scale in my home helped me to feel much more secure about my baby's weight since I could check how much he was taking from my breasts at any time. And, my dear husband was very supportive of my efforts, which really helped me.

I continued pumping my breasts about five or six times a day to stimulate my milk, and I took More Milk capsules because the daily bottles that Zach was taking each contained about 3 to 5oz. But, he had gained another 12oz in two weeks. Carol really stressed to me the goal of maintaining Zach's weight while continuing to breastfeed. She didn't want me to worry, nor for Zach to get dehydrated.

When Zach was around 2 months old, I did start to measure his intakes again. His weight was up to 10lb 6oz, and his intakes ranged from 2 to 4oz. The lapse in my recording of intakes was during a difficult period of time when Zachary had become extremely fussy, and his pediatrician recommended I remove all dairy products from my diet. It seemed to help, and Zach was able to sleep better and be less fussy and gassy.

By the time Zach was 3 months old, he weighed 11lb 7oz and drank about 3½ to 6oz per breastfeeding. Zachary appeared to be feeling less gassy, and he would lie in his crib cooing and talking to himself for at least a couple of hours a day. My pumping had gone down to approximately three times a day and I'd express anywhere from droplets to 2 to 3oz per pumping. Before Zach was born, I had hoped to make it to 3 months with breastfeeding, so I was feeling pretty good about it. Now, I decided to try to get to his sixth month. I had to return to work when Zach was 3 months old, so I would pump twice a day. The hands-free device I purchased from Carol was very helpful in allowing me to pump at the same time as I ate my lunch at my desk.

I am so grateful to have had this chance to breastfeed my son. We made it to my six-month goal, and then I returned the pump and the scale to Carol and told her I'll be calling her when I decided to have the next one. I really feel that my breastfeeding experience was enhanced by my learned technique to latch Zach to my breast, and my ability to pump my breasts and to check Zach's intakes and his weight. I felt much less worried about Zach's breastfeeding because of the plans Carol and I agreed to follow.

amount of suckling and latching at the breast that women strive to achieve so as to nurture and provide warmth and bonding with their babies.

Effects of Breast Reduction on Breastfeeding Success

The ability for a woman to successfully breastfeed depends on the type of surgery done at the time of her reduction. The Inferior Pedicle surgical technique is the most popular one (see Box 2 for surgery techniques). It doesn't compromise the nerves or blood supply to the nipple or areola. Therefore, it usually preserves the ability for the breast to produce milk.

The Periareolar technique (see Box 2) removes the entire nipple-areolar unit, but keeps this unit attached, so as to reduce damage to the nerves and blood supply. There is some degree of residual breast damage so that women usually have less than optimal milk supplies, especially with their first breastfeeding experiences. There are still several other types of surgeries, but in general, the techniques where the nipple and areola are severed and completely removed from the nerve and blood supply result in the most impairment and less chances for women to be capable of milk production (West, 2001).

Nursing Assessment

Women with a history of breast reduction need to become prepared emotionally for the possibility of not fully providing breast milk for their newborns, and they need to discuss viable options for breastfeeding. They need to obtain a copy of their medical records related to the surgery if possible.

Many women of childbearing age will have had their surgical procedure during their adolescent years to resolve issues surrounding low self-esteem or physical discomforts such as severe back pain from the weight of pendulous breasts. They may have sought medical attention to relieve their physical or emotional distress, and the health care provider may not have even considered a surgical incision that would be more conducive for breastfeeding later in life. Recent findings have concluded that the type of surgery performed may not have an impact on a woman's ability to breastfeed as much as her support around her at the time of breastfeeding (Kakagia, Tripsiannis, & Tsoutsos, 2005). Therefore, making breastfeeding a possibility for these women is realistic.

Prenatal breast and nipple assessments usually are not done because of lack of awareness of its relevance to breastfeeding. Assessment of the nipple and areola should include inspection and palpation, noting anatomical deviations and scarring. The location of the scarring can indicate the type of surgery done and related nerve impairment with potential impact on milk production. An incision along the areolar margin usually indicates interference in milk supply. Pertinent questions for women include whether they experienced an increase in breast size

during pregnancy, which indicates the development of the mammary gland. Inspection of the nipple and areola can determine structural abnormalities. Palpation of the nipple-areola can possibly determine in more detail the location and depth of scar tissue within the breast, and perhaps whether there is any tenderness in the region of the breasts related to potential impairments from prior surgical scars (Riordan, 2005).

Many women who have undergone breast reduction appear anxious about their ability to breastfeed. Usually, these women had their procedures done many years before even considering whether to breastfeed, and it's during pregnancy that they begin to reflect on their anxieties associated with breastfeeding. It can feel disappointing to learn that supplementation may be necessary when women are hoping to have a full milk supply for their infants. Some women may even express frustration toward their health care providers when no appropriate interventions are suggested to them when they try to breastfeed.

It may be that the process of lactation is not fully understood by some health care providers, and this is the reason they don't predict success. Some misinformed lactation consultants and other health care providers will reinforce breastfeeding failure by inappropriately predicting that if a woman makes any milk at all she will go on to make a full milk supply, or that if the woman makes no milk, she will not be able to breastfeed at all (West, 2001). The concerns of these women should be taken seriously, and a plan of care established preferably during pregnancy, or at the very least, at the time of birth.

Box 2.

Breast Reduction Surgical Techniques

Inferior Pedicle surgical technique, often called the McKissock technique, is the most popular reduction mammoplasty technique performed in North America today. A hallmark of this surgery is that the nerve or blood supply to the nipple-areolar complex is not compromised. The majority of tissue removed is from the perimeter of the breast, which ensures that the majority of lactation tissue remains intact. Once tissue is removed, the nipple is moved upward into its new position.

The Periareolar technique, or "The Round Block," is the technique with the least amount of visible scarring. The only incision is around the areola. This technique is used for women with slight to moderate breast changes. This is the only surgical technique in which the areola remains attached and unmoved, but the circumference may be reduced by removing the outer portion. The breast shape may not end up being ideal.

Get the Facts

- BFAR: Breastfeeding After Reduction:
<http://www.bfar.org>
- International Lactation Consultant Association:
<http://www.ilca.org>

The volume of milk ingested by breastfeeding babies in the first 24 hours after birth is approximately 7 to 14 mL per feeding. Milk yield increases over the next 36 to 96 hours so that by day five, the milk volumes of mothers averages 500 mL/day. Volumes are measured by test-weighing babies using pre/postfeeding weights in grams on a reliable scale, such as the Medela BabyWeigh Scale. The difference in weights before and after feedings in grams are calculated into milliliters of milk intake from the breast. For instance, if the difference in pre/postfeeding weights in grams is 30 grams, it indicates that babies have taken 30 mL or one ounce from the breast (Riordan, 2005).

How Can Nurses Help?

Nurses need to teach appropriate interventions for these mothers. Most of these mothers will need to supplement their babies at the breast. One way of doing this is to use a device called a supplemental nursing system, which allows mothers to breast-feed while at the same time supplementing their babies' nutrition with donated human milk, formula or another nutritional supplement. These devices are effective since they supply supplementation in proportion to the available milk delivered from the breast. When there is less milk, more supplement is given, and when there is more milk, less supplement is given.

It's important to teach mothers how to assess for signs of infant dehydration. These include a sunken anterior fontanel, a weak, high-pitched cry and insufficient and infrequent wet diapers. In the early days when babies are eating colostrum, they may have only one or two wet diapers per day. Then as mature milk starts to come in around day 3, they should start to have six to eight wet diapers. Inform mothers that if they see signs of dehydration, they will need to contact their primary care provider.

Teaching mothers about the availability of galactagogues, which have the effect of increasing the milk supply, is another nursing responsibility. Some of the herbal galactagogues are fenugreek, More Milk capsules that consist of fenugreek, blessed thistle and nettles or goat's rue. There are some studies exploring the effectiveness of these herbal sources of galactagogues; however, the studies are less common than those of the prescription galactagogues because the herbs come in many different forms and strengths, making them hard to compare

and report as valid findings (West, 2001). Galactagogues requiring a prescription are Domperidone or Metoclopramide. These galactagogues should be taken only when a low milk supply is documented by a mother expressing only drops of breast milk on day 5 of life when completely emptying her breasts and her baby's intake documented as less than his required intake (West).

Effective use of a breast pump can be taught to mothers to optimize their lactation capabilities. A lactation consultant can help the woman establish an appropriate plan for pumping that works for her. Some mothers become overly stressed when trying to pump and therefore will produce less milk. Other mothers indeed facilitate more milk production when using a breast pump to completely empty the breast. The removal of milk and complete emptying of the breast is necessary to promote milk production (Hartmann, Owens, Cox, & Kent, 1996). Research has found that the rate of milk synthesis, or how fast the secretory cells make milk, is related to the degree of emptiness (or fullness) of the breast (Hartmann et al.). As the alveolar cells fill, what's known as the feedback inhibitor of lactation signals to the secretory cells to slow down milk synthesis. The emptier the breast is, the faster it tries to refill. Therefore, when milk is regularly and thoroughly removed from the breast, then milk synthesis is encouraged (Smith, 2001).

Test-weighing, which means weighing the baby before and after breastfeeding and calculating the difference in grams as the corresponding volume of intake in milliliters, is a very accurate method of determining milk transfer between a mother and her baby (Hartmann et al., 1996). Monitoring of infant weight and infant intake at the breast is most effectively evaluated with the use of an electronic scale that is highly accurate. An example of this is the Medela BabyWeigh Scale, which a mother can rent from some of the Medela rental stations that also rent breast pumps. Rental fees for these scales can be submitted for possible insurance reimbursement with a health care provider's order. When a mother cannot afford to rent a scale or lives in a small town where resources are not available, area hospitals with lactation departments may permit moms to visit and use the scale at the hospital. Not all scales are designed to accurately measure precisely volume of intake at the breast to the accuracy of the BabyWeigh, which is accurate to within two grams (West, 2001).

Implications for Nursing

Nurses have an important role to play in the promotion and facilitation of breastfeeding in women who have had breast reduction surgery. A thorough assessment of the breast and nip-

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ples is one intervention that can help to anticipate problems. Educating the woman about adequate hydration and signs of dehydration is also vital (See Box 3). Taking a systematic approach with patients of prior breast reduction surgeries can avoid unnecessary complications such as lost time initiating galactogogues, effective pumping, infant weights and infant volumes of intake at the breast.

A lactation consultant may be the essential first step in helping these women breastfeed successfully. Referrals to members of the health care team such as social services can be taken when mothers are feeling overwhelmed and stressed about their limitations in providing a full supply of milk to their babies. Nurses who facilitate this process by being informed, referring mothers for postdischarge support by a knowledgeable lactation consultant and developing effective patient plans of care can have an impact on the outcomes of mothers with histories of breast reductions. ●

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