

“I cried out each time they got onto the breast. It felt like knives and broken glass—it was excruciating. I looked in the mirror and saw that my nipple had gone white.”

Mother of infant twins

Nipple pain during breastfeeding can affect breastfeeding satisfaction and is one of the reasons that mothers of multiple-birth infants abandon breastfeeding. Nipple tenderness and pain during the first few days of breastfeeding usually occurs at the beginning of a feeding and is attributed to the baby stretching the nipple and surrounding breast tissue into the back of his or her mouth and pressing it against the soft palate (roof of the mouth). The pain usually disappears after the milk ejection (let-down) occurs and when the infant is properly positioned, attached, and suckling at the breast. There is a lack of agreement among breastfeeding specialists regarding how much soreness and pain is normal during the first days following delivery. Studies reveal that 80-95% of breastfeeding women rate their nipple pain as moderate to intense in the first days (and even weeks) of breastfeeding and that more than 25% progress to cracking of the nipples and extreme nipple pain.^{1,2} Moderate to severe nipple pain, or pain that increases as the days go by, signals the need for careful assessment and immediate assistance by a health care provider who is qualified to deal with complex breastfeeding problems.

Vasospasm of the nipple is excruciatingly painful, more common than generally believed, and may not be recognized or treated correctly by health professionals.

Recognition of Vasospasm of the Nipple (Raynaud’s Phenomenon)

Raynaud’s phenomenon is due to the spasm of small blood vessels which prevents blood from reaching a particular part of the body such as the fingers, toes, ears, and nose. It occurs most often in response to a decrease in temperature and is more common in women. More than 20% of women of childbearing age may be affected.^{3,4}

Raynaud’s phenomenon can also affect nipples and is one cause of nipple pain. It is an extremely painful condition in which the blood vessels in the nipple(s) constrict and temporarily cut off the circulation of blood to the nipple. Multiple-birth women and their health care providers may not recognize the condition and therefore, not treat it correctly.

Vasospasm or blanching of the nipple is more common than is generally believed⁵; accurate statistics, however, are not available. Some women have experienced nipple vasospasm during pregnancy⁴ while others have had intense nipple pain and/or vasospasm when they breastfed previously.^{6,7} A few of these women report a history of Raynaud’s phenomenon prior to pregnancy and others indicate that a parent or close relative is affected by Raynaud’s.⁷

Vasospasm of the nipple usually occurs shortly after the completion of a breastfeeding session but can also occur during or in-between feedings.^{7,9} The first sensation is often that of “burning” or stinging followed by intense throbbing of the nipple. The nipple starts to turn white within seconds or minutes following a feeding and is accompanied by numbness, a stinging sensation, and/or burning pain. The nipple may then return to normal colour, or progress through a two-colour phase of white-red-normal (biphasic), or a three-colour phase of white-blue-red-normal (triphasic).^{4,5,7} When the nipple is blue, the oxygen supply has been diminished momentarily and when it is red, the blood is rushing back into the nipple. When blood returns to the nipple, intense throbbing pain occurs. There may be several vasospasm cycles in a row which may go on for several minutes or even an hour or more. The mother may not feel as much pain during nursing as she does in-between breast feedings.⁵ When a baby is feeding on one breast, the nipple on the

opposite breast may go into spasm. Exposure of the nipples and breast to cold or a drop in temperature can precipitate the blanching and severe pain.

Why does vasospasm of the nipple happen?

The majority of cases have been linked to poor positioning of the baby during breastfeeding and improper latching/suckling of the baby on the breast.⁴ The nipple becomes traumatized from one or more infants' repeated and faulty attempts at breastfeeding. Anecdotal accounts suggest that infants with a receding infant chin, short frenulum, short tongue, high arched palate (roof of the mouth), or small mouth may be more likely to cause nipple trauma because they may clamp down on the nipple, or suck on it, instead of compressing and massaging it against the roof of the mouth.¹⁰

Most, but not all, women with vasospasm have nipple bruising, blisters, ulcerations, or cracks that are slow to heal.⁷ Raynaud's phenomenon of the nipple often goes hand-in-hand with an infection of the mother's nipples or breast tissue. Visual evidence on the mother or the babies of infection caused by *Candida albicans* (yeast/fungus commonly known as "thrush") or *Staphylococcus aureus*, a bacterium, may or may not be readily apparent.

Does nipple blanching happen more often when breastfeeding multiples?

I am unaware of any findings that describe how often this phenomenon affects women who breastfeed multiple-birth infants or whether mothers of multiples are less or more vulnerable than women breastfeeding a singleton. It has been suggested that multiple-birth women may be more inclined because of the high occurrence of preterm babies who have difficulties with proper latching and suckling and who may be improperly positioned at the breast, particularly during simultaneous feedings. Others propose that the stress involved in breastfeeding more than one

baby may trigger vasospasm of the nipples in those women who are predisposed to Raynaud's phenomenon.

I have recently assisted two mothers of twins who experienced vasospasm of the nipples. The first woman's troubles started shortly after delivery: One baby's latch and sucking was faulty and the mother's nipples were ulcerated and cracked. The second woman, who was apparently fine for the first few months, noticed a change in one baby's sucking at three months. Shortly thereafter, she experienced trauma to her nipples, blanching, and severe nipple pain. In addition, I have had communications with one mother of twins who attributed the blanching and extreme pain to one of the babies pulling back her tongue and clamping down on the nipple. It took about eight weeks of intense treatment to correct the faulty latch and suckling, thrush infection, and pain.

The solution is to try and prevent nipple vasospasm and if it does occur, to correct the original cause.

What can you do if you have nipple vasospasm?

1. Get help immediately from a qualified lactation consultant or other health care provider with expertise in breastfeeding problems. Ask if it is possible for her/him to come to you rather than vice versa; that way the health provider can see how you and the babies are breastfeeding in your natural environment. She/he will examine the inside of the babies' mouths, positioning during breastfeeding, latching-on, and nature of the babies' sucking.
2. Gain skill in recognizing correct positioning, latching-on, and suckling techniques. It is usually best to breastfeed one baby after the other versus two together as you can more closely monitor the babies' feeding techniques and make the necessary adjustments.
3. Keep your nipples, breast AND the rest of your body warm and breastfeed in a warm environment. Avoid cold air exposure or drops in temperature. Apply a heating pad, hot pack

in a baggy, special breast pads that can be heated, or warm moist compresses to your breasts, or take a warm shower right after breastfeeding. Newman¹¹ suggests that dry heat is less likely to cause nipple tissue damage than moist heat. However, several studies have found that applying warm water compresses (as compared to breast milk and lanolin) provides the most pain relief.^{1, 10}

4. If a nipple or breast infection is suspected, a physician will likely prescribe an oral/topical antifungal medication or an antibiotic, depending on the cause.^{12,13} Mother and babies will likely require treatment. Information about the treatment of Candida (yeast/thrush) infections is available at <http://www.breastfeedingonline.com> (click on to *Yeast/Thrush* and *Handouts* by J. Newman, MD).
5. It may be helpful to “rest” the affected nipple by pumping for a few times instead of letting the babies suck on that particular side.
6. Stress and emotional upset may trigger an attack. Moderate regular aerobic exercise such as walking may be recommended.^{3,4} Relaxation and biofeedback training may help the mother bring the temperature of the nipples under voluntary control.^{3,4}
7. Caffeine, although a dilator of blood vessels, may contribute to the problem because the blood vessels may rebound by constricting and going into spasm.⁴ Therefore, it may be worth limiting foods and fluids containing significant amounts of caffeine.
8. Avoid using drying or irritating substances on the nipples such as soap and shampoo.
9. Avoid smoking and second hand smoke as nicotine causes blood vessels in the body to constrict and the skin temperature to drop.³

Check with your health care provider before taking any medication.

10. The following three remedies have been proposed to lessen the severity of symptoms. Scientific evidence of effectiveness however, is lacking thus far.
 - Vitamin B₆ also known as Pyridoxine, may be effective in many cases.⁵ Newman reports that it is safe for the mother to take and will not harm the babies. He recommends that a mother take 150-200mg once a day for four days. If the pain lessens by day four, the vitamin is taken (25mg once a day) for several weeks until the pain is gone. If the pain doesn't disappear after a few days, B₆ most likely will not work.⁵ Long term use of Pyridoxine at levels above 100mg/day is not recommended.¹⁴
 - Evening primrose oil (12 oral capsules/day) and fish oil (12 oral capsules/day) have individually been found to help persons with primary Raynaud's; each takes about 6 weeks to have an effect.⁷
 - Calcium (2000mg/day) and magnesium (1000mg/day) have been proposed;⁴ evidence of success is sketchy.
11. Consider taking an analgesic that is safe for use while breastfeeding, such as acetaminophen or ibuprofen.
12. The medication shown to be the most effective in reducing nipple vasospasm is nifedipine, a calcium-channel blocker also known as Procardia® and Adalat®.^{4,5} Nifedipine causes blood vessels to dilate and relax by blocking calcium from getting into the muscle walls of blood vessels. There is no evidence of adverse effects on infants when a

mother takes nifedipine during pregnancy.^{15,16} It is reported that less than 5% of the total dose of nifedipine appears in the breast milk.¹⁷

The side effects for women of taking nifedipine may include headache, flushing, dizziness, rapid heartbeat, and fluid retention in the extremities. These effects can be minimized or eliminated and the amount of drug in the breast milk lowered by starting with a small dose such as 5 mg three times a day⁴ or by using a slow-release preparation of a 30mg tablet once a day.^{4,5} The slow-release preparation is taken for two weeks and then stopped. A marked improvement may be seen within three days.⁹ If the pain returns, which it may in 10% of women, the medication is restarted. After two weeks, the medication is stopped and restarted if the pain returns.⁵ Newman reports that he is not aware of women needing to take more than three two-week courses of treatment. (Grapefruit juice should be avoided while taking nifedipine as it is known to interfere with the body's metabolism of the drug).

Severe nipple and breast pain can jeopardize the breastfeeding and mothering relationship. Become informed and seek qualified help. Persevere with breastfeeding even though it may take time to find the help that you need and for the pain to diminish.⁹ Above all, don't give up! You and your babies will reap the benefits.

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Helpful Breastfeeding Websites

Articles by Jack Newman, MD: *Sore nipples*.
<http://www.breastfeedingonline.com/3a.html>

& *Treatment for sore nipples and sore breasts*.
<http://www.breastfeedingonline.com/3b.html>.

Breastfeeding on-line by Cindy Curtis, IBCLC.
<http://www.breastfeedingonline.com>.

Breastfeeding.com.
<http://www.breastfeeding.com>.

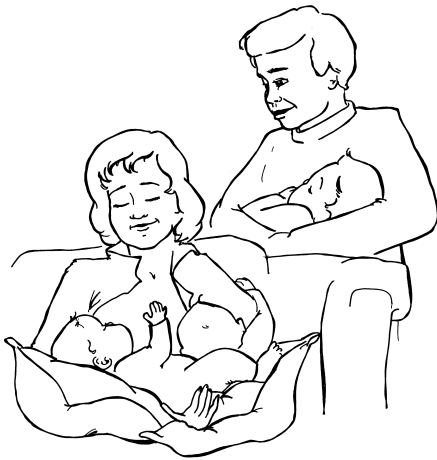
La Leche League International. Click on to *Breastfeeding Information*.
<http://www.lalecheleague.org>.

Motherisk: Research-based information on medication safety while breastfeeding.
<http://www.motherisk.org/drugs/index.php3>.

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Additional Resources:

- *Breastfeeding Twins*, Multiple Births Canada Pamphlet
- *Breastfeeding Triplets & Quadruplets*, Multiple Births Canada Pamphlet
- *Nursing Your Infant Twins*, Multiple Births Canada Booklet
- *Special Delivery: The Handbook for Parents of Triplets, Quadruplets & Quintuplets*, Multiple Births Canada Booklet
- *Twin Care: Prenatal to Six Months*, Multiple Births Canada Booklet
- *Expectant & New Parent Support Kit*, Multiple Births Canada
- *Mothering Multiples: Breastfeeding & Caring for Twins or More*, Karen Kerkhoff Gromada, La Leche League Int'l, 1999, ISBN 0-912500-51-4

Web Sites:

La Leche League of Canada Referral Service

Tel: 1-800-665-4324
www.lalecheleague.org

Lactation Consulting Services Canada

www.breastfeedinghelp.ca

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Questions?

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