

Milk Supply Triage... or What's going on with my milk supply?

Debbie Albert, PhD, BSN, IBCLC

Disclosure

- I have no commercial interests or relationships to disclose in this presentation.

(c) Debbie Albert, PhD, BSN, IBCLC 2015

3

The Program

- With the increasing percentage of high risk infants who survive, and the increasing number of women who have to work, the laws of supply and demand get a bit jostled at times. Be prepared for an interactive program that will help you get to the bottom of milk supply dilemmas.

(c) Debbie Albert, PhD, BSN, IBCLC 2015

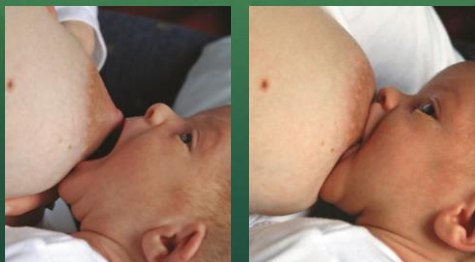
4

A Bad Latch



5

A Good, Maintained Latch



6

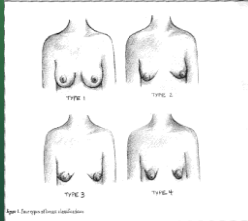
What causes supply issues?

- Maternal Health Concerns- anemia, PCOS, DM, IGT, thyroid, difficult delivery, obesity, smoking, etc.
- Poor feeding start—lack of stimulation in first days
- Supplementation—medically ordered or not
- Bottle, pacifier, nipple shield use
- Scheduled and timed feeds
- Sleepy, unhealthy, or anatomical problem baby

(c) Debbie Albert, PhD, BSN, IBCLC 2015

7

BREAST TYPES--IGT



- Breast types classified by physical characteristics. (Adapted from Heimberg DV, et al, 1996, and Huggins KE, et al, 2000).
- Type 1 Round breasts, normal lower medial and lateral quadrants
- Type 2 Hypoplasia of the lower medial quadrant
- Type 3 Hypoplasia of the lower medial and lateral quadrants
- Type 4 Severe constrictions, minimal breast base
- Conclusion—Hypoplasia can affect milk supply. Wide spacing is one way to identify it.

8

Ankyloglossia



9

Insufficient Milk Transfer

- Weight loss...
 - Continued weight loss after 4 days
 - Below birth weight after 10-14 days
 - Days 5 to 3 months –less than 20 grams per day or less than 5 oz per week. Beyond 3 months weight gain slows
 - WHO code weights vs. CDC

(c) Debbie Albert, PhD, BSN, IBCLC 2015

10

Insufficient Milk Transfer

- Output
 - Less than 3 stools each 24 hours after 3 days
 - Dark green stools after 4-5 days
 - Dark, strong smelling urine after 2 days
 - Uric acid crystals after 3 days

(c) Debbie Albert, PhD, BSN, IBCLC 2015

11

Insufficient Milk Transfer

- **TREATMENT**
 - Rule out health and anatomical issues of mother and baby. Health history, current meds, vitamins, and natural or holistic remedies.
 - In first 36 hrs –diuresis of intrapartum fluids
 - Increase breastfeed frequency 8-12 times daily
 - Hospital grade pump after feeds every 2-3 hours
 - Breast compression during pumping and hand expression after pumping to maximize milk removal
 - Supplement donor milk, hydrolyzed protein formula

(c) Debbie Albert, PhD, BSN, IBCLC 2015

12

Late Preterm and Early Term Infants

- LPT – 34-36 6/7 Weeks
- ET – 37-38 Weeks
- Characteristics
 - Higher risk for hypothermia
 - Higher risk for neonatal jaundice
 - Higher risk for sudden weight loss due to higher caloric output than input
 - Suck is 20-25% vs. full term 40%
 - Developmental – not based on weight, but 4-6 lb causes more concern

(c) Debbie Albert, PhD, BSN, IBCLC 2015

13

Late Preterm /Early Term



14

Late Preterm/Early Term

- Most hospitals have protocols for these babies
- Begin with hand expression and feed on day 1
- Exceptional weight loss—beyond 10% day 2
- Day 1: 2-10 ml
- Day 2: 10-15 ml
- Day 3: 15-22 ml
- SNS, finger, cup feed to support breastfeeding

(c) Debbie Albert, PhD, BSN, IBCLC 2015

15

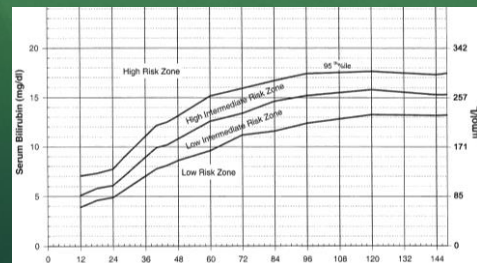
Neonatal Jaundice

- Abnormal total serum bilirubin for age as determined by bilirubin nomogram
- Deeper red or yellow skin tone more easily visible in lighter skin
- Reduced bowel movements
- Infant lethargy—difficult to feed or sluggish feed

(c) Debbie Albert, PhD, BSN, IBCLC 2015

16

Nomogram



17

Neonatal Jaundice



18

Neonatal Jaundice

- **TREATMENT**
- Continue breastfeeding, with increased frequency
- Use therapies that maximize breastfeeding, phototherapy blankets, feeds under lights with goggles.
- If breastfeeding must be interrupted (this is not common), express milk every 2-3 hours to maintain milk production, and hydrolyzed formula is preferred over regular formula

(c) Debbie Albert, PhD, BSN, IBCLC 2015

19

Breast Engorgement

- Breast Fullness or Edema (large IV fluids during labor and breast surgery can attribute)
- Breast pain
- Nipple flattening due to fullness
- No fever or redness
- Early engorgement (4-5 days) is normal, but later engorgement can indicate insufficient milk removal or overproduction

(c) Debbie Albert, PhD, BSN, IBCLC 2015

20

Breast Engorgement



21

Breast Engorgement

- **TREATMENT**
 - Increase breastfeeding frequency and expression to assist with milk removal
 - Reverse Pressure softening with difficult latching
 - Massage breasts toward armpits while lying on back to reduce venous congestion and improve fluid drainage
 - Apply cold packs (no more than 10 minutes to avoid vasoconstriction), and use of cabbage leaves not showing productive in current research
 - NSAID –typically ibuprofen

(c) Debbie Albert, PhD, BSN, IBCLC 2015

22

Plugged Ducts

- Tender area on breast
- Typically unilateral –but can be bilateral
- Typically painful prior to breastfeeding, but can be very painful at latch if located on areolar tissue
- Usually afebrile
- May temporarily decrease milk production – particularly on effected breast(s)
- Left untreated, it can progress to mastitis or abscess.

(c) Debbie Albert, PhD, BSN, IBCLC 2015

23

Plugged Duct



24

Plugged Ducts

- **TREATMENT**
 - Breastfeeding frequently, starting more on effected breast
 - Position baby with CHIN pointing toward painful area
 - Massage plug with warm edible oil. Massage from armpit to nipple, use hand compression.
 - Lecithin supplements can be used to help internally
 - Granule supplement- 1 tbs 3-4 x daily
 - Pill form – one pill in a.m. and one in p.m.

(c) Debbie Albert, PhD, BSN, IBCLC 2015

25

Mastitis

- Typically Fever above 101.3, but mom can also be afebrile
- Malaise (achy, chills)
- Breast erythema and pain; typically unilateral
- Possible decreased pain
- Uninformed mothers make interesting choices like not feeding or pumping for hours/days on effected side or abruptly not feeding baby.

(c) Debbie Albert, PhD, BSN, IBCLC
2015

26

Mastitis



(c) Debbie Albert, PhD, BSN, IBCLC
2015

27

Mastitis

- **TREATMENT**
 - Rule out overproduction/insufficient milk removal
 - Increase breastfeeding frequency
 - NSAID
 - Recommend rest, slowing down – Mom usually busy
- Physician assistance...
 - Not resolved in 24 hours – staph sensitive antibiotic
 - Not resolved by antibiotics – culture for MRSA, then treat with MRSA effective antibiotic
 - 3 or more occurrences – rule out scar tissue, fibroids, mass or cancer

(c) Debbie Albert, PhD, BSN, IBCLC
2015

28

Oversupply

- Consistent breast fullness beyond 3 weeks postpartum
- Forceful, sometimes painful milk ejection
- Nipple abrasion can occur from infant “clamping” or baby sliding to nipple due to breast firmness
- Increased risk of engorgement, plugged ducts, mastitis, nipple trauma for mother

(c) Debbie Albert, PhD, BSN, IBCLC
2015

29

Oversupply – Infant Issues

- Rapid weight gain, 1-2 lb per month
- Choking and arching at breast
- Baby is typically gassy with frequent crying
- Green frothy or mucous-type stools usually due to foremilk imbalance

(c) Debbie Albert, PhD, BSN, IBCLC
2015

30

Oversupply



31

Oversupply



32

Oversupply

• TREATMENT

- Rule out other causes for feeding issues. Some examples include ankyloglossia, respiratory or neurological issues, GERD, hormonal issues of mother
- Express milk one time daily to thoroughly drain breasts (may work for some and not for others)
- Block feeds – Every 3–4 hours feed on one breast. (ex: 9–12 left, 12–3 right, etc)
- If other breast is feeling too full, I suggest “pumping off the top” – just enough to make it to next feed
- In severe cases, drug therapy may be needed

(c) Debbie Albert, PhD, BSN, IBCLC 2015

33

Nipple Bleb

- Tiny white/yellow cyst at nipple tip
- May or may not have intense pain
- If bleb rises with pressure at nipple base – look for corresponding plugged duct in breast

(c) Debbie Albert, PhD, BSN, IBCLC 2015

34

Nipple Bleb



35

Nipple Bleb

• TREATMENT

- Soak in warm water
- Warm oil soak with cotton ball or pad
- May need sterile needle aspiration
- Breastfeed or express frequently. Hard, milk strands are normal.
- Wash wound once daily with soapy water to prevent infection and penetrate biofilm
- Resistant bleb may need a corticosteroid

(c) Debbie Albert, PhD, BSN, IBCLC 2015

36

Skin issues?



(c) Debbie Albert, PhD, BSN, IBCLC 2015

37

2 Main Causes of Vasospasm

- 1. Response to nipple trauma that can be resolved by maintenance of deeper latch at the breast
- 2. Random experience of nipple pain which is usually associated with extremity issues associated with cold hands, feet, nose.
- Australian Breastfeeding Association, 2014

(c) Debbie Albert, PhD, BSN, IBCLC
2015

38

MANAGEMENT OF CRACKED NIPPLES



- Typical cause poor latch
- Baby latches only on nipple creating compression bend on tip.
- Tip becomes soft and cracks or blisters
- MUST CORRECT LATCH
- Expressed EBM and air dry
- Lanolin (not used with person who has wool allergy)
- Shells to keep material off of nipple (if needed)

(c) Debbie Albert, PhD, BSN, IBCLC
2015

39

ELONGATED NIPPLES



(c) Debbie Albert, PhD, BSN, IBCLC
2015

40

Nipple Vasospasm

- Blanching and bruised coloration of the nipple. Nipple often appearing red when blood rushes back to it.
- Vasospasm can occur with poor latch or severe compression caused by other issues (ex; ankyloglossia)
- Vasospasm can occur with breastfeeding and pumping
- Consistent vasospasm with no underlying physical cause is an indication for Raynaud's Syndrome

(c) Debbie Albert, PhD, BSN, IBCLC
2015

41

Raynaud Phenomenon of the Nipple



42

Nipple Vasospasm



43

Raynaud prevalence

- According to Raynaud's Association, Raynaud's effects 5-10% of the American population, which is 16-32 million because census is 320,562,000 (United States Census Bureau--<http://www.census.gov/popclock/>)
- Anderson, et al (2004) estimate that Raynaud's could effect up to 20% of child bearing women. During 2011, there were 65 million women in this age range—so based on this stat 13 million women could be effected (Guttmacher Institute, 1996-2015--<http://www.guttmacher.org/datacenter/profiles/US.jsp>).
- Only 1:5 will seek treatment. That means potentially 10.4 million women of child bearing age will NOT be diagnosed.
- Women more likely than men 9:1 ratio (Lawlor-Smith et al, 1997), and younger people are more likely to have it than older people.

(c) Debbie Albert, PhD, BSN, IBCLC 2015

44

Primary vs. Secondary

- **Primary Raynaud's** –Most common. Not linked to any other medical disease or condition. Not seriously disabling, but patients often have to adjust their exposure to cold or stress.
- **Secondary Raynaud's**. Symptoms are secondary to another disease or condition, usually rheumatic/connective tissue disease. These patients are often more at-risk for more serious conditions, like skin ulcers and even gangrene (Raynaud's Association, 2014)

(c) Debbie Albert, PhD, BSN, IBCLC 2015

45

It's Complicated!

- Secondary Raynauds is associated with...
 - Infections – Hep B and C, Mycoplasma
 - Neoplastic syndromes – Lymphoma, Leukemia
 - Environmental associations – vibration, lead
 - Endocrine syndromes – diabetes, acromegaly
 - Hematologic syndromes – Polycythemia
 - Medications – oral contraceptives, beta blockers, vasoconstrictor meds

(c) Debbie Albert, PhD, BSN, IBCLC 2015

46

Primary vs. Secondary

- A positive ANA (Antinuclear Antibody) test is the only positive marker for an underlying connective tissue disease. Otherwise it is primary Raynaud's. The occurrence of secondary Raynaud's is relatively low. (Raynaud's Association, 2014).

(c) Debbie Albert, PhD, BSN, IBCLC 2015

47

Nipple Vasospasm

- **TREATMENT**
 - Correction of latch and dealing with any issue that may cause nipple compression – ankyloglossia, tight jaw or clamp down bite, myofunctional issues
 - Consistent vasospasm is consideration for Raynaud's syndrome.

(c) Debbie Albert, PhD, BSN, IBCLC 2015

48

Raynaud's Treatment

- Treatment of uncomplicated cases includes avoidance of cold, biofeedback, smoking cessation, caffeine cessation, and, as needed, vasodilating calcium channel blockers (eg, nifedipine) or prazosin.
- With Raynauds of the nipple, heat pads/warm showers prior to and after feeds have been recommended (Wambach and Riordan, 2016). Wearing warm clothing and maintaining warm room temperature can prevent episodes of vasospasm (Anderson et al., 2004; Bonyata, 2011; Morino & Winn, 2007)

(c) Debbie Albert, PhD, BSN, IBCLC 2015

49

Treatment

- Calcium, magnesium, B6
- Dr. Jack Newman proposes B6 150 mg x 4 days followed by 25 mg with 1000/500mg Calcium-Mag supplement for 2 weeks. Jan Barger utilizes this protocol and finds that after two weeks, calcium channel blockers are typically not needed. However, this is based on experience – not research. (Personal Communication, Jan Renich Barger, March 9, 2015)

(c) Debbie Albert, PhD, BSN, IBCLC 2015

50

Final Thoughts on Raynaud's

- So far, we have a basis for understanding that Raynaud's is assisted by vasodilation and becomes more complicated with vasoconstriction.
- Clinically speaking, Raynaud's is quite different from Candida and Mastitis, although symptoms can even be misconstrued by physicians.
- Although we have ways to provide relief, we don't typically have a cure for Raynaud's.
- More research--much more research is needed!

(c) Debbie Albert, PhD, BSN, IBCLC 2015

51

Yeast Infection-Thrush

- Can begin itchy, then becomes burning
- Color of nipple—shiny, dry pink, dry red, dry white
- Baby tongue, buccal area and/or palate –cottage cheese white that does not wipe away
- Baby may have shiny, erythemic diaper rash that is not clearing with regular ointments

(c) Debbie Albert, PhD, BSN, IBCLC 2015

52

Yeast Infection--Thrush



53

CANDIDA IN INFANT MOUTH



54

Yeast Infection-Thrush

- **TREATMENT**
- Treat mom and baby simultaneously
- Topical –nystatin cream for mom and drops for baby
- More systemic – diflucan
- Avoid excess sugars and carbohydrates
- Yeast hates garlic and consider probiotics
- Baby can breastfeed safely, but avoid excess bottles, pacifiers, toys – if possible
- Serious hygiene during this process
- No improvement 2-3 weeks – consider bacterial infection or Raynauds

(c) Debbie Albert, PhD, BSN, IBCLC 2015

55

Bacterial Infection of Nipple

- Abrasion or Erythema
- Moderate to severe pain that is worse with feeds
- Yellow or purulent crusting

(c) Debbie Albert, PhD, BSN, IBCLC 2015

56

Bacterial Infection of Nipple

- TREATMENT
 - Per ILCA's Clinician Triage Tool...
 - Wash 2-3x daily with soap and water to break biofilm
 - Apply small amount of antibiotic or fusidic acid cream to nipples after feeds until healed
 - If there is no improvement – culture/oral antibiotic
 - PHYSICIAN!!!!

(c) Debbie Albert, PhD, BSN, IBCLC 2015

57

Breast Abscess



58

Bonyata, 2011

- Antifungals can further complicate diagnosis because nipple vasospasm can be a side-effect of treatment.

(c) Debbie Albert, PhD, BSN, IBCLC 2015

59

Differences in Quality of Pain

- Let-Down Pain – mild pain in first few minutes, 12-15 minutes after nursing, improves in weeks
- Candida – moderate pain, lasts consistently during nursing, may radiate from nipple through breast to chest wall, **burning pain**, particularly with refill; significant relief with 1-3 days of oral antifungals
- Raynauds – pain before, during, and after nursing – **sharp, shooting, or stabbing pain**, with color change of the nipple. Mother may appear to be overreacting, but she is REALLY experiencing severe pain.
- (Barrett et al, 2013)

(c) Debbie Albert, PhD, BSN, IBCLC 2015

60

Working Issues

- Always begin with health history and breastfeeding history prior to work. Be careful NOT to assume that milk supply issues began with work. Sometimes there were issues prior to that.
- All working situations are not alike. Discuss all facets of Mother's pumping situation – including where, when, how often, and all difficulties. Ask how often baby is fed at home, and if baby sleeps through the night.

(c) Debbie Albert, PhD, BSN, IBCLC 2015

61

Working Issues

- All pumps are not equal. Hospital grade is stronger than consumer. All consumer pumps are not alike. With ACA, market has expanded, some good – some bad. Pump situation is very complicated.
- Some babies go back and forth from breast to bottle well. Others don't. Some mothers start pumping completely – not realizing that continued breastfeeding should help keep up milk supply.
- Aside from pump strength – shields are NOT one size fits all. Does mother compress breast tissue while pumping???

(c) Debbie Albert, PhD, BSN, IBCLC 2015

62

Breastshield sizes

- Imagine a dress company that only sold size 12?
- Look for companies that provide hospital grade pumps with several shield size options
- Look outside the box – slanted shields
- Make sure shields actually fit. It is an issue of stimulation vs. strangulation. Don't assume the mother knows what she is doing.

(c) Debbie Albert, PhD, BSN, IBCLC 2015

63

A note about diagnosis...

- As lactation supporters, it is imperative that we help mothers to the best of our ability. It is important, however, for us to recognize that we cannot diagnose medical conditions. Often, however, we are in a unique place to recommend that the mothers we are assisting get further support from lactation consultants and medical professionals. The IBCLC is in a unique place as primary interventionist in preventing and solving breastfeeding problems (Walker, 2008).

(c) Debbie Albert, PhD, BSN, IBCLC 2015

64

We are not specialists...

- IMPORTANT PLAYERS
 - IBCLC
 - Mom's GP or OB/GYN
 - FP
 - Endocrinologist
 - Pediatrician
 - ENT
 - Dentist
 - Dermatologist
 - Chiropractor
 - Various therapists

(c) Debbie Albert, PhD, BSN, IBCLC 2015

65

Case Group Activity



66

References

- Australian Breastfeeding Association. (2014). Vasospasm. Retrieved from: <https://breastfeeding.asn.au/bfinfo/vasospasm>
- Betzold, C. M. (2012). Results of microbial testing exploring the etiology of deep breast pain during lactation: A systematic review and meta-analysis of non-randomized trials. Journal of Midwifery & Women's Health, 57(4), 353-364.
- Bonyata, K. (2011). Nipple blanching and vasospasm. KellyMom.com. Retrieved from: <http://kellymom.com/bf/concerns/mom/nipple-blanching.html>

(c) Debbie Albert, PhD, BSN, IBCLC 2015

67

References

- Breastfeeding-problems.com. (2012). Raynaud's Phenomenon. Retrieved from <http://www.breastfeeding-problems.com/Raynauds-phenomenon.html>
- Brent, N. (2001). Thrush in the breastfeeding dyad: Results of a survey on diagnosis and treatment. *Clinical Pediatrics*, 40, 503-506.
- Delgado, S., Collado, M. C., Fernandez, L., & Rodriguez, J. M. (2009). Bacterial analysis of breast milk: A tool to differentiate Raynaud's phenomenon from infectious mastitis during lactation. *Current Microbiology*, 59, 59-64. doi:10.1007/s00284-009-9393-z

(c) Debbie Albert, PhD, BSN, IBCLC 2015

68

References

- Francis-Morrill, J., Heinig, M.J., Pappagianis, D., Dewey, K.G. (2004). Diagnostic value of signs and symptoms of mammary candidosis among lactating women. *Journal of Human Lactation*, 20(8) 288-295.
- Garrison, C. P. (2002). Nipple vasospasms, Raynaud's syndrome, and nifedipine. *Journal of Human Lactation*, 18, 382-385. doi:10.1177/089033402237913
- Goldfarb, L. (2002-2011). Nipple vasospasm. Breastfeeding Clinic, Herzl Family Practice Centre, SMBD Jewish General Hospital, Montreal, Quebec, Canada. Retrieved from: <http://www.asklenore.com/breastfeeding/vasospasm.shtml>

(c) Debbie Albert, PhD, BSN, IBCLC 2015

69

References

- Hale, T. W., Bateman, T.L., Finkelman, M.A., & Berens, P. D. (2009). The absence of *Candida albicans* in milk samples of women with clinical symptoms of ductal candidiasis. *Breastfeeding Medicine*, 4 (2), 57-61. doi: 10.1089/bfm.2008.0144
- Hills, T. (2011). Help for pregnant & breastfeeding moms. The Raynaud's Association Blog Archive. Retrieved from: <http://www.raynauds.org/index.php/2011/02/help-for-pregnantbreastfeeding-moms>

(c) Debbie Albert, PhD, BSN, IBCLC 2015

70

References

- Hoen, O. L., & Backe, B. (2009). An underdiagnosed cause of nipple pain presented on a camera phone. *British Medical Journal*, 339. doi:10.1136/bmj.b2553
- Kinlay JR, O'Connell DL, Kinlay S. (1998) Incidence of mastitis in breastfeeding women during the six months after delivery: a prospective cohort study. *Med J Aust*. 1998;169(6):310-312.
- La Leche League (2008). Seeking relief. *New Beginnings*, 16(4), 120-121. Retrieved from <http://www.lalecheleague.org/nb/nbjulaug99p120.html>

(c) Debbie Albert, PhD, BSN, IBCLC 2015

71

References

- Lawlor-Smith, L. & Lawlor-Smith, C. (1997). Vasospasm of the nipple—a manifestation of Raynaud's phenomenon: Case reports. *BMJ*; 314 doi: <http://dx.doi.org/10.1136/bmj.314.7081.644> (Published 01 March 1997)
- Levien, T. L. (2010). Advances in the treatment of Raynaud's phenomenon. *Vascular Health Risk Management*, 6, 167-177.
- McClellan, H. L., Hepworth, A., Garbin, C., Rowan, M., Deacon, J., Hartmann, P., & Geddes, D. T. (2012). Nipple pain during breastfeeding with or without visible trauma. *Journal of Human Lactation*. 28(4), 511-521. doi: 10.1177/0890334412444464

(c) Debbie Albert, PhD, BSN, IBCLC 2015

72

References

- Morino, C., & Winn, S. M. (2007). Raynaud's phenomenon of the nipples: An elusive diagnosis. *Journal of Human Lactation*, 23, 191-193. doi: 10.1177/0890334407300018
- Morrill, J., Heinig, M., Pappagianis, D., & Dewey, K. (2005). Risk factors for mammary candidiasis among lactating women. *JOGNN*, 34, 37-45.
- Newman, J., & Kernerman, E. (2009). Vasospasm and Raynaud's phenomenon. International Breastfeeding Centre. Retrieved from: http://www.nbc.ca/index.php?option=com_content&view=article&id=52:vasospasm-and-raynauds-phenomenon&catid=5:information&Itemid=17

(c) Debbie Albert, PhD, BSN, IBCLC 2015

73

References

- Odom EC, Ruowei L, Scanlon KS, Perrine CG, Grummer-Strawn L (2013) Reasons for earlier than desired cessation of breastfeeding. *Pediatrics*. 131. e726. February 18. DOI: 10.1542/peds.2012-1295
- O'Sullivan, S., & Keith, M. (2011). Raynaud phenomenon of the nipple. A rare finding in rheumatology clinic. *Journal of Clinical Rheumatology*, 17(7), 371-372.
- Purdie, G.L., Purdie, D. J., Harrison, A.A. (2011). Raynaud's phenomenon in medical laboratory workers who work with solvents. *Journal of Rheumatology*, 38(9); 1940-6. doi: 10.3899/jrheum.101129

(c) Debbie Albert, PhD, BSN, IBCLC 2015

74

References

- Sealy, C. (2011). Raynaud's syndrome and breastfeeding. Retrieved from: http://www.breastfeeding.com/helpme/helpme_askle_a_ns45.html
- Strong, G. & Mele, N. (2013). Raynaud's phenomenon, candidiasis and nipple pain. *Journal of Clinical Lactation*, 4(1) 21-27.
- St. John, T. M. (2014) Vasoconstrictor Medications. Retrieved from <http://www.livestrong.com/article/107677-drug-names-vasoconstrictors/>

(c) Debbie Albert, PhD, BSN, IBCLC 2015

75

References

- United States Breastfeeding Committee. (2010). Core competencies in breastfeeding care and services for all health professionals (Revised edition). Retrieved from: <http://www.usbreastfeeding.org/HealthCare/TrainingforHealthCareProfessionals/CoreCompetencies/tabid/225/Default.aspx>
- U.S. Department of Health and Human Services (2011). The Surgeon General's Call to Action to Support Breastfeeding. Retrieved from: www.surgeongeneral.gov/library/calls/breastfeeding/calltoactiontosupportbreastfeeding.pdf
- U.S. Department of Health and Human Services, HHS Press Office (2012, July 31). Health care law gives women control over their care, offers free preventative services to 47 million women. (Press release). Retrieved from: www.hhs.gov/news/press/2012press/07/20120731a.html

(c) Debbie Albert, PhD, BSN, IBCLC 2015

76

References

- U.S. Department of Health and Human Services, National Institutes of Health, National Heart, Lung, and Blood Institute. (2011). What is Raynaud's? Retrieved from: <http://www.nhlbi.nih.gov/health/health-topics/topics/raynaud/printall-index.html>
- Walker, M. (2008). Conquering common breast-feeding problems. *Journal of Perinatal & Neonatal Nursing*, 22, 267-274.
- Wambach, K. & Riordan (2016). Breastfeeding and human lactation (5th ed.). Sudbury: Jones and Bartlett.

(c) Debbie Albert, PhD, BSN, IBCLC 2015

77