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Revisiting Nipple and Breast Pain

A Conversation With Anne Eglash, MD

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Barbara D. Robertson and Dr. Anne Eglash discuss Dr. Eglash's latest thoughts on breast and nipple pain. Unresolved breast and nipple pain are one of the top reasons for early weaning. Dr. Eglash has a breastfeeding medical practice and helps mothers frequently to help resolve their chronic breast and nipple pain. Old treatments are discussed in the context of new research findings and new treatment possibilities are explored.

Keywords: breastfeeding, lactation, nipple pain, breast pain, vasospasm, biofilm, mastitis, yeast, probiotics, IBCLC, breast dysbiosis

Barbara Robertson recently had an opportunity to speak with Anne Eglash, MD, IBCLC, FABM, about breast and nipple pain. Anne obtained her International Board Certified Lactation Consultant (IBCLC) certification in 1994, the same year she cofounded the Academy of Breastfeeding Medicine with 11 other physicians. The main purpose for starting this organization was to educate physicians and other health professionals about breastfeeding.

This was based on my experience with my first two kids before 1994 of not finding any help in the medical field. I found help from other people but not physicians and nurses. I feel like my life has been dedicated to physician and other health professional education in breastfeeding.

Dr. Eglash is a clinical professor with the University of Wisconsin School of Medicine and Public Health, in the Department of Family Medicine. She is a family physician and has been a board certified lactation consultant since 1994. She is the medical director of the outpatient lactation program at Meriter Hospital and the medical director of the University of Wisconsin Lactation Clinic, which is a teaching breastfeeding clinic. She is a cofounder of the Academy of Breastfeeding Medicine and is the co-medical director and cofounder of the Mothers' Milk Bank of the Western Great Lakes. She is also the founder and president of The Milk Mob (www.themilkmob.org), a nonprofit organization dedicated to outpatient breastfeeding education for health professionals and other community breastfeeding supporters.

She has published many peer-reviewed articles on breastfeeding medicine and sits on the editorial board for *Breastfeeding Medicine*. She hosts and produces a free breastfeeding medicine podcast series available on iTunes.

Figure 1. Anne Eglash



BR: Thank you for taking the time to do this interview. There is a lot of confusion about breast pain and nipple pain. The more we can try to help IBCLCs understand the difference in types of pain and possible treatments, I think it will be helping a lot of moms and babies. There seems to be a lot of reluctance in the medical profession in my area to use science when diagnosing breast and nipple pain. What kind of medical testing can be done to help diagnose pain?

AE: The big thing about diagnosing is really just like anything else in medicine. The first thing that people have to do is listen to the patient. Ninety percent of the information I'm going to get about that patient to make the decision is going to come directly from what the patient

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tells me. So, it's not just about the exam. I mean the exam is important definitely, but it's like anything else, you need to listen to the patient. The physicians don't know the questions to ask until they understand the problem. So physicians cannot evaluate and make a diagnosis about breast pain when they don't know anything about it. What they need is education. Just like if someone comes in to me with a headache and I know nothing about headaches. What kind of questions am I going to ask? I don't know. What's important? Is it important that it is pounding? The first thing that has to happen is that doctors need education about breastfeeding.

If you're going to make a diagnosis of breast pain, you have to understand the pattern of the pain, when the mother is having pain, does it happen at the onset of latch, does the latch hurt at all, does the pain happen after the feeding, is it always associated with blanching, is it never associated with blanching, has there been mastitis, plugged ducts? There is a whole list of questions that have to be asked in order for me to determine what is causing the breast pain. Then comes the physical exam: looking at the breast, looking to see if there are sores, any evidence of infection, any redness or swelling, any abscess, is the breast tender? I do a manual expression to see if that causes pain, a breast palpation to see if that is tender. The breast is not going to be tender necessarily if it's vasospasm or latch pain. If a woman has a dysbiosis, where there is a bacterial imbalance in the ducts, her breast is generally going to be really tender. Or if she has mastitis, she will be tender.

Then the next thing I would do, if I think it is warranted, is a breast milk culture. And I do the culture a very specific way. There is a protocol that I have at the University of Washington lab. I make sure they do sensitivities on different antibiotics to see what antibiotics the bacteria are sensitive to. And then I just put all that information together. And, of course, I'm watching breastfeeding as part of the exam. I look at the babies to see if they have any lip or tongue tie, torticollis, or thrush. Then I watch the babies nurse to make sure that looks okay. I ask moms to bring their pump to make sure they are not suffering pump trauma. This kind of evaluation, which is another limitation to doctors, can take me an hour to evaluate a patient. Because you have to examine mom, examine baby, and evaluate nursing . . . (you have to) find an hour for a medical problem that is really difficult.

BR: So back to my question about what type of testing can be done to evaluate nipple pain. The testing, that's not really the problem. The problem is the doctors are unfamiliar with breastfeeding, period, to even ask the

right questions. The idea that somehow bacterial or yeast testing is the missing link really is not the problem. It starts with a basic lack of breastfeeding knowledge to begin with from the get go.

AE: There is no specific test to know what is causing the pain. It all has to do with health history and physical exams. Most of the data is from the dairy industry, about the concerns about bacteria in the dairy industry.

BR: Side question . . . Does the dairy industry struggle with yeast the same way we do?

AE: No. And the reason why is because (the pain) is not yeast. This is a bacterial imbalance. They don't worry about yeast. I don't worry about yeast. Yeast is usually not the issue. This is usually bacterial imbalance.

BR: That's what I have believed for years by reading the literature and talking with other professionals. Is that yeast is overly diagnosed (**AE:** Yes.), and we are not getting to the real problem. And then with yeast moms are told they have to boil their pumps parts, their pacifiers, nursing bras, and they have to sterilize their bottles. And I think about a vaginal yeast infection, you take your medication, whatever you are going to do, and you are done. You don't boil your underwear or throw them away. You just wash them in the wash, put them back on, and the yeast doesn't come back.

AE: Right.

BR: My conclusions about yeast have been, and you can tell me right or wrong, that if I if my yeast is in balance, we all have yeast all the time, then you can't give me a yeast overgrowth.

AE: You can have a yeast overgrowth. You can have an imbalance.

BR: For sure, but if my yeast is in balance, you can't "give" me a yeast overgrowth? My mom with yeast infection can't give it to me?

AE: Yes, I think so. For example, a man who has a groin infection, like *Candida*, he will pass yeast to his sexual partner. A woman who has a vaginal yeast infection, the man might start to get itchy and get yeast in the crevices of his penis or scrotum. So you can actually pass it.

BR: Can you tell me more about that? Because it seems to me you're either in balance or out of balance. And if your yeast is in balance, how can another person give you a yeast imbalance?

AE: I don't have an answer to that. I don't know.

BR: You have just seen it professionally and it happens?

AE: Exactly. Yes, and it might be that that person just eats a lot of sugar, or has diabetes, so the partners are susceptible. It's a good point you are making. We all reach a certain balance with our yeast, and when most women have a vaginal yeast infection, the majority of men do not get jock itch. So this is a really good point you are bringing up. The researchers in Spain talk about this whole issue, that the breast milieu is a very inhospitable place for *Candida* to grow, so it makes sense that *Candida* wouldn't grow in the breast, and they also talk about how there is this relationship between *Candida* and *Staph epi*, which is the predominate bacteria in breast milk. So, whenever a woman lactates, her milk ducts are populated by a very complicated microbiome. There are lots of different bacteria, probiotics, and *Staph epidermatitis*. *Staph epi* is the bacterium that is on every one's skin, and it highly populates the breast. The theory is when that *Staph epi* comes in contact with the yeast that is in the baby's mouth, that *Staph epi* changes its behavior. It turns on certain genes and the bacteria forms a biofilm. And have you ever seen women who have chronic breast pain and they get that mucky white stuff on their nipples?

BR: Yes, it's crusty. And from what I have heard, from Marsha Walker and other people, one should wash with soap and water to help clear that film.

AE: It not a yeast infection. But everyone thinks that it is. It's not just on the nipples, it's in the ducts. So what happens is *Staph epi* is forming that biofilm as an umbrella to protect itself from the body's own antibacterial factors. Some of the factors in the breast milk are there to serve the breast itself, to keep the breast healthy. So when *Staph epi* is exposed to the *Candida*, the *Staph epi* can turn on certain genes that allow it to form that biofilm. And that is why I think this whole history of "Oh, you have yeast and your baby has yeast because you have yeast." Well it's not that. It's the formation of what I would call a *dysbiosis*, a term that means bad microbiotic environment. The bacterial environment is off.

Suddenly you have the bacteria milieu going awry, very much like bacterial vaginosis. I've been looking at bacterial vaginosis . . . what we have found is women with a history of bacterial vaginosis also have low vitamin D. Low D levels are associated with recurrent bacterial vaginosis. I have gotten all my patients who suffer with recurrent bacterial vaginosis to take vitamin D regularly and guess what . . . it goes away. The other thing is, look at African American women, especially in the North. They have a higher incidence of bacterial vaginosis, and

guess what? They are prone to lower vitamin D levels because they have darker skin.

And what's interesting is in the dairy industry, there has been some work looking at giving cows vitamin D by injecting it into their udders to reduce the risk of mastitis. So vitamin D is really important for bacterial balance and one's own immune system. There is a lot of work being done on vitamin D modulating the immune system. Low vitamin D levels are associated with multiple sclerosis. There is some thought that people are healthier, and have shorter courses of influenza and phenomena, if their vitamin D levels are normal. Vitamin D is there for more than just bones. It is there for immune system health. That's another thing I try to get women to do, when they have what I think is this dysbiosis of this chronic breast pain, I have them take high levels of vitamin D.

BR: What level of vitamin D do you want moms to have?

AE: 50–80.

BR: So that may be something a doctor might consider if a mom is having chronic breast pain . . . and things aren't working to help clear up the pain. They might consider having the mother do a vitamin D test to check her levels.

AE: Low D may not be causative. You still probably have to treat the infection. I still have to get them out of the situation with the biofilm. It doesn't seem to rectify itself. Taking vitamin D is hopefully preventive. I don't know that for sure. Once women have what I believe to be dysbiosis, I can't get it to go away just by having them take high doses of D.

BR: No, I assume an antibiotic of some sort.

AE: Right. Then the other thing is, there has also been some work in Spain looking at *Lactobacillus salivarius*. You know how we talk about taking probiotics for your gut or for your vagina . . . well, the science has now demonstrated that people need to take probiotics that are specific to the issue that they have. And so for the breast, the specific probiotic is *Lactobacillus salivarius*. There are some brands of probiotics that have it. So when I'm treating women, I make sure they are taking that particular type of probiotic. And then an antibiotic, if we have to.

BR: So the shooting pains that we used to think was ductal yeast, what you are saying (the yeast from the baby's mouth) is triggering the response in the mom's body. It's not yeast at all. It is a type of bacteria, the biofilm.

AE: Yeah. I don't know for sure that everyone has biofilm. I just call it dysbiosis, where things are just out of balance and that causes pain. It's very similar to the symptoms women with bacteria vaginosis experience; they have itchy, burning pain, sometimes sharp shooting pains up through into their uterus.

BR: Very interesting . . . Lisa Amir talks about women who are diagnosed as having a yeast overgrowth . . . that taking a course of Diflucan cures 100% of mothers. By the way, I am not talking about moms that have chronic yeast problems. They fall into a different category. We are talking about mothers who all of sudden do have a yeast overgrowth; a short course of Diflucan should take care of it. So, we have moms who have been boiling pump parts, sterilizing this, sterilizing that, on and off of Diflucan for 6 months.

AE: Exactly. My personal conviction is that Diflucan is antibacterial to some degree. A lot of women who come to see me, they will have been on fluconazole for 7–10 days, or 2 weeks, depending on who gave her the prescription. When asked how much that helped, they say 40%–60%. And what is interesting is 100% of the time, if a mom has only been taking fluconazole, their cultures are negative; they don't have any *Staph epi*. There has been no research that I can see to show whether or not fluconazole is antibacterial. But I suspect it is because these moms should have normal levels of *Staph epi*. Everyone has it and their cultures are totally sterile. So (the fluconazole) is killing something.

BR: Right. I have also heard that Diflucan, fluconazole, is an anti-inflammatory, which can help you feel better while you are taking it.

AE: Yes. That's true, too.

BR: What are some of the key questions IBCLCs need to ask a mom with nipple pain or breast pain? What questions can we use to pin point are we talking about yeast or are we talking about bacterial? Are we thinking about vasospasm? Are we thinking about latch? Baby damage?

AE: One of the lactation consultant's main roles is to help with latching and positioning. Make sure it's not the most common cause, which is going to be infant positioning and latch. Her role is to ask about the nature of the pain. Does the pain occur with latch? That's a clue. If the pain continues throughout the feeding, that would be consistent with it being a latch-and-suck issue. If the baby latches really well, the nipple is way back by the uvula in the baby's mouth. Women with chronic pain from a dysbiosis are usually not bothered much by pain

during the course of the feeding. Sometimes at the end of the feed, they start to get bothered again. If the pain is continuing throughout the feeding, then you really want to think about whether or not it is a latch issue. And of course, watching to see what things look like, to see how the baby nursed. Check to see if there is ongoing nipple trauma, if the nipple looks pinched or distorted. Try to fix positioning, the way she is latching, or the way she is delatching, whatever it is.

If the pain seems to happen after nursing, then I think more about bacterial infection or dysbiosis. Now the trick in between here will be in determining vasospasm. With vasospasm, a lot of time the pain won't start during the course of nursing. It is easy to identify because the nipple will look pale or purple after feeding when the baby comes off. Where it gets messy is if the mom is having vasospasms due to infection. Then someone might have a difficult time sorting out whether the pain is due to vasospasm or infection. The way I sort that out is by asking the mom if she has pain at times the nipple is not pale or purple. If the pain continues to go on for an hour after nursing, but the nipple is only pale or purple for 15 minutes, then I more strongly suspect infection. The moms say they only have pain when the nipple is pain or purple, when they get out of the shower, when they change their shirt. That's when it hurts. The other clue to figure out if vasospasm is due to infection is, does heat help? Because heat by itself is not going to help a chronic dysbiosis type pain. But it's going to help immensely with vasospasm pain. Women will notice right away, "Wow, that really takes the pain away." And then you can better determine what it is. I would say from my experience, it's very uncommon for the pain to be primarily vasospasms. It's probably 5% of the women with chronic pain. I see a lot of women with chronic pain. Probably only 5% are 100% vasospasm.

BR: This is new to me. I did not know a vasospasm could be caused by an infection . . . that it could be a symptom of infection. Can you tell me a little more about that and how that works?

AE: I don't know why it works that way. It can be primary where it is just a vasospasm, or it can be secondary due to trauma and infection. I think that the majority of the cases that I see are due to trauma. And the nipple doesn't progress (to changing colors). It just stays pale, and the pain is not directly associated with the color of the nipple. The mothers won't have pain when the nipple is pale, and they will have pain when the nipple looks normal. The other big reason a nipple can look pale or purple can be due to pumping. Pumping can be pretty traumatic.

BR: Right. Often moms have no idea that different shield sizes exist and that pumps should only be turned up so far. More pressure or vacuum is not better. There are a lot of bad pumps on the market.

AE: We also need different shaped breast shields. Breasts come in all shapes and sizes.

BR: Often, the IBCLC is the one who is looking at these moms and sorting out what the pain might be from. They have a theory as to the cause of the pain. What are the next steps? Obviously, refer back to the primary healthcare provider, but what does that person do? What do you do?

AE: I do a culture, often a course of antibiotics that that particular bacteria is sensitive to. This can involve long courses of antibiotics. You need a doctor who is willing to try this and check back in 2 weeks to make sure things are working. If things aren't working, you have to try something else. Follow-up is key. You need good enough improvement to stay on that course of antibiotics. It does take a little bit of experience to know how to treat. I think there are a lot of women who never get their pain taken care of.

BR: I do, too. And we know that pain is one of the most common reasons to quit breastfeeding. So, if we can't get that pain resolved for her, the odds of her weaning early are greatly increased. So, it sounds like so much more education needs to be done in the medical community.

AE: Absolutely. And there needs to be a lot more follow-up. That is what concerns me about the tongue-tie clipping. "See ya, come back if there is a problem" is what moms are told after a clipping. A mom is not likely to come back if she is still in pain. You have to schedule

them back to follow-up. Follow-up is important because if they don't have the support, they are going to think, "Ok well I guess that's it." They don't have any hope that anyone can help them. So we don't have a lot of good follow-up studies on chronic breast pain. That's why I only give 1-2 weeks of antibiotics at a time. I need my mom to come back and let me know what is going on. I think follow-up is really important.

BR: When IBCLCs and physicians are working with mothers, moms need to hear that this is just a first course of action, and if this does not work, then there are other things to try. Sometimes you don't know what the problem is until you try the treatment, and then if it responds to treatment, and then that can help you make another diagnosis. They need to hear that loud and clear. If this doesn't work, we will try something else.

BR: Thank you so much for taking the time for this interview! Anything else you would like to add?

AE: You're welcome. Let me tell you a little bit more about my latest project, The Milk Mob. The goal of The Milk Mob is to partner with communities and medical systems that want to train their nurses and other outpatient supporters in breastfeeding. We are looking for groups that want outpatient breastfeeding training. If you want more info, go to <https://themilkmob.org/>. Our first program, The Office Nurse Breastfeeding Champion, is a 16-hour course designed to provide breastfeeding support in the primary care medical home (family physician, pediatrician, midwife, and/or obstetrician's office). This program teaches office nurses, medical assistants, and other outpatient health professional's practical and evidence-based breastfeeding triage and management skills.



Barbara D. Robertson, MA, IBCLC, RLC, has been involved in education for more than 27 years. She received a bachelor's degree in Elementary Education in 1988 and her master's in education in 1995. Barbara left teaching elementary students in 1995 to raise her two children. She is a board certified lactation consultant. Barbara is the director of The Breastfeeding Center of Ann Arbor. Barbara has developed 90-hour professional lactation training and a 20-hour course which fulfills the "Baby Friendly" education requirements. Barbara volunteered for the U.S. Lactation Consultation Association (USLCA) as the director of Professional Development for 4.5 years.

Barbara is currently an associate editor for *Clinical Lactation*, a journal she helped create for USLCA. She loves working with mothers and babies, helping them with breastfeeding problems in whatever way she can.