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Concerns About Breast Milk: Valid or Not?

KEY HEALTH CONSIDERATIONS OF BREAST-FEEDING.

Although breast milk is widely considered to be the best nutrition for infants, research tells us that exclusively breast-fed babies may be at elevated risk for health problems such as vitamin D deficiency. What other health considerations may be associated with breast-feeding. Can we definitively say that breast milk is still the best? You are listening to ReachMD, The Channel for Medical Professionals. Welcome to The Clinician's Roundtable. I am your host, Dr. Jennifer Shu, Practicing General Pediatrician in Arthur. Our guest is Dr. Lori Feldman Winter, Associate Professor of Pediatrics at the University of Medicine and Dentistry at New Jersey at Camden and an Executive Committee member of the American Academy of Pediatrics section on breast-feeding.

DR. JENNIFER SHU:

Welcome Dr. Winter.

DR. LORI FELDMAN-WINTER:

Thank you for having me.

DR. JENNIFER SHU:

We are talking about some health considerations with breast-feeding and one thing that has been reported recently is that vitamin D deficiency in exclusively breast-fed babies may be a concern. Can you explain a little bit about this?

DR. LORI FELDMAN-WINTER:

Well, I think that we are really in the midst of an epidemic of vitamin D deficiency and it's not just about infants who are breast-feeding, it's really throughout the lifespan, really coincident with recommendations to reduce our exposure to sunlight and so the reduced amount of UVB radiation that would ordinarily provide some vitamin D absorption in our skin, we have seen really a deficiency in the amount of intake of vitamin D. The only other way to receive vitamin D other than sunlight is through diet and the dietary sources of vitamin D are typically difficult to get and so breast milk as well as almost all other foods are not equipped or supplemented with vitamin D. The only other dietary source would be fatty fish or fish oils or the old cod-liver oil. The reason for the recommendation of cod-liver oil was to be able to provide vitamin D. So, the difference between breast-fed infants and formula-fed infants is that formula in fact is supplemented

with vitamin D, and so because in this country, the majority of infants get some formula even if they are not exclusively formula-fed, exclusive breast-feeding is so uncommon that most infants do get some formula. Vitamin D really didn't become an issue until we started targeting exclusive breast-feeding and we started seeing a rise in exclusive breast-feeding infants not receiving vitamin D from that supplemented formula. So, our recommendations became published in 2003 for the first time in the American Academy of Pediatrics to begin to supplement all infants that are breast-feeding and getting less than half a liter of formula with vitamin D, so that infants don't become deficient. The way we would recognize infants that are vitamin D deficient because of exclusive breast-feeding is that ultimately in severe cases they would get rickets, which can be quite severe. In addition, there are very many babies that are deficient in vitamin D that don't have overt rickets, but have biochemical primers that would suggest that they are vitamin D deficient and this can lead to problems such immune deficiencies because vitamin D is important in the immune system and long-term vitamin D is important in cancer prevention. So, it is very important that vitamin D is in the diet given that we don't recommend the infants get vitamin D through sunlight. Our recommendations are going to change in the next month. We are going to have a publication updating the 2003 recommendation, actually doubling the dose of what we initially recommended recognizing that at the 2003 recommendation dose of vitamin D, infants were still deficient, not at the levels that we would like to see again to maintain good immunity.

DR. JENNIFER SHU:

So, the new dose will then be 400 International Units per day up from 200.

DR. LORI FELDMAN-WINTER:

That's correct. With that new dose, what we recognize is that formula-fed infants that are exclusively formula feeding will get that recommended dose, but breast-feeding infants, even if they are supplemented, it's unlikely if they are still breast-feeding that they will be getting a liter of formula plus breast-feeding. So, really any breast-feeding babies should be supplemented with additional vitamin D drops.

DR. JENNIFER SHU:

So, I have read some reports that the vitamin D supplementation actually is not really happening at rates that one would hope. Do you have any information on that?

DR. LORI FELDMAN-WINTER:

Well, I think that there is a lot of resistance, particularly among exclusively breast-feeding women that have breast-fed other babies that say, "Well, I didn't do this before, my baby seems just fine. Why do I need to do this?" And I think it's because of the difference between what I mentioned which is overt vitamin D deficiency resulting in rickets versus this vitamin D insufficiency leading to biochemical parameters that might later on lead to immune problems. There is a whole host of different autoimmune problems that can arise that have been linked to vitamin D insufficiency and that's the condition that I think people don't understand and don't recognize. We are seeing in the adolescent population lots of girls that have vitamin D insufficiency ultimately having problems such as stress fractures and then going into child-bearing age, already vitamin D insufficient, and then becoming deficient in pregnancy when calcium is leached from the bone throughout pregnancy and lactation. So, it's really a life cycle issue that we should begin to address right at the, get go once infants are born, we should begin to supplement. There is a resistance among community members, but I think there is also resistant or may be just lack of awareness among pediatricians, even among my residents that something that I have to continually reinforce that they should be giving those vitamin D drops right from the get go.

DR. JENNIFER SHU:

What about parents who say, "you know, my child does not like the taste of these drops, I would rather just put them in the sun a few times a day." What's your response to that?

DR. LORI FELDMAN-WINTER:

Well, we really don't have any safe recommendations for sun exposure because #1, we know that there is a risk of skin cancer, melanomas that are on the rise. So, we can't just say go expose yourself to sun even though it doesn't take a lot of exposure to get vitamin D. There is an issue with not only not having a recommendation to expose your skin to sun because of the concerns for melanoma, but in addition the environment has changed such that even if you are outside in what we think is sunlight, because of environmental changes, the amount of UVB is greatly reduced because of issues such as ozone. So, particularly in areas in the Northern latitude as well as in inner cities, it's very unlikely that you would be able to receive the adequate amounts of UVB. It also differs depending on skin color. So, those of darker skin are much less likely to absorb vitamin D.

DR. JENNIFER SHU:

If you have just joined us, you are listening to the Clinician's Roundtable on ReachMD. I am your host, Dr. Jennifer Shu. Our guest is Dr. Lori Feldman-Winter, Associate Professor of Pediatrics at the University of Medicine and Dentistry at New Jersey at Camden and an Executive Committee member of the American Academy of Pediatrics section on breast-feedings. We are discussing key health considerations of breast-feeding.

Are there some instances where breast-feeding actually put the child at greater risk for things such as newborn jaundice, for example?

DR. LORI FELDMAN-WINTER:

So, it is true that jaundice is more common in breast-fed babies than in formula-fed babies and this really stems from the issue of support and managing breast-feedings. So, it's true that babies who are breast-fed have higher levels of bilirubin. However, bilirubin in and of itself is not a cause for concern. In fact, bilirubin is not all bad. It's an antioxidant and it's supposed to be high. However, very high levels of bilirubin we worry about because of kernicterus and so why would a breast-fed baby have very high levels of bilirubin. Well, a common reason is that the mothers and their babies are just not breast-feeding adequately, so they are not breast-feeding often enough or the baby is not latching on and really receiving mother's milk. So, we call that breast-feeding jaundice, but is better termed as probably breast-non-feeding jaundice as Dr. Gartner would say and it's really because babies aren't getting adequate nutrition that their bilirubin stays in the body through enterohepatic circulation and rises to the extent that babies need to be treated. The most important factor to help control significant hyperbilirubinemia in the breast-feeding population is close observation followup. New recommendations are going to suggest that all babies should have some measure of the bilirubin before discharge and that bilirubin should be plotted on the Bhutani nomograms and that will indicate when that next bilirubin level ought to be checked, and then depending on condition such as the gestational age and health and wellness or sickness of the infant, then phototherapy guidelines will apply to the different bilirubin levels depending on the age of the infant. But the most important way to prevent bilirubin levels from getting to the point of kernicterus or concern for exchange transfusion to prevent kernicterus is close observation, close followup, and that's why we recommend that all breast-feeding babies, really all babies, need to be seen by somebody who is knowledgeable and knows a lot about breast-feeding and knows a lot about jaundice no more than 48 hours after hospital discharge.

DR. JENNIFER SHU:

And the AAP recommends exclusive breast-feeding for the first six months and then continuing with complementary foods until at least a year and then longer if mutually desired by mom and baby. Are there any health advantages or disadvantages to breast-feeding children beyond a year?

DR. LORI FELDMAN-WINTER:

Well, we used to think that continued breast-feeding was somehow incompatible with normal development of the infant, in fact the infants, toddlers who continue to breast-feed beyond their first year of life would somehow have some behavioral issues that would be difficult to deal with and I remember being taught this when I was a resident. Looking at data that examines the question of whether or not continued breast-feeding adversely affects the behavior of infants, it's clear that not only is it not damaging, but it's actually beneficial so that toddlers actually develop greater independence and self-sustaining skills in terms of being able to play and be engaged in activities with confidence more than their peers if they continue to breast-feed. So, there are no behavioral reasons to stop breast-feeding. There is also a question of what good does it do, how much benefit can really be attained through continued breast-feeding and breast milk continues to have all of the immune benefits that it had all along. So, for example, the secretory IgA is still present. So, there is still some protection against gastroenteritis, against ear infections, things that continue to occur in infants well beyond a year of life will continue to be protected. Finally, there are data that suggest that the longer you breast-feed, really with every year of breast-feeding, you continue to reduce the mother's risk of breast cancer. So, there is a 28% reduction in the risk of breast cancer from every year of breast-feeding. So, mothers that breast-feed for two years, there is one study that shows a two-thirds reduction in overall risk of breast cancer and that's probably some of the reason why the World Health Organization recommends breast-feeding for at least two years as apposed to the AAP recommendation of one year.

DR. JENNIFER SHU:

I would like to thank our guest, Dr. Lori Feldman-Winter.

We have been discussing key health considerations of breast-feeding. I am Dr. Jennifer Shu. You are still listening to The Clinician's Roundtable on ReachMD, The Channel for Medical Professionals. Be sure to visit our website at www.reachmd.com featuring on-demand podcasts of our entire library and thank you for listening.