



PIC QUESTION OF THE WEEK: 1/02/06

Q: Are there any risks using tooth whitening products by a mother who is breastfeeding a 6-month-old girl?

A: Tooth *whitening* can be accomplished in a number of ways. Whitening toothpastes contain abrasive compounds (not bleaches) that polish and remove superficial stains resulting in improved dental appearance. They do not alter the actual color of teeth. These compounds are not orally absorbed and pose no problem during breastfeeding. Whitening strips or gels (even those dispensed by the dentist) generally contain carbamide peroxide (10-22%) or hydrogen peroxide (3-6%). They can be dispensed by a dentist or obtained without a prescription. After application, these products actually bleach the tooth enamel. Carbamide peroxide is rapidly converted by tissue and salivary enzymes to hydrogen peroxide (the bleaching agent). The compound is not absorbed into maternal circulation, thus it will not gain entry into human milk. Lastly, bleaching conducted in the dentist's office is generally accomplished with a 35% hydrogen peroxide solution. Again, the rapid conversion of hydrogen peroxide to nascent oxygen and water results only in local effects upon dental enamel and oral tissue. Patients should consult their dentists for selection of the optimal method to whiten their teeth. There is little, if any, evidence that tooth whitening products (and procedures) pose a risk to the breastfeeding infant. Some authors, however, suggest that the procedure might be postponed until breastfeeding has been completed. One must also consider that the risk of an adverse reaction to a drug or chemical transferred through breast milk is extremely rare in a child who is 6 months of age. A review (published in 2003) of the medical literature identified only 100 suspected cases of adverse effects in infants from maternal drug administration. Interestingly, based on causality criteria, only 53% were felt to be *probable* and the remainder was deemed *possible*. Nearly 80% of all of the cases were observed in infants ≤ 2 months of age. Only 4 adverse reactions occurred in children > 6 months old. The authors concluded, "By taking a few simple precautions in drug selection and considering the infant's age, breastfeeding rarely needs to be discouraged or discontinued when a mother needs drug therapy." Based on this child's age and lack of systemic absorption of tooth whiteners by the mother, the risk of continued breastfeeding would appear to be minimal.

References:

- American Dental Association. ADA statement on the safety and effectiveness of tooth whitening products. <http://www.ada.org/prof/resources/position/statements> (accessed 2005 December 21).
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- Hale TW. Medications and mother's milk. 11th ed. Amarillo:Pharmasoft;2004.

John G. Lech, Pharm.D.

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