

The Science Of Pumping And Dumping: Are Medications And Breast Milk Compatible?

By Pat Olney, MS, CGC, Pregnancy Risk Specialist, MotherToBaby Georgia

One day in early June I received a frantic call from a woman who had first called Georgia's Poison Control Center worried about the agent used to treat her varicose veins. She thought that she did the right thing by postponing her treatment until after she gave birth, but now was concerned about breastfeeding her newborn. The medical director at poison control, who is one of our advisory board members, gave her the correct information: "Call Pat Olney at MotherToBaby!"

The caller's vascular surgeon advised her to pump her breast milk over the next 24-48 hours, and discard it; otherwise known as pump and dump. The first thing she did before calling poison control was surf the Internet for answers. She began feeling guilty about having had the procedure. She lamented, "Why didn't I wait until after my baby was done nursing!"

First, I needed to learn a little bit about varicose veins. Varicose veins are more common in women than men, and women may first develop varicose veins during pregnancy. Pregnancy puts an added burden on the veins as the amount of blood flowing through the veins increases. Veins in the legs are already working against gravity, and pressure from the increased blood volume can cause veins to swell and bulge near the surface of the skin. They tend to get worse with each subsequent pregnancy, as women get older, or if a woman is overweight. Varicose veins can be very painful. Typically, the problem tends to improve after delivery. For our caller, the pain and discomfort continued and she decided to seek treatment.

The agent used for her varicose vein treatment was sodium tetradecyl sulfate (STS). I consulted my brand new 2014 edition of Dr. Thomas Hale's manual of lactational pharmacology, "[Medications & Mother's Milk](#)." Dr. Hale's book is used all over the world, and he is recognized as an expert in this highly specialized field. STS, a sclerosing agent, is injected into the affected vein. Dr. Hale describes this agent: "...an anionic surfactant which causes local inflammation, and thrombus formation, thereby occluding and eventually obliterating the affected vein." He goes on to say "severe reactions such as anaphylactic shock, pulmonary embolism have been reported, although rare."

Sounds terrible, doesn't it? I said to myself...no wonder this woman called poison control!

Dr. Hale developed the following lactation risk categories:

L1 Compatible: drug has been taken by a large number of breastfeeding women without any observed increase in adverse effects in the infant; controlled studies fail to demonstrate a risk to the infant, or the product is not orally bioavailable in an infant

L2 Probably compatible: drug has been studied in a limited number of breastfeeding women without an increase in adverse effects in the infant, and/or the evidence of a demonstrated risk is remote

L3 Probably compatible: there are no controlled studies in breastfeeding women; however, the risk of untoward effects to breastfed infant is possible, or controlled studies show only minimal non-threatening adverse effects; drugs should be given only if potential benefit justifies potential risk to infant; new medications that have no published data are automatically categorized in this category, regardless of how safe they may be

L4 Possibly hazardous: positive evidence of risk to breastfed infant or to breast milk production; benefits of use may be acceptable despite the risk to infant; e.g. if the drug is needed in a life-threatening situation or a serious disease for which safer drugs cannot be used or are ineffective

L5 Hazardous: studies in breastfeeding mothers have demonstrated significant and documented risk to the infant based on human experience, or is a medication that has a high risk of causing significant damage to infant; drug is contraindicated in women breastfeeding an infant

Did the vascular surgeon give our caller the correct information?

Sodium tetradecyl sulfate falls into lactation category L3. There are no studies done in nursing women, and there is no

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data on its transfer into human milk. Dr. Hale goes on and states, "This product could be hazardous if introduced in the infant through breast milk. Therefore, extreme caution is recommended with its use in a lactating mother."

Since there are no published studies, and no data, our caller was given the correct advice: pump and dump. Fortunately, her baby was already taking an occasional bottle, so she thought the baby would easily switch back to breastfeeding.

Sometimes the advice given to lactating mothers is not so straightforward. As summarized in a clinical report published by the American Academy of Pediatrics (AAP), "Many breastfeeding women are wrongly advised to stop taking necessary medications or to discontinue nursing because of potential harmful effects on their infants. Not all drugs are present in clinically significant amounts in human milk or pose a risk to the infant. Certain classes of drugs can be problematic, either because of accumulation in breast milk or due to their effects on the nursing infant or mother."

When counseling a woman who has chosen to give her baby the best start in life, it's important to get the facts, even if evidence-based information is lacking.

Questions? For your FREE personalized risk assessment, call MotherToBaby toll-FREE (866) 626-6847. MotherToBaby is a service of the international non-profit Organization of Teratology Information Specialists (OTIS), a society that supports and contributes to worldwide initiatives for teratology education and research. MotherToBaby affiliates and OTIS are suggested resources by many agencies, including the Centers for Disease Control and Prevention (CDC), and are dedicated to providing evidence-based information to mothers, health care professionals, and the general public about medications and other exposures during pregnancy and while breastfeeding. Learn more at MotherToBaby.org.



Patricia Olney, MS, is a certified genetic counselor and pregnancy risk specialist at MotherToBaby Georgia, Emory University. She received her masters degree at the University of California, Berkeley and has practiced genetic counseling for more than 25 years. MotherToBaby GA is funded by the Georgia Department of Behavioral Health and Developmental Disabilities.

Reference:

The American Academy of Pediatrics (AAP) August 2013 "The Transfer of Drugs and Therapeutics Into Human Breast Milk: An Update on Selected Topics."

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.MotherToBaby.org).

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