

Can Moms Who Had a Transplant Breastfeed While Taking Tacrolimus?

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As an infant, I received the gift of life in the form of a liver transplant. Growing up, I remember taking a multitude of medications that just became part of my daily life. As the years went on, my immune system became stronger, the transplant check-ups became farther and farther in between. As the years went by, I found myself taking an extremely low dose of one immunosuppressant called tacrolimus. Inspired by my personal journey as a transplant patient, I went to medical school with a passion to care for patients as my healthcare providers had cared for me. During my training as a physician, I began to become interested in how the medicines that a person needs to take can impact pregnancy and breastfeeding.

With this interest in women's health, I pursued a rotation in Breastfeeding and Lactation Medicine. I worked alongside an amazing team of lactation specialists to help patients achieve their breastfeeding goals. I reviewed the medications that new moms were prescribed to make sure that they would address the medical needs of the mom and also have the lowest risk of impacting their developing baby. With a desire for a family of my own, I wanted to learn more about taking tacrolimus while breastfeeding. I saw firsthand how beneficial breastfeeding was and wondered if taking this medication multiple times per day would pose any risk for my developing baby. Would I ever be able to breastfeed?

Tacrolimus (Prograf®, Envarsus®, Astagraf®) is a medicine used by people who have had a transplant, like liver, kidney, or heart transplants. It helps prevent the body from rejecting the new organ. It's usually taken as a pill, but it can also be taken as an IV, as a liquid, or applied to the skin for conditions like eczema.

I found that research studies have shown promising evidence that breastfeeding while taking tacrolimus is most likely not of concern for breastfed children. One study looked at a mom who took tacrolimus twice a day. After one dose, scientists checked her breast milk and found a very small amount of tacrolimus in the milk. The amount was much lower than what is given directly to babies who need the medication.

One study involved a breastfeeding heart transplant patient who took tacrolimus throughout her pregnancy and after birth. When her baby turned one month old, tacrolimus blood levels were measured in both mom and baby. This baby's tacrolimus levels were extremely low.

Another study examined three exclusively breastfed infants and one partially breastfed infant whose mothers took oral tacrolimus. Researchers measured tacrolimus amounts in these infants between age of 15-27 days of life. None of the babies had detectable tacrolimus levels in their blood.

One of the largest studies was performed by the National Transplantation Pregnancy Registry. It looked at 68 mothers who had liver or kidney transplants. The study followed 83 babies, some for as long as 16 years. None of the babies had medical problems related to their mother's use of tacrolimus.

Tacrolimus is also used in cream form for conditions like eczema. The good news is that the risk of this cream affecting a breastfeeding baby is very low because only a small amount of the cream enters the mom's body. However, if the

cream is applied to the nipple, it should be cleaned off before the baby nurses. If a topical nipple treatment is needed, some experts recommend pimecrolimus cream over tacrolimus because it does not contain paraffin. Other treatments such as hydrocortisone ointments are better studied and are usually used first.

Breastfeeding while taking tacrolimus has been shown to be a low risk for breastfed babies. Since breast milk has many health benefits for babies, healthcare providers recommend moms who are taking tacrolimus breastfeed their babies. As with any health condition, a discussion with your healthcare provider is needed to weigh risks and benefits to determine the right choice for your family.

After learning more about the safety of breastfeeding while taking tacrolimus, I feel empowered and encouraged to breastfeed my future children, especially since breastmilk is so healthy and nourishing for babies.

References/Resources

- <https://www.ncbi.nlm.nih.gov/books/NBK544318/#:~:text=Tacrolimus%20is%20a%20medication%20used,calcineurin%20inhibitor%20class%20of%20medications>
- <https://www.ncbi.nlm.nih.gov/books/NBK501104/>
- <https://pmc.ncbi.nlm.nih.gov/articles/PMC3613954/>
- <https://www.halesmeds.com/monographs/61433?q=tacrolimus>
- <https://www.halesmeds.com/monographs/61171?q=hydrocortison>

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

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