

I have thrush. Can I give baby my expressed milk?

Candida albicans is a single-celled fungal organism that is widespread in our environment and normally lives harmlessly in the mouth, GI tract, skin and vagina. Under certain conditions (immature or weakened immune system, broken skin, hormonal changes, antibiotic or corticosteroid use, etc.) an overgrowth of candida can occur, leading to various forms of candidiasis, including oral thrush, yeast diaper rash, nipple/breast yeast, yeast vaginitis, and jock itch.

Using fresh or refrigerated milk during thrush treatment

While you and baby are being treated for yeast, your refrigerated and fresh milk may be given to baby without a problem.

Remember that it's recommended that you continue thrush treatment until one to two weeks after all thrush symptoms have disappeared.

Using milk frozen during thrush treatment

Milk frozen during thrush treatment can be given to baby without a problem while you are still being treating for thrush.

Many sources recommend that mothers do not freeze expressed milk *for later use* when they are being treated for thrush. We do know that freezing deactivates yeast, but does not kill it, so there is a theoretical risk that milk expressed during a thrush outbreak could reinfect baby at a later date. **However**, there have been no studies that tell us whether or not this defrosted milk is really a problem.

What do reference books say?

Per Riordan in *Breastfeeding and Human Lactation* (p. 259): "It is not clear whether expressed milk of a mother with candidiasis should be saved and frozen for later use. Freezing deactivates yeast but does not kill it."

Per Mohrbacher and Stock in *The Breastfeeding Answer Book* (p. 483): "Research indicates that freezing does not kill yeast. Suggest the mother give the baby any milk that was expressed and stored during a thrush outbreak while they are being treated. If that is not possible, suggest she boil it to kill any yeast before giving it to the baby."

Per Wilson-Clay and Hoover in *The Breastfeeding Atlas* (p.58): "Milk expressed during a yeast infection could possibly be a source of reinfection. Freezing does not destroy yeast."

Per Newman and Pitman in *The Ultimate Breastfeeding Book of Answers* (p. 149): "Throwing away frozen milk collected while the mother has her problem with *C. albicans* seems to me a terrible waste. Although freezing the milk does not kill this organism, it is likely, given the antifungal factors in breastmilk, that the fungus will remain in the form that does not cause problems."

How might mother's milk help to protect baby from thrush?

Mother's milk may actually help to *protect* baby against candida overgrowth, as some studies have shown a greater incidence of thrush in babies who are formula fed. Components of human milk, including sIgA and lactoferrin, are active against *Candida albicans*. In fact, because human milk inhibits the growth of candida, it can be difficult to culture candida in milk without the use of special techniques. In addition, human milk encourages the growth of "good bacteria" such as lactobacillus in baby's GI tract, which helps to limit fungal growth. *These inherent defenses against candida overgrowth may help to prevent thrush in a healthy baby who drinks expressed milk containing candida from a previous outbreak.*

Expressed milk that has been frozen should still be protective against candida overgrowth. Lactoferrin and sIgA are two of the primary components of milk that are active against candida, and both sIgA and lactoferrin activity in human milk are unchanged after 3 months of freezing at -15°C.

What are my options?

If you need to use expressed milk during thrush treatment, fresh or refrigerated milk (or milk frozen during thrush treatment) is best. If possible, save "non-thrush" frozen milk for later and avoid freezing milk until your thrush treatment has ended.

If you do pump extra milk during thrush treatment, do not discard it. Label the milk to indicate it may contain thrush, and then go ahead and freeze it.

As noted above, milk frozen during a thrush outbreak may not be a problem for a healthy baby.

If you wish to further minimize any risk of using milk frozen during a thrush outbreak:

- One option is to dilute the defrosted "thrush" milk by mixing it with milk expressed at a different time.
- Another option is to heat treat the defrosted "thrush" milk to kill most or all of the candida present.
 - ♦ Per Amir and Hoover (2002, p. 3) and Odds (1988, p 14), candida usually dies within minutes at a temperature of 122°F (50°C).
 - ♦ Mohrbacher and Stock (2003, p. 483) suggest that the milk be heated to boiling (212°F/100°C).
 - ♦ Others suggest scalding the milk, which brings it to a temperature right below boiling. How to scald milk: heat milk in a saucepan over medium-low heat, stirring occasionally, until the milk begins to steam and small bubbles begin to form around the edge of the pan; remove from heat.
 - ♦ These high temperatures will kill most of the antibodies in the milk, but this heat treated milk is still much more nutritious than infant formula.

For more information and references, see www.kellymom.com/bf/concerns/thrush/

I have thrush. Can I give baby my expressed milk?

Revised 3/13/05

Copyright © 2005 Kelly Bonyata, BS, IBCLC
www.kellymom.com