Nashville General gets new tool to help NICU preemies

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(Photo: Andrew Nelles / The Tennessean)

STORY HIGHLIGHTS

- There are two depots in Nashville and Memphis for women who want to donate excess milk.
- To find out how to donate go to www.milkbanktn.org.
- . Mothers' Milk Bank of Tennessee wants to build a processing center to pasteurize milk in-state.

Premature babies in neonatal intensive care units are closer to receiving potentially lifesaving donated breast milk from Tennessee moms under a new non-profit milk bank.

Breast milk, while important for all babies, is particularly vital for those prematurely born, said Dr. Susan Campbell, medical director of the neonatal intensive care unit at Nashville General Hospital at Meharry, who is leading the milk bank initiative.

In particular, breast milk helps protect premature babies from necrotizing enterocolitis, or NEC, an overgrowth of unhealthy bacteria that can damage a baby's intestines and be fatal. Breast milk helps protect against the disease but does not guarantee a baby won't get it.

"If I never saw (NEC) ever again, I would be happy," said Dr. William Walsh, medical director of the neonatal intensive care unit at Monroe Carell Jr. Children's Hospital at Vanderbilt, who called it "heartbreaking" when a baby dies from it.

Mothers' Milk Bank of Tennessee opened two donation depots, or repositories for the frozen donated milk, in the last month in Nashville at Nashville General and Regional One in Memphis for women who have excess breast milk and want to donate. Campbell is talking with people about putting a depot in East Tennessee.

The milk is for use by hospitals and is not for sale. While some women give or sell milk to other moms, accredited milk banks get the milk to the babies in NICUs who need it.

Hospitals can get formula for free from the manufacturers, and not all hospitals use breast milk for premature babies, said Campbell, adding there is an effort to get breast milk into all NICUs.

The Monroe Carell Jr. Children's Hospital at Vanderbilt gets breast milk from North Carolina for babies born at 32 weeks gestation or younger, said Dr. William Walsh, medical director of the neonatal intensive care unit. The baby stays on it until 34 weeks, said Walsh, who estimates Vanderbilt uses thousands of ounces of breast milk a year.

"It costs the hospital a fortune, but it's so much better than having a baby with an infection. It's the right thing to do," said Walsh.

Hospitals that use breast milk in NICUs get it shipped in from other states — a process that can take 24 hours and require it being shipped via FedEx, said Campbell.

Mothers' Milk Bank of Tennessee, which gained its 501c3 status in August, won't be entirely functional until there's a pasteurization center that can culture and pasteurize the milk. Milk donated in Tennessee is being shipped to a milk bank in Austin, Texas, and then shipped back.

Having depots and a processing center in the area will help "decrease the time to access donor milk for critically ill babies," said Dr. Kendall Graham, a neonatal specialist at Saint Thomas Health who hopes it will also lead to more local donations.

Campbell wants the future pasteurization center to be near a state lab that can test cultures in Metro Center in Nashville. But plans are on hold until the group raises enough money build the facility. A milk bank that's getting started in Pittsburgh raised about \$800,000 in a year, so Campbell is hopeful that the processing facility isn't too far off.

"We'll open as soon as we can get a million dollars," Campbell said, laughing. "That's the only limiting step."

The facility will provide milk to hospitals in Tennessee and in other states.



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Pouches of milk are stored at the Nashville General Hospital milk depot, Wednesday, April 13, 2016, in Nashville, Tenn. (Photo: Andrew Nelles / The Tennessean)

The Mothers' Milk Bank of Tennessee pays for the blood screening process, which looks for infectious diseases, and ensures both woman and baby are healthy in addition to covering any shipping costs associated with donations. Milk can be frozen for up to a year, at the right temperature. Expiration is determined by when it was pumped.

There were 4 million ounces donated in the U.S. last year, according to the Human Milk Banking Association of North America. Most centers when they open expect to process 100,000 ounces in the first year. The Mothers' Milk Bank of Tennessee received 2,000 ounces from three women in its first week.

Hollie Whinham, the mom of an 11-week-old named Ashlynn, has brought in a pair of large deposits — totaling over 400 ounces — so far. Whinham said she produced "a ton of milk" from her other pregnancies and wanted to help other babies once she learned she could donate.



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Teresa McMahon, RN, left, fills out paperwork after donor Hollie Whinham dropped off a milk donation at the Nashville General Hospital milk depot, Wednesday, April 13, 2016, in Nashville, Tenn. (Photo: Andrew Nelles / The Tennessean)

"Just the thought of it going to help these little babies get better and survive just warmed my heart," said Whinham, who has a friend who is starting the screening process.

Campbell is passionate about Mothers' Milk Bank of Tennessee because it benefits some of the most vulnerable babies in a state that is battling a high infant mortality. The state had 564 infant deaths in 2014, or 6.9 deaths per 1,000 live births, according to the Centers for Disease Control and Prevention, ranking it in the top 15 for infant mortality.

There are many underlying causes behind the mortality rate, most commonly unsafe sleep habits, but Campbell hopes it will help a "few more babies survive."

Women who donate are asked to give at least 100 ounces of milk, which can feed many premature babies for several days. Milk banks make exceptions for women who have lost a baby and want to donate the milk after going through a screening process.

"Even if she only had a little syringe full of milk we would take it to honor that baby," said Campbell.

Milk has been donated for centuries — dating back to wet nurses who would step in for moms who couldn't or did not want to breast feed. Milk banks were more common in the first half of the 20th century but began to wane with the rise in the popularity of formula and concerns over HIV.

Now, as more studies underscore the importance of human milk in a baby's early days, they are popping up again, Campbell said. There are two dozen banks accredited in the U.S. and Canada through the Human Milk Banking Association of North America with at least six, including Tennessee's, in development.

A baby who weighs about 3 pounds may only need a few milliliters to start, said Campbell. One hundred milliliters is about 3.3 ounces so a donation of 100 ounces could feed many premature babies.

"There are mamas out there that have freezers full of milk and we don't want them to keep buying new freezers," said Campbell.

To find out how to donate go to www.milkbanktn.org.

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