

Pasteurized Donor Human Milk

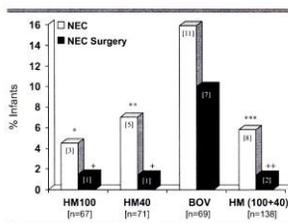
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Some Differences between fresh milk, PDHM, and

	Fresh breast milk	Pasteurized Donor Human Milk	Formula
Live cells (neutrophils, macrophages, etc)	Present	None	None
IgA	Present	67-100% of amount in fresh milk	None
IgG	Present	None	None
IgM	Present	66-70% of amount in fresh milk	None
Free fatty acids	Present	100%	Some formulas have added them
Lactoferrin	Present	27-43% of amount in fresh milk	None
Lipase	Present	None	None
Monoglycerides	Present	100%	None

Impact of Supplementation on the development of NEC

An Exclusively Human Milk-Based Diet Is Associated with a Lower Rate of Necrotizing Enterocolitis than a Diet of Human Milk and Bovine Milk-Based Products
 Sullivan, Schanler, et al. *J Peds*; 2010;156:562-7



HMBANA Milk Donor Processing

- ▶ Mother screened
 - ▶ Phone interview
 - ▶ Extensive written screen
 - ▶ Maternal consent
 - ▶ Consent of OB and Peds physicians
 - ▶ Laboratory testing
 - ▶ HIV 1 & 2
 - ▶ HTLV 1 & 2
 - ▶ HBsAg
 - ▶ Hep C
 - ▶ VDRL or RPR (syphilis)
 - ▶ PPD (as appropriate to population)
- ▶ Given donor #
 - ▶ no milk accepted until all screening complete
- ▶ Donates milk - frozen

Processing of donated human milk

Milk from a donor mother is carefully transferred from milk storage containers to glass flasks.



Each Pool (which usually includes milk from 3 to 5 donors) is thoroughly mixed to ensure an even distribution of milk components.



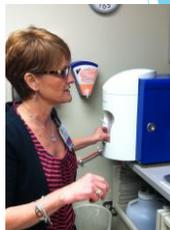
Bacteriologic testing



- ▶ Each pool of milk has a sample taken for bacteriologic screening using sterile technique
- ▶ Only milk from pools with less than 10^4 CFU/ml of normal skin flora are accepted

Nutritional Analysis

- ▶ Each pool of milk is also analyzed for nutritional content
 - ▶ Calories per ounce
 - ▶ Protein
 - ▶ Fat
- Some milk banks also pool preterm milk separately from term milk



Pasteurization

Pooled milk is poured into clean 2 or 4 ounce containers



Aliquots of milk are completely submerged in a water bath preheated to at least 62.5°C and maintained between 62.5°C - 63.5°C for 30 minutes. This is known as Holder Pasteurization.



After Pasteurization:

Following heat processing, the milk is rapidly cooled to 10°C within -20 minutes.

A random sample from each batch is cultured for bacteria count.

Milk is properly labeled and frozen for storage



JCAHO Perinatal Core Measures

- Elective delivery
- Cesarean section
- Antenatal steroids
- Health care-associated bloodstream infections in newborns
- Exclusive breast milk feeding

Exclusive breastfeeding is defined as “a newborn receiving **only breastmilk** and no other liquids and solids except for drops or syrups consisting of vitamins, minerals, or medicines.”

Scripting for Donor Milk

“Your doctor has recommended supplementing your baby. Your breastmilk is the best food for your baby, but the second best would be Pasteurized Donor Human Milk. It will still have many of the important factors that help fight infection, and it is nutritionally perfect for your baby.”



“I want to reassure you that donor milk is very safe. The donors are all screened rigorously, the milk is pasteurized, and it is cultured before and after pasteurization to ensure that there is not any bacterial contamination.”

Cost of Pasteurized Donor Human Milk



- ▶ Term milk \$4.50/ounce
- ▶ High calorie milk \$5.50/ounce
- ▶ Preterm milk \$6.50/ounce

