

HUMAN MILK BANKS

FREQUENTLY ASKED QUESTIONS

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WHAT IS A MILK BANK?

A donor milk bank is “a service established for the purpose of collecting, screening, processing and distributing donated human milk to meet the specific medical needs of individuals for whom it is prescribed.”¹

Donor milk banks receive milk from lactating mothers who have been carefully screened, similar to the way blood banks screen donors. Volunteer donors pump extra milk into sterile containers and freeze it. The raw donor milk is transported to the milk bank frozen. The milk from several donors is pooled after thawing, then heat-treated to kill bacteria and viruses and frozen. It is only dispensed after a sample is cultured and shows no bacteria growth. Milk is shipped frozen by overnight express to hospitals and to individual recipients at home.¹



UNICEF & WHO's Ranking of Best Forms of Infant Nutrition & Immune Factors

1. *Mother's milk at breast.*
2. *Mother's expressed (pumped) milk via cup, spoon, etc.*
3. *Pasteurized milk from another mother (e.g., milk bank).*
4. *Artificial Infant Supplement or formula.*

Source: United Nations Children's Fund: Facts for Life, 2002.

Who needs human donor milk?

Common reasons for prescribing donor milk include: prematurity, allergies, feeding/formula intolerance, immunologic deficiencies, post-operative nutrition, infectious diseases, and metabolic disorders (usually genetic or present from birth)¹. Premature babies often receive human donor milk, but adults with medical conditions or complications have been reported to benefit from human milk (e.g., nausea and weight loss associated with chemotherapy treatment for cancer)².

In cases where a mother cannot provide her own milk, human banked milk may be a “suitable alternative.”³ Donor milk offers many of the benefits of human milk, including: nutrition, easy digestibility, immunologic protection against many harmful organisms and diseases. Human milk contains growth factors that can protect immature tissue, promote maturation (especially in the gastrointestinal tract), and promote healing of tissue damaged by infection¹.

Every drop of milk is valuable and small or sick babies benefit from even the smallest quantities of human milk. Premature babies will often start with less than 20 mL per day. One ounce of milk will feed a tiny premature baby for 1 ½ days⁴.

I don't have enough milk. Where do I get milk?

Often, low milk supply is a misperception, but if you feel that you don't make enough milk for your child, there are simple non-medicinal techniques to increase the amount of milk you make, such as increasing the frequency of nursing sessions or having more skin-to-skin contact with your baby. A Leader with La Leche League can help you understand how to improve breastfeeding and refer you to a lactation consultant if necessary.

If you still aren't able to produce enough milk, a health care provider or hospital can order human milk by contacting a milk bank and issuing a purchase order, even if mom or baby is not hospitalized. Donor human milk can usually be delivered within 24 hours. Priority may be given to the neediest babies.



The Human Milk Banking Association of North America (HMBANA) is a group of health care providers that promotes, protects, and supports donor milk banking. HMBANA is the only professional membership association for milk banks in Canada, Mexico and the United States and sets the standards and guidelines for donor milk banking for those areas.¹ All HMBANA milk banks are non-profit.
<http://www.hmbana.org>

How much does it cost?

The price of human donor milk varies from milk bank to milk bank. The processing fees of human milk from HMBANA milk banks ranges from \$2.50 to \$5.00 per ounce plus shipping (on dry ice). Non-member (for profit) milk banks charge two to ten times more to reflect the processing and administrative costs.

Will health insurance or Medicaid pay for it?

Despite scientific evidence indicating that donor human milk reduces the risk of life-threatening illnesses and is associated with shortened hospital stays among premature babies⁶, insurance reimbursement for donor milk is not a standard covered item on any known insurance policy or plan. If the recipient baby is hospitalized and/or has a serious medical condition, the insurance company will carefully review the baby's history and may pay for donor milk. If the milk is to be given to a healthy baby for its protective (i.e., not nutritional) effects, it will not be covered by insurance. If a medical need is established, the Mothers' Milk Bank in Denver will get milk to the baby, whether or not payment is ever received by either insurance or the baby's family.

Donor Questions

Who can donate?

Volunteer donors must be in good health; a non-smoker, taking no medications or herbs (including megavitamins) during the time the milk is pumped, not consume alcohol, and have a baby less than 6 months old when donations begin. Many milk banks ask for minimum donations (e.g., Mothers' Milk Bank of Colorado requests a minimum 150 oz. from each donor^{1,5}).

How do I donate?

If eligibility criteria are met, prospective volunteer donors give small blood samples to test for diseases. The prospective volunteer donor's physician and her child's pediatrician certify the health of the donor mother, and ensure the donor mother's child is unlikely to be harmed by donation of his mother's milk. Volunteer donors sign an informed consent form with their application.

Volunteer donors do not need to pay to donate, and all costs for lab tests and collection equipment are paid for by milk banks. Volunteer donors pump milk into sterile containers, either at home, or at a collection station (or milk depot). If collecting at home, the milk is frozen, then packed in dry ice and shipped overnight to the milk bank. At a collection station, volunteer donors can pump, or drop off frozen milk.

I'm giving my baby up for adoption. Can I donate?

If you are planning to give your baby up for adoption, or are a surrogate mother, you may donate your milk to a milk bank if you meet certain requirements. Some biological mothers have arrangements with adoptive families to provide milk for their biological babies once they are placed in their adoptive homes.



Do milk banks provide a pump?

While most prospective donor mothers already have a pump and are collecting their milk, some will need pumps. All milk banks provide volunteer donors with all equipment needed for comfortable, safe collection of donor milk. The Mothers' Milk Bank in Denver can loan hand pumps to those donors.

What are the risks to my baby if I donate milk?

To donate, you must produce more than enough milk for your baby to thrive. However, the risks to your own baby are not yet fully known. For example, research shows that nearly half of the volume of human milk is antibodies: factors that help baby develop his immune system. It appears that regardless of the amount of milk a mother makes, there is about the same amount of antibodies produced each day (depending on the age of the child, whether mom or baby are fighting an infection, etc.). Therefore if a portion of milk is donated, a portion of that day's antibodies is given to the milk bank. For moms who have an overabundant milk supply, donating extra milk can be a way for it to go to good use as the baby would not consume the extra milk anyway.

I have a freezer full of milk. Can I donate it?

Previously collected, frozen milk is acceptable as long as you were not sick or taking medications when it was pumped. Milk banks can provide you with containers to put your milk in from then on⁵.

Can I sell my milk?

Donors are not compensated for the milk they provide to milk banks. Although it is not illegal to sell your milk, it is not advisable because of the concern for safety of the recipient and potential liability. Donating through an HMBANA member milk bank assures that your milk is safe for consumption and that it will go to babies that need it the most.

Health & Safety

How do I know banked milk is safe?

For non-profit HMBANA member milk banks, all milk is pasteurized at a minimum of 56° C for 30 minutes. Both cytomegalovirus and HIV viruses are killed by this process, while preserving the unique immune properties. A post-pasteurization bacterial culture is performed and must comply with HMBANA standards of no growth.

Since their inception in 1943, there have been no instances of disease transmission from any milk bank in the US and Canada.

Who regulates milk banks?

HMBANA member milk banks have established "Guidelines for the Establishment and Operation of a Donor Human Milk Bank," which is reviewed annually in accordance with the Food and Drug Administration, Center for Disease Control and American Academy of Pediatrics. In addition, the HMBANA member milk banks comply with the United States Public Health Service "Guidelines for Prevention of Transmission of HIV Through Transplantation of Human Tissue and Organs".

Prolacta Bioscience is not a member of HMBANA and does not adhere to HMBANA's safety or ethical guidelines.

Wouldn't it be better to have my friend nurse my baby?

While some immunologic factors are compromised during the pasteurization processing of human donor milk, the risks of potential disease transmission from a "wet nurse" outweigh the benefits from "raw" human milk. Donor milk banks require regular testing of donors for diseases and health behaviors which must be verified by the volunteer donors' physicians. If your friend wants to help, encourage them to become a volunteer milk donor.

Making Choices

I've heard of milk banks in Utah, California & Colorado. How are they different?

Milk banks test, process, and distribute human donor milk. There are 11 HMBANA accredited milk banks in the US and Canada, including Denver, Colorado and San Jose, California. Prolacta Bioscience's processing center is located in Monrovia, California (near Los Angeles).

Collection stations (or milk depots) are places where volunteer donors' milk is collected and prepared for shipping to milk banks that process and test human milk. Milk can also be collected, frozen and shipped with dry ice from volunteer donors' homes. The Birth and Family Place in Holladay, Utah is a collection station for Prolacta Bioscience in California. Utah Valley Medical Center in Provo, Utah is a collection station for the HMBANA accredited Mothers' Milk Bank in Colorado.

What is human milk fortifier? How long should it be used?

Human milk fortifier is a cow's milk based powder that can be added to human milk to increase the amount of protein, energy (kcalories), and some vitamins and minerals. Healthy babies born at term do not need human milk fortifier as human milk provides them with all the nutrients they need for good health and growth. Doctors may prescribe human milk fortifier to premature or low birth weight babies to increase weight gain and to provide additional nutrients until they are about 2 kg in weight (4 lbs 7 oz) and 35 weeks gestational age⁷.

Human milk is not designed to ensure the survival of very premature babies. These babies need more than the nutritional content of his mothers' milk. In addition, their stomach is very small. Therefore, fortifiers are added to human milk to increase its nutritional content, in other words to increase the "density" of nutrition. Fortifiers are derived from either cow's milk or from soy beans and requires technological equipment and personnel to be produced. However, fortifiers are considered a "bridge" or short-term treatment—something to help when premature babies need it before they "graduate" to a diet of purely human milk.

A recent "lacto-engineering" case study suggests that it is possible to fortify human milk with human milk components. The fat of the mother's midmilk and hind-milk was added to a sample of her milk and given to her premature baby who was growing poorly with commercial fortifiers. With this simple addition, the baby's weight and growth improved dramatically⁸.

Who profits from a milk bank?

Non-profit HMBANA member milk banks charge a processing fee to hospitals to cover the expense of collecting, pasteurizing and dispensing the milk¹. Milk banks that are not regulated by HMBANA operate as for-profit companies. Company owners and shareholders profit from the processing and sale of donated human milk.

Traditionally, milk and blood have been donated, that is, the person who donates milk and blood is not compensated and no one benefits financially in the tissue transaction from the donor to the recipient. These non-profit organizations are regulated by the Human Milk Banking Association of North America (HMBANA). The cost of human milk obtained from HMBANA milk banks reflect the cost of processing the milk (e.g. testing, screening, transport).

Recent months have seen the birth of a for-profit milk bank, that is, the donor still receives no financial compensation for her milk, but someone else does in the process of making a business with human milk banking. Examples are people who sell the milk as it changes hands on its way to the milk bank to be processed, and investors in the company.

REFERENCES

1 Human Milk Banking Association of North America:

<http://www.hmbana.org/index.php?mode=faq>

2 The National Women's Health Information Center, U.S. Department of Health and Human Services Office on Women's Health:

<http://www.4woman.gov/breastfeeding/index.cfm?page=359>

3 American Academy of Pediatrics: Work Group on Breastfeeding. (2005 revision of 1997 policy statement). Breastfeeding and the use of human milk. *Pediatrics*, 100(6), 1035-1039.

4 UKAMB: <http://www.ukamb.org/donor.htm>

5 Mothers' Milk Bank:

<http://www.bestfedbabies.org/mDonate.htm>

6 Schanler R.J., Lau C., Hurst N.M., Smith E.O. (2005). Randomized Trial of Donor Human Milk Versus Preterm Formula as Substitutes for Mothers' Own Milk in the Feeding of Extremely Premature Infants. *Pediatrics*, 116(2), 400-406.

7 Section of Neonatology, Baylor College of Medicine:

<http://www.neonatalnews.net/March-01/Breaking.htm>

8 Jones, E. & King, C., Eds. (2005). *Feeding and Nutrition in the Preterm Infant*. Elsevier, Churchill, Livingstone.

HMBANA accredited milk banks (non-profit)

CALIFORNIA

Mothers' Milk Bank
751 South Bascom Ave
San Jose, CA 95128
Phone (408) 998-4550
mothersmilkbank@hhs.co.santa-clara.ca.us
www.milkbanksj.org

COLORADO

Mothers' Milk Bank at
Presbyterian St. Luke's Medical Center
1719 E. 19th Ave
Denver, CO 80218
Toll-free 1 (877) 458-5503
mmilkbank@health1.org
www.bestfedbabies.org

DELAWARE

Mothers' Milk Bank
Christiana Hospital
4755 Ogletown-Stanton Road
Newark, DE 19718
Phone (302) 733-2340
dmore@christianacare.org

INDIANA

Indiana Mothers' Milk Bank, Inc.
Methodist Medical Plaza II
6820 Parkdale Place, Suite 109
Indianapolis, IN 4654
Phone (317) 329-7146
inmothersmilkbank@clarion.org
<http://www.immilkbank.org/>

IOWA

Mother's Milk Bank of Iowa
Division of Nutrition
Department of Pediatrics
Children's Hospital of Iowa
200 Hawkins Drive
Iowa City, IA 52242
Phone: (319) 356-2651
Jean-druilis@uiowa.edu
Janice-jeter@uiowa.edu
www.uihealthcare.com/depts/childrenshospitalofiowa/milkbank/

MICHIGAN

Bronson Mothers' Milk Bank
601 John St. Box 306
Kalamazoo, MI 49007
Phone (269) 341-8849
Duffc@bronsonhg.org

NORTH CAROLINA

WakeMed Mothers' Milk Bank and Lactation Center
3000 New Bern Ave
Raleigh, NC 27610
Phone (919) 350-8599
<http://www.wakemed.com/body.cfm?id=135>

OHIO

Mothers' Milk Bank of Ohio
Grant Medical Center @
Victorian Village Health Center
1087 Dennison Avenue
Columbus, OH 43201
Phone (614) 544-5906
gmorrow@ohiohealth.com

TEXAS

Mothers' Milk Bank at Austin
900 E. 30th St. Suite 214
Austin, TX 78705
Phone (512) 494-0800
Toll-free 1 (877) 813-MILK (6455)
info@mmbaustin.org
www.mmbaustin.org

Mothers' Milk Bank of North Texas
1300 W. Lancaster Suite 108
Ft. Worth, TX 76102
Phone (817) 810-0071
Toll-free 1 (866) 810-0071
mmbnt@hotmail.com
<http://www.mmbnt.org/>

Canada

BRITISH COLUMBIA
BC Women's Milk Bank
C & W Lactation Services
4500 Oak Street, IU 30
Vancouver, BC V6M 3X4
Phone (604) 875-2282
fjones@cwbc.ca

Self-regulated milk banks (for profit)

National Milk Bank
Toll-free 1 (866) 522-MILK
info@nationalmilkbank.org

Prolacta Bioscience
605 E Huntington Dr.
Monrovia, CA 91016
Toll-free 1 (888) PROLACTA
info@prolacta.com
www.prolacta.com



Getting help with breastfeeding

Utah WIC

To find a clinic or peer counselor near you, contact:

(877) WIC KIDS

<http://health.utah.gov/wic/index.html>

La Leche League

For mother-to-mother support:

Utah Referral Line

801-264-LOVE

For breastfeeding information:

<http://www.lalecheleague.org/>

For local meeting schedules:

<http://www.llusa.org/UT/Utah.html>

International Lactation Consultants Association

To find an IBCLC near you:

<http://gotwww.net/ilca/>

The Utah Breastfeeding Coalition supports, protects, & celebrates breastfeeding, because breastfeeding touches us all. This document was prepared and reviewed by the Utah Breastfeeding Coalition's Milk Bank Task Force: Nicole Bernshaw, IBCLC, MSc; Kelly Davis Garrett, PhD; Lisa Harper, RD; Susan Johnson, MFA, IBCLC; and Elizabeth Smith, MPH, ICCE, HBCE;. We appreciate the valuable input from ad hoc reviewers: Laraine Lockhart Borman, IBCLC; Robert Christensen, MD; and Susan Rugg, RN. Photos courtesy of Carolyn Westcott, UKAMB.

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