Human Milk Processing and the Effects on Nutritional Components

Three recent articles looked at the differences in some essential components of human milk by comparing varying processing methods.

Today, donor human milk has become the standard of care for preemies and others when mom’s own milk is not available. While breastfeeding is ideal and pumped milk is next best, it is universally recognized that human milk safety is essential, particularly as it applies to bacteria and viruses.

For this reason, milk banks have been pasteurizing human milk for decades. There has been much research on the standard processing method, Holder pasteurization, which brings milk to 62.5 degrees centigrade for 30 minutes. It is well known as the best method for preserving essential nutrients while killing pathogens.

These three studies examined the Holder pasteurization compared to a method often used to process food products called, retort processing. The latter method is now being used by for-profit companies and uses an extremely high heat and pressure resulting in extremely processed milk. This milk is being given to babies in some hospitals and it has raised concerns around the retort process.

Holder pasteurization, currently the method used by Mothers' Milk Bank and its HMBANA sister banks, showed significant retention of the bioactive factors IgA and lysozyme, which have been shown to be protective against Necrotizing Enterocolitis (NEC) when compared to the retort processed milk. Interestingly, none of the research published to date has shown retort processed milk is protective against NEC.

The second study mentioned, examined the oligosaccharides found in human milk, and discovered the retort process destructive. Furthermore, a third study looking at thiamine and lysine in the milk found these essential components are severely reduced by retort processing.

Holder pasteurization continues to be the proven method for milk processing.

Sources:
Lactation Journal Club is back this February!

Colorado's Lactation Journal Club is gearing up for 2019! Thanks to everyone who attended our November meeting. Stay tuned to our club's Facebook page for next year's dates and topics!

Prescribe Donor Milk

Donor human milk is the first choice for all babies anytime mom's own milk is unavailable and is essential for any baby with a weakened immune system or special dietary needs.

To learn more about prescribing donor human milk from Mothers' Milk Bank to infants in your care, please visit our website and watch a short video.

Potential Milk Donors

Human milk is a gift that lasts a lifetime.

Nationally, we are seeing a growing demand for human milk for babies. We rely on the generosity of our donors and are thankful for the healthcare providers who encourage patients with excess milk to become milk donors to meet this demand. If you have a patient with an established milk supply and more milk than her healthy baby needs, please have her contact us. Those interested in becoming donors should visit our website for more information.

About Mothers' Milk Bank

A nonprofit program of Rocky Mountain Children's Health Foundation, Mothers' Milk Bank (MMB) collects, processes, tests, analyzes and provides donor human milk to babies across the country. Babies who receive the milk may be premature or have severe illnesses and need human milk to thrive.

MMB consistently provides more milk to NICUs than any other nonprofit milk bank in North America and adheres to the strict guidelines of the Human Milk Banking Association of North America.

Dedicated to babies. Dedicated to quality. Dedicated to safety.
And happy holidays from your Mothers’ Milk Bank & Rocky Mountain Children’s Health Foundation team!

A program of

Rocky Mountain Children’s Health FOUNDATION

Mothers’ Milk Bank | 303.869.1888 | milkbankcolorado.org

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