

Why I Pasteurize

by Maureen Moore

The subject of pasteurization is one we should readdress from time to time. Because of its importance to our industry... it seems time for another reminder...

This review will cover diseases transmitted, or possibly transmitted, to humans in raw goats' milk. All of this material was gleaned from reputable, traditional veterinary medical sources including: *Goat Health Handbook*, by Thomas R. Theddford, DVM; *Goat Medicine*, Smith and Sherman, DVMs' and *The Merck Veterinary Manual*.



The table here is not complete, but I believe it is accurate as far as it goes. Some of the diseases listed are probably not real threats to us in the US at this time. Some are passed in the milk itself; others through external contamination of the milk and some through both means. These diseases are caused by organisms we cannot see. Current thinking in the dairy industry is that washing udders and teats before milking doesn't remove the infection organisms—it just smears them around the makes them more mobile and able to get into the milk. Pasteurizing is the *only* way to eliminate these contaminants. Filtering basically removes things like hair, particles of dirt, manure, little blood clots, shedded tissue or lumps of milk. It *does not* remove bacteria.

We all have a right to our own opinions and we all will do as we choose on our own farms and when we are representing only ourselves. However, please be aware that it is still illegal to sell, trade, or give raw goats' milk in the State of North Carolina. It is also illegal to sell trade, or give pasteurized goats' milk in NC unless you are a certified producer whose process and products can be "Certified" to be safe for human consumption.



Diseases	Other Names	Symptoms and Description
Anthrax	Bacillus anthracis	May be contracted when handling infected or dead animals and their fluids; eating their meat; or breathing spores from their hides. This is a very serious disease but to my knowledge, is not found in this area.
Brucellosis	Bangs	Occurrence is world-wide and is transmitted by direct contact with excretions or secretions, including milk, or infected animals. Symptoms in humans are flu-like that come and go on an approximately 2-week schedule.
Listeriosis	Circling Disease	Symptoms may range from a mild irritation on the hands and arms to severe blood poisoning. Encephalitis may develop. Abortion is a possibility in humans.
Mastitis		Some of the bacteria that causes mastitis in goats can cause sickness in humans. "Staph" is the most common cause of mastitis in the dairy industry and we all know about staph infections! Mastitis can be clinical or sub-clinical. Sub-clinical can only be definitely diagnosed by lab test.
Melioidosis	Human Glanders	This is most common in Southeast Asia but is found in most other areas of the world. I have not heard of it in this area. Transmission is unlikely but possible.
Salmonella		The main symptom is diarrhea. This disease is probably not passed in the milk but through contamination of the milk by feces.
Caprine Arthritis and Encephalitis	CAE	I have read of no evidence that the CAE virus will infect man. However, it is recommended that goat milk for human consumption be pasteurized since it contains significant numbers of the virus.
Rift Valley Fever	RVF	This is seen primarily on the African Asia and Europe. Primarily affects animals but also can infect humans. Infection results from direct contact with the blood or organs and uncooked milk of infected animals. Symptoms include: flu-like fever, muscle pain and headache.
Scrapie	TSEs Kuru	There is no known connection at this time to two similar human diseases: Creutzfeldt-Jakob disease and Kuru. However, most countries recommend that meat and products from infected animals not be used for human consumption. It does not appear to be transmissible to humans.
Toxoplasmosis	Toxoplasma gondii	This is transmitted to goats through the droppings of infected cats. It is a cause of abortion, mummification and stillbirth in goats. It can be passed in the goats' milk to humans. Pregnant women are especially warned to be careful of infection.
Tuberculosis	TB Consumption	We are in a TB-and Brucellosis-Free state but remember that goats are being shipped and imported from everywhere! Humans and animals alike can contract TB by drinking unpasteurized milk if the goat is infected.
E. Coli Infection	Coliform	This is transmitted through milk contaminated with feces or fecal residue.

The book, *Goat Medicine*, also includes the following diseases or those potentially able to transmit to humans by raw milk. They have been isolated from goat's milk.

- Coseous Lymphadenitis _____ abscesses
- Cryptococcosis _____ from bird droppings
- Leptospirosis _____ from wild rodents
- Louping ill _____ mainly from sheep in the British Isles
- Q Fever _____ in humans causing flu-like symptoms, Pneumonia and heart disease

