A Campaign for Real Milk

FULL-FAT
PASTURE-FED
UNPROCESSED

The Safety and Health Benefits of Real Milk

A Campaign for Real Milk Is a Project of
The Weston A. Price Foundation
westonaprice.org

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Milk is completely different from meat in that it expresses in the weakest possible form the animalistic process brought forth by the astral body of the animal.

Milk is only partly an animal product and the animal or human astral processes do not participate in its production. For this reason milk is one of the most perfect foods.

Even from an external standpoint it can be seen that milk contains everything a person requires for his organism.

Weak as well as strong organisms can gain support from milk. If a person were to live exclusively on milk for a time, then not only would his regular forces be awakened but it would also beyond this. He would receive from it an influx of forces giving him additional strength.
“Research has shown that there is no significant difference in the nutritional value of pasteurized and unpasteurized milk.”

Common claim of public health officials

“Raw milk is inherently dangerous and should not be consumed by anyone under any circumstances at any time.”

John F. Sheehan, Director,
US Food and Drug Administration,
Division of Dairy and Egg Safety
FDA Consumer, Sept/Oct 2004

“Pasteurization of milk is one of the most important public health initiatives in history.”

Common claim of public health officials
RAW MILK IS UNIQUELY SAFE

Consider the calf, born in the muck, which then suckles on its mother’s manure-covered teat.

How can that calf survive?

Because raw milk contains multiple, redundant systems of bioactive components that can reduce or eliminate populations of pathogenic bacteria.
BUILT-IN PROTECTIVE SYSTEMS IN RAW MILK

LACTOPEROXIDASE

HYDROGEN PEROXIDE: Uses small amounts of $\text{H}_2\text{O}_2$ and free radicals to seek out and destroy pathogens

WIDESPREAD: In all mammalian secretions—breast milk, tears, etc.

HIGHER IN ANIMAL MILK: Lactoperoxidase levels *10 times higher* in goat milk than in breast milk

ALTERNATIVE TO PASTEURIZATION: Other countries are looking into using lactoperoxidase instead of pasteurization to ensure safety of commercial milk

LACTOFERRIN

PLENTIFUL in raw milk; effectiveness reduced by pasteurization

STEALS IRON away from pathogens and carries it through the gut wall into the blood stream; stimulates the immune system

TB: In a study involving mice bred to be susceptible to tuberculosis, treatment with lactoferrin significantly reduced the burden of tuberculosis organisms.

CANDIDA: Mice injected with Candida albicans, another iron-loving organism, had increased survival time when treated with lactoferrin.

WEIGHT LOSS: Believed to cut visceral fat levels up to 40%

BENEFITS: Many other health benefits—is sold as a supplement!

LEUKOCYTES—Eat all foreign bacteria, yeast and molds (phagocytosis). Destroyed at 56C and by pumping milk. Produce H₂O₂ to activate the lacto-peroxidase system. Produce anaerobic CO₂ that blocks all aerobic microbes. Basis of immunity.

B-LYMPHOCYTES – Kill foreign bacteria; call in other parts of the immune system¹,²

MACROPHAGES – Engulf foreign proteins and bacteria²

NEUTROPHILS – Kill infected cells; mobilize other parts of the immune system¹

T-LYMPHOCYTES – Multiply if bad bacteria are present; produce immune-strengthening compounds¹

IMMUNOGLOBULINS (IGM, IGA, IGG1, IGG2)—Transfer of immunity from cow to calf/person in milk and especially colostrum; provides "passive immunization"²

ANTIBODIES—Bind to foreign microbes and prevent them from migrating outside the gut; initiate immune response.

BUILT-IN PROTECTIVE SYSTEMS IN RAW MILK:
FATS AND CARBOHYDRATES

POLYSACCHARIDES—Encourage the growth of good bacteria in the gut; protect the gut wall

OLIGOSACCHARIDES—Protect other components from being destroyed by stomach acids and enzymes; bind to bacteria and prevent them from attaching to the gut lining; other functions just being discovered.¹,²

MEDIUM-CHAIN FATTY ACIDS—Disrupt cell walls of bad bacteria; levels so high in goat milk that the test for the presence of antibiotics had to be changed; may reduce intestinal injury and protect the liver.³

PHOSPHOLIPIDS AND SPINGOLIPIDS—bind to intestinal cells, prevent absorption of pathogens and toxins.³ Spingolipids are important components in cell membranes, protect cells against toxins, support digestion and protect against cancer.

ENZYMES, E.G. COMPLEMENT AND LYSOZYME—Disrupt bacterial cell walls. Complement destroyed at 56°C; Lysozyme at 90°C.¹,²

HORMONES AND GROWTH FACTORS – Stimulate maturation of gut cells; prevent "leaky" gut.²

MUCINS – Adhere to bacteria and viruses, preventing those organisms from attaching to the mucosa and causing disease.¹,²

FIBRONECTIN – Increases anti-microbial activity of macrophages and helps to repair damaged tissues.¹

GLYCOMACROPEPTIDE – Inhibits bacterial/viral adhesion, suppresses gastric secretion, and promotes bifido-bacterial growth; supports immune system.³

BUILT-IN PROTECTIVE SYSTEMS IN RAW MILK:
OTHER BIOACTIVE COMPONENTS

BENEFICIAL BACTERIA – *Lactobacilli* and *bifidus* bacteria, crowd out bad bacteria, produce lactic acid that kills bad bacteria.

BIFIDUS FACTOR – Promotes growth of *Lactobacillus bifidus*, a helpful bacteria in baby’s gut, which helps crowd out dangerous germs¹,²

Ｂ₁₂ BINDING PROTEIN – Reduces Vitamin B₁₂ in the colon, which harmful bacteria need for growth¹

LACTOGLOBULINS - Carry vitamins A and D and possibly other nutrients.³

FIVEFOLD PROTECTIVE SYSTEM IN RAW MILK

1. Destroys pathogens in the milk.
2. Stimulates the immune system.
4. Prevents absorption of pathogens and toxins in the gut.
5. Ensures assimilation of all the nutrients.
## DESTRUCTION OF BUILT-IN SAFETY SYSTEMS BY PASTEURIZATION

<table>
<thead>
<tr>
<th>Component</th>
<th>Breast Milk</th>
<th>Raw Milk</th>
<th>Pasteurized Milk</th>
<th>UHT Milk</th>
<th>Infant Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-lymphocytes</td>
<td>Active</td>
<td>Active</td>
<td>Inactivated</td>
<td>Inactivated</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Macrophages</td>
<td>Active</td>
<td>Active</td>
<td>Inactivated</td>
<td>Inactivated</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Neutrophils</td>
<td>Active</td>
<td>Active</td>
<td>Inactivated</td>
<td>Inactivated</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Lymphocytes</td>
<td>Active</td>
<td>Active</td>
<td>Inactivated</td>
<td>Inactivated</td>
<td>Inactivated</td>
</tr>
<tr>
<td>IgA/IgG Antibodies</td>
<td>Active</td>
<td>Active</td>
<td>Inactivated</td>
<td>Inactivated</td>
<td>Inactivated</td>
</tr>
<tr>
<td>B&lt;sub&gt;12&lt;/sub&gt; Binding Protein</td>
<td>Active</td>
<td>Active</td>
<td>Inactivated</td>
<td>Inactivated</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Bifidus Factor</td>
<td>Active</td>
<td>Active</td>
<td>Inactivated</td>
<td>Inactivated</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Medium–Chain FAs</td>
<td>Active</td>
<td>Active</td>
<td>Reduced</td>
<td>Reduced</td>
<td>Reduced</td>
</tr>
<tr>
<td>Fibronectin</td>
<td>Active</td>
<td>Active</td>
<td>Inactivated</td>
<td>Inactivated</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Gamma–Interferon</td>
<td>Active</td>
<td>Active</td>
<td>Inactivated</td>
<td>Inactivated</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Lactoferrin</td>
<td>Active</td>
<td>Active</td>
<td>Reduced</td>
<td>Inactivated</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Lysozyme</td>
<td>Active</td>
<td>Active</td>
<td>Active</td>
<td>Inactivated</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Mucin A/Oligosaccharides</td>
<td>Active</td>
<td>Active</td>
<td>Reduced</td>
<td>Reduced</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Hormones/Growth Factors</td>
<td>Active</td>
<td>Active</td>
<td>Reduced</td>
<td>Reduced</td>
<td>Inactivated</td>
</tr>
</tbody>
</table>

Relative Number of Foodborne Illnesses Linked to Outbreaks Caused by Various Food Categories, Adjusted for Consumption 1999-2006

Fish & Shellfish: 29
Poultry: 15
Eggs: 13
Beef: 11
Pork: 8
Produce: 4
Dairy: 1

*Using the yearly average illnesses linked to Dairy outbreaks as the baseline*
FOODBORNE ILLNESS DEATHS, since 1999

• Cantaloupe: 29 (2011)
• Spinach: 5 (2007)
• Luncheon Meat: 12 (Canada, 2008); 2 (2011)
• Peanuts: 9 (2009)
• Eggs: 30 PER YEAR
• Oysters: 15 PER YEAR
• Pasteurized Cheese: 7 (Europe, 2009)
• Pasteurized Milk: 3 (2007)
• Pasteurized Mother’s Milk: 4 (2003)
• **Raw Milk: NONE***

FDA claims 2 deaths, one in a woman who never drank raw milk, and one anonymous complaint from our 2015 conference.
Outbreaks and Deaths from Pasteurized Milk and Pasteurized Milk Products – since 1966

- 60 Outbreaks
- 153,657 Illnesses
- 73 Deaths
Some Outbreaks Due to Pasteurized Milk

1976—1 outbreak *Y. enterocolitica* in 36 children, 16 of whom had appendectomies, due to pasteurized chocolate milk¹

1982—Over 17,000 cases *Y. enterocolitica* in several states from milk produced in Memphis, TN²

1983—1 outbreak, 49 cases, 14 deaths from *L. monocytogenes* in MA²

1984—3 outbreaks of antibiotic-resistant *S. typhimurium*, at plant in Melrose Park IL. The third wave had 16,284 confirmed cases; surveys indicated as many as 197,581 persons may have been affected²

1985—1,500+ cases, *Salmonella* culture confirmed, in Northern IL²

1993—1 outbreak, 2014 cases/142 confirmed *S. enteritidis* due to pasteurized in MN, SD, WI⁶

1995—Outbreak of *Yersinia enterocolitica* in 10 children, 3 hospitalized due to post-pasteurization contamination⁷

2000—1 outbreak, 98 cases/38 confirmed *S. typhimurium* in PA and NJ⁷

2005—1 outbreak, 200 cases *C. jejuni* in CO prison⁹

2006—1 outbreak, 1592 cases/52 confirmed *C. jejuni* infections in CA¹⁰

2007—1 outbreak, 3 deaths from pasteurized milk in Massachusetts

2009—1 outbreak, 7 deaths from pasteurized cheese in Europe

2012—1 outbreak, 4 deaths from pasteurized cheese in the US
Heat Resistant Pathogens in Pasteurized Milk

JOHNE’S BACTERIA (paratuberculosis bacteria) suspected of causing Crohn’s disease, now routinely found in pasteurized milk.

**B. CEREUS SPORES** survive pasteurization.

**BOTULISM SPORES** survive pasteurization.

**PROTOZOAN PARASITES** survive pasteurization.

RAW MILK CHALLENGE TESTS

- Large amounts of *Campylobacter* (an amount found in 20,000 grams manure) added to chilled raw milk (4°C):
  - Most strains showed a dramatic decline
    - Day 0 = 13,000,000/ml
    - Day 9 = less than 10/ml
  - The only stain that did not decline was a non-human strain.

*Applied and Environmental Microbiology*, 1982;44(5):1154-58
MILK SAFETY IN CALIFORNIA

Since 1999:

MILLIONS OF SERVINGS of Organic Pastures raw milk, with a superlative safety record.

MANY RECALLS of pasteurized milk products during the same period.
LISTERIA – THE BAD ACTOR!

• Around 300 deaths per year from listeria; thousands of illnesses.

• Most common sources
  • Luncheon Meats
  • Soft un-aged cheeses

• NO cases of listeria from raw milk
COMPARATIVE SAFETY OF RAW MILK
Based on statistics compiled by Dr. Ted Beals

- 42 government-reported illnesses from raw milk per year for the period 1999–2011. This number includes unconfirmed cases.
- According to a 2007 CDC survey, there are about 9 million raw milk drinkers in the US (3.04% of population). (This number is probably higher today.)
- Rate of illness from raw milk can be calculated at .00046%. The actual percentage is probably much lower.
- There are about 48,000,000 confirmed cases of foodborne infections per year in the US.
- Population about 300,000,000
- Rate of illness from all foods can be calculated at 16%
- Thus, you are at least 35,000 times more likely to contract illness from other foods than from raw milk. PLUS, drinking raw milk protects you against illness from other foods!

Source: http://www.realmilk.com/real-milk-pathogens.html
CLAIM: risk of illness almost 150 times greater per unit of nonpasteurized dairy product, compared to pasteurized.

DERIVED FROM 2012 Langer Study which found no statistical difference in the rate of illness (as opposed to the number of “outbreaks”) attributed to raw milk or products produced from raw milk compared to those produced from pasteurized milk.

TIME FRAME limited to 1993-2006. Excluded largest outbreak of pasteurized milk in 1985 in which at least 150,000 people were sickened.

NUMBER OF RAW MILK DRINKERS UNDERESTIMATED: Using 9 million people rather than 1 million makes pasteurized milk appear up to twice as dangerous as raw milk on a per-serving basis.
Techniques for Blaming Raw Milk

• When testing raw milk, use cultures to promote pathogen multiplication and highly sensitive milk testing techniques that find pathogens in extremely small numbers, levels that would not cause illness. (Any substance you test will show pathogens if the test is sensitive enough.)
• Use new rapid testing techniques developed for the food industry that err on the side of finding false positives.
• When there is an outbreak, use food questionnaires that leave out likely vectors of disease but ALWAYS include raw milk.
• When there is an outbreak, test raw milk products first, and test open containers in the home setting rather than from the shelf. If a person is infected and has handled a raw milk product, the product may test positive for the organism. Omit testing other foods or raw milk products on the shelf (not handled by the consumer) but report a positive lab result for the opened container of raw milk product.
• Omit subjects who got sick but did not drink raw milk.
• Ignore equally likely or more likely sources of infection, such as visit to a farm or petting zoo, tap water or other foods.
• Assume that statistical association constitutes proof. It is easy to create a statistical association with raw milk using the above techniques.
• Issue inflammatory press releases accusing raw milk, which are not retracted when the dairy is exonerated.
Solution to the “Milk Problem”

The “Milk Problem” was solved by:

- Outlawing inner city swill dairies
- Improved hygiene
- Improved water treatment and sewage systems
- Replacement of the horse with the car; cities no longer buried in manure
- The Certified Raw Milk movement
- Increased consumer access to refrigeration

**NOT** by milk pasteurization laws!
Decline of Infectious Disease Not Related to Mandatory Pasteurization

1948: First State Mandatory Pasteurization Laws
Raw Milk or Bad Water??

**Death Rate for Typhoid Fever**
United States, 1900-1960

- Chlorination Begun

1948: First State Mandatory Pasteurization Laws

SUMMARY OF RAW MILK SAFETY

- **SAFEST FOOD:** Raw Milk is safer than any other food.

- **BUILT-IN SAFETY MECHANISMS:** Raw milk is the ONLY food that has built in safety mechanisms.

- **40-YEAR-OLD SCIENCE:** Claims that raw milk is unsafe are based on 40-year-old science.

- **COURT OF LAW:** Claims that raw milk is unsafe would not hold up in a court of law.
ANCIENT: Since ancient times, an exclusive raw milk diet has been used to cure many diseases.

MAYO CLINIC: In the early 1900s, the "Milk Cure" was used at the Mayo Clinic to successfully treat cancer, weight loss, kidney disease, allergies, skin problems, urinary tract problems, prostate problems, chronic fatigue and many other chronic conditions.

ONLY WITH RAW MILK: The Milk Cure only works with raw milk; pasteurized milk does not have these curative powers.

Crewe, JR. Raw Milk Cures Many Diseases, www.realmilk.com
STUDY: 224 Children at the Boston Dispensary were fed either:

- Raw Certified Milk, or
- Grade A pasteurized milk, or
- Grade A pasteurized milk plus cod liver oil, or
- Raw Certified Milk plus cod liver oil and orange juice

CONCLUSION: “The use of certified milk [raw] without orange juice or cod liver oil gave a considerably greater percentage of weight development than either pasteurized milk alone or pasteurized milk with orange juice and cod liver oil. . . A larger use of certified milk in infant feeding should be encouraged by the medical profession.

Arch Ped 1926 JUN; 43:380
Raw Milk and Children - 1929

- COMPARISON of 2 groups of babies.
  Group I (122 babies) received raw milk
  Group II (112 babies) received pasteurized milk.

- WEIGHT GAIN was much better in group receiving raw milk

- RICKETS occurred more frequently in the group receiving pasteurized milk; cases of rickets in the raw milk group were milder.

- DIARRHEA
  24 cases with 9 deaths in raw milk group
  36 cases with 15 deaths in pasteurized milk group

- MORTALITY
  Group I Raw Milk 10%
  Group II Pasteurized Milk 16%

Arch Ped 1929; 46: 85
“Our results show definitely that some dietetic factors are destroyed when milk is sterilised, and to a definite but lesser degree when it is pasteurised, and that although fresh milk is capable of supporting sustained growth and reproduction in rats, heated milk is no longer capable of doing so.”

<table>
<thead>
<tr>
<th></th>
<th>WHOLE RAW MILK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth</td>
<td>Good growth; sleek coat; clear eyes; excellent dispositions; enjoyed being petted.</td>
</tr>
<tr>
<td></td>
<td><strong>WHOLE PASTEURIZED MILK</strong></td>
</tr>
<tr>
<td>Coat</td>
<td>Rough coat; slow growth; eyes lacked luster; anemia; loss of vitality and weight; very irritable, often showing a tendency to bite when handled.</td>
</tr>
</tbody>
</table>

Studies of Mattick and Golding - 1935

- Rats fed sterilized milk had hair loss; those fed raw milk did not.
- **Lowered reproductive capacity** in rats fed sterilized milk.
- “Two females which had received sterilized milk for about eight months showed remarkable improvement after receiving raw milk for about eleven weeks, and one gave birth to a litter when mated to a buck from the raw milk group. Previous to this, 15 matings had been attempted with does and bucks both reared on sterilized milk, and no signs of pregnancy were shown on any one of these occasions.”

British Orphanage Study - 1937

TWO GROUPS:
Group I: 750 boys got pasteurized milk for 5 years.
Group II: 750 boys got raw milk for 5 years.

RESULTS FOR TB:
Group I had 14 cases of TB
Group II had 1 case.

OTHER BENEFITS: “The child on raw milk is very fit. Chilblains are practically eliminated. The teeth are less likely to decay. The resistance to tuberculosis and other infections is raised.”

*Lancet, May 8, 1937:1142*
Randleigh Farm Rat Studies – 1935-1940

Raw vs. Pasteurized Milk at Randleigh Farm, 1935-1940

Above: Rat fed only raw milk. Good development, healthy fur.

Below: Rats fed only pasteurized milk. Poor development. Hairless areas (acrodynia) due to deficiency of vitamin B-6.
Bone Development

Randleigh Farm Study

PASTEURIZED-Milk-Fed Rat

Weighed 146 grams

Bones shorter and less dense

RAW-Milk-Fed Rat

Weighed 206 grams

Bones longer and more dense

One-to-One Exposure of Femur, Tibia and Fibula
<table>
<thead>
<tr>
<th><strong>WHOLE RAW MILK</strong></th>
<th>Excellent growth; no abnormalities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WHOLE PASTEURIZED MILK</strong></td>
<td>Poor growth; muscle stiffness; emaciation and weakness; death within one year. Autopsy revealed atrophied muscles streaked with calcification; tricalcium deposits under skin, in joints, heart and other organs.</td>
</tr>
</tbody>
</table>
Study on Calves

1941 STUDY carried out at the West of Scotland Agricultural College at Auchincruive.

TWO GROUPS, each of eight calves, were fed, one group on raw milk, the other on pasteurized milk for 90 days.

NO DEATHS IN RAW MILK GROUP: All the animals in the raw milk group finished the trial without mortality.

THREE DEATHS IN PASTEURIZED MILK GROUP: In the pasteurized milk group, two died before they were 30 days old, and a third died on the 92nd day; that is, two days after the experiment.

ILL HEALTH IN PASTEURIZED MILK GROUP: The remaining calves in the pasteurization group were in ill health at the end of the experiment, while all of the animals in the raw milk group were in excellent health.

Dr. Evelyn Sprawson of the London Hospital: “. . . In certain institutions, children who were brought up on raw milk. . . had perfect teeth and no decay. The result is so striking and unusual that it will undoubtedly be made the subject of further inquiry.”


What happened?
Why was there no further inquiry??
The Campaign Against Raw Milk

Coronet Magazine, May 1945

- Article in Coronet Magazine, May, 1945
- Seemingly factual article about a town called Crossroads, USA, where many died from undulant fever, contracted from raw milk
- One small problem: the whole story was made up, there was no Crossroads, USA, and no outbreak of undulant fever!
The Campaign Against Raw Milk

August, 1946, Reader's Digest repeated false story about Crossroads, USA

Lies about raw milk continue to this day!
PROTEINS IN MILK

MILK PROTEINS: Three dimensional, like tinker toys, very fragile

CARRIERS: Carry vitamins and minerals through the gut into the blood stream; comprise enzymes; enhance the immune system; protect against disease

IMMUNE DEFENSE: Pasteurization and ultra-pasteurization flatten (de-nature) the three-dimensional proteins, destroying their biological activity; the body thinks they are foreign proteins and mounts an immune defense.

DISEASES: Immune attacks lead to juvenile diabetes, asthma, allergies and other disorders later in life.

ALLERGIES: More and more people unable to tolerate pasteurized milk; one of the top eight allergies; some have violent reactions to it.

Lactoferrin Molecule
## Lowered Nutrient Availability in Pasteurized Milk

<table>
<thead>
<tr>
<th>Vitamin</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin C</td>
<td>Raw milk but not pasteurized can resolve scurvy. “... Without doubt. ... the explosive increase in infantile scurvy during the latter part of the 19th century coincided with the advent of use of heated milks...” Rajakumar, Pediatrics. 2001;108(4):E76</td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td>Longer and denser bones on raw milk. Studies from Randleigh Farms.</td>
<td></td>
</tr>
<tr>
<td>Vitamin B12</td>
<td>Binding protein inactivated by pasteurization.</td>
<td></td>
</tr>
<tr>
<td>Vitamin B6</td>
<td>Animal studies indicate B6 poorly absorbed from pasteurized milk. Studies from Randleigh Farms.</td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td>Lactoferrin, which contributes to iron assimilation, destroyed during pasteurization. Children on pasteurized milk tend to anemia.</td>
<td></td>
</tr>
<tr>
<td>Minerals</td>
<td>Bound to proteins, inactivated by pasteurization; Lactobacilli, destroyed by pasteurization, enhance mineral absorption. BJJN 2000 84:S91-S98; MacDonald and others. 1985.</td>
<td></td>
</tr>
</tbody>
</table>
ANEMIA AND BEHAVIOR

• “Infants with chronic, severe iron deficiency have been observed to display increased fearfulness, unhappiness, fatigue, low activity, wariness, solemnity and proximity to the mother during free play, development testing and at home.”

• Anemic infants who did not receive iron supplementation “never smiled, never interacted socially, and never showed social referencing.”

Infants on Pasteurized Human Milk - 1986


• CDC website notes that breast milk is best protection to infants “against salmonellosis and many other health problems.” Yet the agency warns against raw milk as a cause of salmonellosis. Cdc.gov/ncidod/dbmd/diseaseinfo/salmonellosis_g.htm.
1984 study involving high-risk premature infants

<table>
<thead>
<tr>
<th>Type of Milk</th>
<th>Rate of infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasteurized human milk + formula</td>
<td>33.0%</td>
</tr>
<tr>
<td>Raw human milk + formula</td>
<td>16.0%</td>
</tr>
<tr>
<td>Pasteurized human milk</td>
<td>14.3%</td>
</tr>
<tr>
<td>Raw human milk</td>
<td>10.5%</td>
</tr>
</tbody>
</table>

Pasteurized Milk = Increasing Health Problems in Children

- Allergies
- Asthma
- Frequent Ear Infections
- Gastro-Intestinal Problems
- Diabetes
- Auto-Immune Disease
- Attention Deficit Disorder
- Constipation

During a period of rapid population growth, the market for fluid pasteurized milk has declined at 1-3% per year for the past 30 years. Fewer and fewer consumers can tolerate pasteurized (and ultrapasteurized) milk.

Frank Oski, MD, Don’t Drink Your Milk, 1983
ASTHMA CRISIS

• Nine persons per day die from asthma in the United States, many of them children.

• What if we could prevent most of these cases through something as simple as offering raw milk in childhood?
ASTHMA & RAW MILK

• 2001 Lancet: Less asthma, allergies
• 2006 PARSIVAL Study: Less asthma, allergies
• 2011 GABRIELA Study: Less asthma, allergies
• 2012 AMISH: Less asthma, allergies
PROTECTION AGAINST RESPIRATORY INFECTION

• 2014 Study showed that raw cow's milk can protect against respiratory infection in infants
• When compared with processed milk, raw milk consumption was inversely associated with occurrence of rhinitis, respiratory tract infections, otitis, and fever.
• Very well done study
• Convinced European governments to continue to allow the sale of raw milk.
Raw Milk in Europe – Available in Vending Machines!
Location of Raw Milk Vending Machines in Italy
LACTOSE INTOLERANCE

• Results from a survey by Opinion Research Corporation (commissioned by the Weston A. Price Foundation) indicate that about 29 million Americans are diagnosed lactose intolerant.

• Results from a private survey carried out in Michigan indicate that 82 percent of those diagnosed as lactose intolerant can drink raw milk without problem.

• Thus, almost 24 million Americans diagnosed as lactose intolerant could benefit from raw milk.

wwwrealmilk.com/documents/LactoseIntoleranceSurvey.doc
Milk allergy is usually attributed to casein intolerance. Pasteurization destroys *L. lactis* and other lactic-acid bacteria indigenous to milk. These bacteria produce enzymes that break down the casein molecule. These findings suggest that raw milk could be consumed by those with milk allergy, including autistic children. We have received testimonials indicating that raw milk can be used to treat and even completely reverse symptoms of autism.

BE KIND TO YOUR PROTEINS . . .

“Processing milk causes the formation of protein oxidation products which impair spacial learning and memory in rats.” (RSC Adv., 2019, 9, 22161)

- Milk subjected to boiling, microwave heating, spray drying and freeze drying
- All four techniques caused oxidative damage to the milk proteins
- Feeding damaged milk proteins to rats resulted in learning and memory impairment.
- “This means that humans should control milk protein oxidation and improve the processing methods applied to food.”
Protective Components in Milk Fat

- **Short and Medium Chain Fatty Acids**: Disrupt cell walls of bad bacteria.
- **Sphingolipids**: Bind to intestinal cells, prevent absorption of pathogens and toxins.
- **Arachidonic acid**: Helps build gut wall, skin and brain
- **Fat-soluble vitamins A and D** strengthen the immune system.

- People on lowfat diets tend to have weakened immune systems.
- Drink only raw WHOLE milk!!
RAW MILK DIGESTIBILITY

• RAW MILK DIGESTS ITSELF!
  ▪ Enzymes in raw milk are activated in the digestive tract
  ▪ Enzymes and carrier proteins in raw milk ensure all nutrients are absorbed
  ▪ Friendly bacteria in milk aid in digestion
  ▪ No energy required to digest raw milk; net energy gain

• PASTEURIZED MILK IS VERY DIFFICULT TO DIGEST
  ▪ The body must supply the enzymes needed to digest the milk
  ▪ Proteins warped and distorted by pasteurization put additional strain on digestion
  ▪ Much energy required to digest pasteurized milk; net energy loss
• Glutathione: Key compound for detoxification
• High levels in whey protein
• Research in 1991 discovered that whey proteins only boost glutathione status in their raw, undenatured state.
• Explains the success of the Milk Cure

Raw milk magnified 175 times. Complex colloidal structure similar to that of all life forms. Raw milk is a “living” food.

Pasteurized milk magnified 175 times. Complex colloidal structure is lost. Pasteurized milk is “lifeless.”

Photographs by Dr. Beverly Rubik
Similarity of Life Forms—Colloidal Structure

- Surface of the sun
- Forest of trees
- Internal structure of ameba
- Raw milk
Microscopic Structure of Raw Milk

Raw milk magnified 4200 times. Structure is similar to that of blood.

Structure of blood under darkfield microscope.

Photographs by Dr. Beverly Rubik
SUMMARY

Research has shown that there is a very significant difference in the nutritional value of unpasteurized milk versus pasteurized milk.

Raw milk is inherently safe.

Pasteurization of milk is one of the greatest public health disasters in history.

What’s at stake: The health of millions of children worldwide. Raw milk can mean the difference between a healthy productive life and a miserable life.
RAW MILK FOR CHILDREN

- Calcium for optimal growth, strong bones, strong teeth.
- Protection against asthma, allergies, eczema
- Builds immune system.
- Glutathione for protection against toxins.
- Builds healthy gut wall.
Beautiful babies brought up on raw milk!
CONFINEMENT DAIRY SYSTEM

Cows never leave stalls. Life span averages 42 months.
THE MODERN COW – THREE MILKINGS PER DAY

Often milked for 600 days without a break, or until death.
MODERN MILK AT THE FACTORY

A RUST BELT TECHNOLOGY!!
### Feed Given to Confinement Cows

<table>
<thead>
<tr>
<th>Feed</th>
<th>Result in Milk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soy</td>
<td>Allergenic soy protein and estrogenic isoflavones</td>
</tr>
<tr>
<td>GMO Grains</td>
<td>Aflatoxins (liver poisons)</td>
</tr>
<tr>
<td>Bakery Waste</td>
<td>Trans fatty acids</td>
</tr>
<tr>
<td>Citrus Peel Cake</td>
<td>Cholinesterase inhibitors (pesticides that act as nerve poisons)</td>
</tr>
<tr>
<td>Hormones and Antibiotics</td>
<td>Hormones and Antibiotics</td>
</tr>
<tr>
<td>Swill from Ethanol Production!</td>
<td>Chemicals used in ethanol production</td>
</tr>
</tbody>
</table>
Compulsory pasteurization laws are largely responsible for the decline of American small towns and rural life.

Pasteurization laws transform what should be a local value-added product into a commodity product.

Dairy farms go out of business at a rate of 16 per day.

California: 600 dairy farms lost in 10 years.

Maryland: 1900 dairy farms in 1990; less than 400 today.
THE IMPORTANCE OF GRASS FEEDING

More vitamins – A, D and K

More minerals

Richer in butterfat

More CLA

No harmful industrial chemicals
Confinement Butter vs. Grass-Fed Butter

10–13 TIMES MORE VITAMIN A AND

3 TIMES MORE VITAMIN D IN GRASS-FED BUTTER
WWW.REALMILK.COM

- Detailed scientific information about raw milk
- Raw milk regulations by state
- Sources of raw milk at realmilk.com or through local chapters of the Weston A. Price Foundation (at www.westonaprice.org)
2000
Raw milk available in 27 states

2017
Raw milk available in 43 states
(thanks to the efforts of A Campaign for Real Milk)

Our Goal
Raw milk available in all 50 states by 2020!
Help us make raw milk sales legal in the remaining 7 states:

Delaware  Hawaii  Iowa  Louisiana  Nevada  New Jersey  Rhode Island
ALL TRUTH PASSES THROUGH THREE STAGES:

First, it is ridiculed.
Second, it is violently opposed.
Third, it is accepted as self-evident.