

## **THE CREAM NO LONGER RISES TO THE TOP**

### **WHAT IS HOMOGENIZATION?**

When milk is passed through a fine filter at pressures equal to 4,000 pounds per square inch, the fat globules (liposomes) are made smaller (micronized) by a factor of 10 times or more. These fat molecules become evenly dispersed within the liquid milk so that, by code, after 48 hours of storage at 45 degrees Fahrenheit, there is no visible cream separation in the milk.

### **HOMOGENIZATION: THE DAIRY INDUSTRY DOWNFALL**

Mankind often takes small steps in changing nature's natural mechanisms. In the case of HOMOGENIZATION, mankind has taken an accidental giant stride by insuring that protein hormones in milk survive digestion.

### **AN ACCIDENTAL SCIENTIFIC DISCOVERY**

Remember those time-release cold capsule television commercials? Encapsulate cold medicine in gelatin capsules and "medicine" works many hours after ingestion. Milk is nature's natural mechanism, delivering hormones, lactoferrins and immunoglobulins to nursing infants. Through homogenization, fat molecules in milk become smaller and become "capsules" for substances that bypass digestive processes. Proteins would normally be digested in the stomach or gut. By homogenizing milk, these proteins are not broken down and are absorbed into the bloodstream, intact.

### **MILK HORMONES ARE PROTECTED BY HOMOGENIZATION**

Genetic engineering makes a bad product worse. Milk naturally contains powerful growth hormones. Milk from cows treated with the genetically engineered bovine growth hormone contains increased amounts of naturally occurring hormones. After cows are treated with BST, levels of another hormone in milk, IGF-I, increase. IGF-I (insulin-like growth factor) is identical between humans and cows, and has been called the key factor in the growth of human cancer by more than one cancer researcher.

### **HOMOGENIZATION IS LINKED TO HEART DISEASE**

Two Connecticut cardiologists, Oster and Ross, demonstrated that cow proteins survive digestion. Every one of their heart patients developed antibodies to bovine proteins after consuming homogenized milk. This proved that milk proteins are not destroyed. These two scientists pointed the finger of blame at homogenization. **BOTTOM LINE:** Hormones in milk are protected, survive digestion and exert powerful effects on the human body.

### **ANTI-OXIDANTS**

Doctors and nutritionists can name long lists of substances that have collectively been called anti-oxidants. This group of vitamins and enzymes and minerals help the body to fight free radicals that cause degenerative diseases. These wonderful substances include, but are not limited to, Vitamins A, C, E, zinc, selenium and bioflavonoids. After asking your health advisor his or her expert opinion on anti-oxidants, see if he or she can identify just one oxidant.

### **THE DESTRUCTIVE "MOTHER OF ALL OXIDANTS"**

Previously, the scientific community believed that the survival of protein hormones was not possible because of the strength of stomach acid and enzymatic activity. Oster and Ross pointed the finger of blame at the homogenization process. They discovered the presence of an enzyme, bovine xanthene oxidase (XO), which, in theory, should not have survived digestion, but, in actuality, did. The XO Factor was identified as the element that destroyed one-third of the cellular material in atrial cells of 300 heart attack victims during a five-year study. Oster and Ross's observation was subsequently confirmed by a team of scientists at the University of Delaware who hypothesized that small quantities of this enzyme from milk, absorbed over a lifetime, might hold destructive biological significance.

### **THE CREAM ONCE ROSE TO THE TOP...**

Many of us would probably like to bring back the good 'ole days...if there was only a way. In 1940 there were nearly

twenty-four million dairy cows in the United States producing milk for 132 million Americans. The total pounds of milk consumed each day exceeded 2.2 pounds per individual, the equivalent of one quart. That amount has slowly declined each decade and has leveled off at a per capita daily intake of 1.6 pounds. Interestingly, the greatest decrease occurred after the dairy industry made the decision NOT to allow the "cream to rise to the top."

## **HOW MILK CONSUMPTION AND PRODUCTION CHANGED**

A dairy cow in 1930 supplied the milk and dairy needs for an imaginary family of 5.6 people. Today that same cow supplies the dairy needs of 30.7 people. The decline in consumption suggests that we take a closer look at:  
HOMOGENIZATION

A=Year

B=Number of cows in America (millions)

C=Billion pounds of milk produced in America each year

D=Quarts of milk produced per cow each day

E=Population of the United States in millions

F=Average daily consumption of milk per person (pounds)

G=Number of persons (daily milk consumption) supplied by one cow

A	B	C	D	E	F	G
1930	22.2	100.2	5.6	123.2	2.2	5.6
1940	23.7	109.4	5.8	132.2	2.3	5.6
1950	21.9	116.6	6.6	151.3	2.1	6.9
1960	17.5	123.1	8.8	179.3	1.9	10.2
1970	12.0	117.0	12.1	203.3	1.6	16.6
1980	10.8	128.4	14.8	226.5	1.6	20.4
1990	10.2	147.7	18.0	248.8	1.6	24.8
1998	9.3	156.6	22.3	270.0	1.6	30.7

## **WHAT DOES THIS CHART REVEAL?**

From this chart we observe an extraordinary phenomena. It started in the 1950's and by 1970 the full effect was evident. As HOMOGENIZED MILK became custom, milk consumption experienced its most dramatic decreases. An entire society sent its collective message to the dairy industry. That message was ignored.

## **THE SOLUTION TO ONE PROBLEM**

By returning to the days when cream once again rises to the top of the bottle, dairymen would eliminate the artificial mechanism by which milk proteins survive in such great quantity. Many scientists have considered innumerable factors in explaining increased rates of cancers and heart disease. **Homogenization has not been given the blame, nor the attention that it merits.**

Dear NOTMILKMAN, There is an important detail missing from your review of homogenization. You noted that confirmed research demonstrated a relationship between the micronization of fat globules and heart disease, but you did not state the mechanism. John McDougal, John Robbins, and others have reported that these micronized fat globules are much "sharper" than their larger forebearers, and serve to abrade arterial lumen (the innermost linings of these blood vessels). Such chronic irritation triggers a protective mechanism whereby the body plates out cholesterol onto the lumen to protect it from the constant irritation produced by the micronized fat globules. The end result is atherosclerotic plaquing. Combined with two other phenomena of our culture -- high level consumption of hydrogenized vegetable oils (another source of this intra-lumen plaque) plus the onslaught of simple sugars and refined flours (which trigger high level bursts of another potent intra-luminal irritant known as insulin) --this unavoidable side-effect of drinking homogenized milk produces the rapid acceleration of cardiovascular disease now routinely seen in young people. There was also an important detail contained in your article which deserves far more publicity than it has received to date: the "encapsulation" phenomenon which prevents destruction of milk proteins and hormones in the acid environment of the stomach. Thank you for including this information in your report! However, there is a physiological fact commonly recognized in the field of geriatrics which may render useless the

value of return to non-homogenized milk for a large segment of the population. This fact is that the average 60-year-old produces only 15% of the stomach acid seen in the average 20-year-old. And when one factors in the continued medical and pharmaceutical (PR) malpractice of prescribing antacids for ulcers (now known to be the exclusive result of *Helicobacter pylori* infection), it becomes obvious that the protective role of stomach acid cannot be relied upon by the vast majority of people in the United States. I recognize that the scope of your newsletter does not usually extend to these related issues. However, I share them with you to add perspective to the issues you are championing currently. Thank you for your time. --Noel A. Taylor, MM, DC