

If I asked you to take a substance that may be a contributing factor for diseases such as: Leukemia, type-1 Diabetes, constipation, sudden infant death syndrome, sinus problems, Multiple Sclerosis, and a host of others, would you take it? What if I told you it tasted great, would you take it then? Most people, given the list of possible dangers, would say no thank you. Yet, every day millions, hundreds of millions, of people consume such a substance, often in huge quantities. This substance has been said to be; good for growing bodies, an aid to weight loss, help for bone loss, and a necessary part of every persons diet. We are, of course, talking about Milk.

Milk, it does a body good! Does it really? In this paper we will explore some of the research regarding the possible effects of milk and milk by-product consumption. Our goal is not to condemn milk; rather, it is to bring to light some of the little known research so that we can make an informed decision. Many illnesses and diseases that people struggle with can be aggravated or caused by dietary or life-style choices. The only way we can protect ourselves is to have adequate information.

### **Background**

The average American drank; 22 gallons of milk, 10 pints of cream and sour cream, 6.5 pints of yogurt, 60 pounds of cheese, and 27 pounds of frozen dairy products in 2001 (United states Dept. of Agriculture, 2004). When all milk products are converted to their milk weight (cheese takes 8-10 pounds of milk for one pound of cheese) this works out to over 1000 pounds a year of milk products. While close to 3 pounds a day may seem like a high figure, a couple of facts may put it into perspective; one gallon of milk weighs 8.65 pounds, 1/3 of a pound of cheddar cheese weighs 3.33 pounds (of original milk), and a quart of ice cream weighs at least 1

pound (this is 3 pounds of milk) (National Milk Producers Federation, 2004). We can see from the above figures that consuming 3 pounds of milk a day is not at all difficult.

### **Osteoporosis**

As we age, our bones get weaker. This weakening can cause numerous problems for an aging individual., including hip fractures and spinal curvature. The American population has been taught that drinking milk and eating dairy products is a sensible way to maintain strong bones. Unfortunately, the facts are a bit different. A 2003 study looked at the relationship between milk consumption, dietary calcium (milk is touted as the best source) and hip fractures (Cohen, 2002). The researchers determined that milk provides no protection against hip fractures, nor did it play a role in preventing osteoporosis. In fact, an earlier Harvard Nurses Study (Cohen, 2002) showed that women who consumed larger amounts of calcium from dairy sources had a significantly greater risk of hip fractures.

### **Diabetes**

Insulin dependent Diabetes (Type 1) usually begins in childhood and there are about 13,000 new cases a year (Dowshen, 2001). Researchers believe that children inherit a genetic predisposition to Type 1 diabetes, but the disease does not become active until triggered. As noted by the Physicians Committee for Responsible Medicine (Physicians committee for responsible medicine, 2001) a few studies have shown a correlation between the use of dairy products and the rate of insulin-dependent diabetes. The research seems to show that a specific dairy protein can trigger an autoimmune response, which is believed to be what leads to this type of diabetes. The journal *Lancet* stated it this way “Antibodies to bovine beta-casein are present in over a third of IDDM (Type 1) patients and relatively non- existent in healthy individuals (Cohen, 2001a).” A follow up article in *Diabetes Care* put it this way “These new studies, and

more than 20 well-documented previous ones, have prompted one researcher to say the link between milk and juvenile diabetes is “very solid”(Cohen, 2001a). The link between milk proteins and Insulin Dependent Diabetes is not completely established, yet there is enough evidence that any mother whose family has a history of this type of illness would be well advised to keep milk and their children separate.

### **Crohn’s Disease**

Crohn’s Disease affects over half a million individuals in the U.S., the condition causes intense diarrhea, nausea, vomiting and fevers. First described in 1932 by Dr. Crohn the incidence of the disease has steadily risen, now it is reaching epidemic proportions (Greger, 2001). Crohn’s disease is nearly identical to another disease which effects cow herds, Johne’s disease. A 1997 USDA study found that between 20-40% of the US dairy herds were infected with the paratuberculosis bacteria (the cause of Johnes’s and most likely Crohn’s) (Greger, 2001). The USDA went on to further state that they felt the reported numbers were on the low side. Even though there is quite a bit of evidence implicating paratuberculosis as the cause of Crohn’s disease, both the FDA and USDA have routinely refused to call for inspections of off the shelf milk. The Editor and Chief of the Cleveland Free Times wrote:

The dairy lobby is notoriously powerful inside the Washington beltway... to the point where wholesomeness of milk goes virtually unquestioned in the media. How else can it be explained that the possible link between a bacterium in milk and Crohn’s Disease is virtually unknown in the US, despite front-page coverage in England and other places around the world.” (Greger, 2001).

According to the Food and Agriculture Organization of the United Nations Johne’s disease is one to the most serious illnesses affecting cattle herds (Greger, 2001). The disease is found in herds

throughout the world, but the US herds seem to be the most seriously affected (Greger, 2001). Interestingly, the rise in Johne's is matched by an alarming rise in Crohn's disease in the US population (Greger, 2001). Of course, this could be coincidental. Yet the FDA and USDA have refused to regulate contaminated animals to try and minimize the spread of this disease.

### **Multiple Sclerosis**

Multiple Sclerosis (MS) and Type 1 Diabetes are very similar diseases. According to Michael Dosch, M.D., in a test tube, you can't tell the two apart (Cohen, 2001b). Both diseases attack the same tissues, with a slightly different action. Due to the similarities in the two diseases it is not surprising that researchers have also identified links between MS and milk proteins. Along with other studies, a 2004 study showed a correlation between onset of MS and an autoimmune response to a protein in milk (Johannes et al., 2004).

### **Discussion**

We have explored a few different diseases and their connection to dairy products. It is important to note that there are many other potential problems with milk consumption. Probably the largest concern is contamination. Dairy herds are treated with a wide range of pharmaceutical compounds, everything from antibiotics to growth stimulating hormones. The FDA routinely changes the allowable standards for antibiotics to match what is showing up in tested milk, beyond that the government only tests for 6 antibiotics while there are over 50 commonly used in dairy herds (Cohen, 2000a).

Cow's Milk contains huge amount of Insulin-Like Growth factor (IGF-1). This growth factor is identical in humans and bovines. The purpose of IGF-1 in cows is to rapidly increase weight from calf size to full cow weight very rapidly. An excess of IGF-1 in humans is a possible contributor to the obesity epidemic we see in our population. Additionally, IGF-1 has

been strongly linked to a variety of cancers, including; lung, breast, prostate, and a host of others (Cohen, 2000b). If that isn't enough, dairy herds are now treated with a genetically modified growth hormone (rbGH), its purpose is to increase the amount of IGF-1 in the cow's system

If that isn't enough, cow's milk is chock full of another substance, pus. The federal standards limit pus to 50 million cells per cup (Cohen, 2003). As the standards were written the maximum pus level is 200,000 cells per milliliter, anything above that is unfit to drink. A 2001 state by study showed that the milk supply in the 48 continental states is unfit to drink; many states had pus levels more than double the allowed standards (Cohen, 2003).

The human body is a wonderfully adaptive system. Given the chance, it can fight off illness and disease. Yet if it is constantly subjected to unhealthy substances it will become unable to protect itself. It is clear from the preceding information that cow's milk and its products is not suitable for the human body. Even common sense tells us this is so. All mammals create milk; it is designed to feed the young of each species for a very short period of time. Milk is unique to each species. There is a huge difference between human milk and that of Cow's. Continually subjecting the human body to huge amounts of foreign protein (3 lbs. a day!) is bound to have negative effects.

Cow's Milk is unhealthy in its purest form. The dairy industry has made it even worse. Herds are routinely ill and infected with a host of diseases; since all milk from a herd is pooled the effect is that all milk is contaminated. Fifty years ago the average cow produced 2,000 pounds of milk per year. Today, top producers give 50,000 pounds! This has been accomplished through, drugs, antibiotics, forced feeding, hormones and now, genetically modified growth hormones.

This paper has just touch on the subject of the health risks from cow's milk. We haven't even looked at the connection between cow's milk and diseases like constipation, leukemia or Parkinson's. Nor have we considered that huge portions of the population are allergic or lactose intolerant. The medical and biological literature is filled with articles about the negative effects of milk, yet we hear very little. Could it be that a multi-billion dollar industry is hard at work protecting its product? Milk anyone?

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