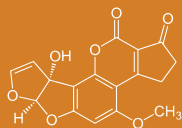


Milk Is Safer Than We Thought

New research dispels the myth that drinking milk contaminated with Aflatoxin M1, a fungal toxin, causes liver cancer. Evidence from four continents shows that out of an abundance of caution regulatory standards have been set unnecessarily low, and as a result mandating that milk processors dispose huge quantities of milk. In such cases, the risk of poor nutrition due to milk disposal is much higher than the risk of cancer. The risk is not zero, but it can be considered negligible at about 30 cases a year. **This level is nearly 10,000 times less than the risk of being struck by lightning.**

What is Aflatoxin M1?



There are several aflatoxins that affect crops, but the version in milk is called aflatoxin "M1." Cows and other mammals produce the toxin after they eat the more dangerous aflatoxin "B1," which is produced by certain *Aspergillus* fungi on crops such as corn and peanuts. Because of this close relationship, and because aflatoxin B1 is confirmed as a carcinogen, one might assume that aflatoxin M1 also poses a high risk. But research has found: M1 is "minor," B1 is "bomber."

Key Findings From New Research

International standards for aflatoxin M1 in milk are not risk-based.

The risk of liver cancer from drinking milk contaminated with aflatoxin M1 is much lower than previously thought.

There is no evidence for other serious health effects from consuming milk containing some aflatoxin M1.

Dumping of such milk creates economic and nutritional risks that far outweigh the minimal cancer risk.

A pebble is almost nothing when compared to a mountain, just as the risk from aflatoxin M1 is minor and does not justify the undernutrition caused by dumping of milk

Research Details

Below are the three main research articles used in this post. The 2021 and 2022 journal articles were funded by the Feed the Future Innovation Lab for Livestock Systems, located at the University of Florida (UF). A more detailed Research Brief is available at <https://livestocklab.ifas.ufl.edu/>

- Liu Y, and Wu F. Global burden of aflatoxin-induced hepatocellular Carcinoma: A risk assessment. *Environmental Health Perspectives*. 2010;118:818-24. Doi: 10.1289/ehp.0901388.
- Saha Turna N, Wu F. Aflatoxin M1 in milk: A global occurrence, intake, & exposure assessment. *Trends Food Sci Technol* 2021;110:183-92. Doi: 10.1016/j.tifs.2021.01.093.
- Saha Turna N, Havelaar A, Adesogan A, Wu F. Aflatoxin M1 in Dairy is not expected to contribute substantially to global liver cancer incidence. *American Journal of Clinical Nutrition*. 2022.

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