Smart Meat and Dairy Guide for Parents and Children

Safer, sustainable food for healthy children and a healthier environment

Meat and dairy products can be part of a healthy well-balanced diet. They are good sources of protein, iron, calcium, vitamin D and other nutrients essential for children and pregnant and nursing women. But these foods also can contain toxic pollutants at varying levels, including dioxins, polychlorinated biphenyls (PCBs) and flame retardants.

The industrial or factory-style production that dominates meat and dairy production today can create environmental pollution that contaminates our food. It can also contribute to disease-causing bacteria on food.

Government and industries need to do a better job of cleaning up the food supply. However, parents can reduce their family's exposure to chemicals by making informed food choices. This guide will help you choose meat and dairy products produced more sustainably and with lower levels of pollutants, protecting both your family's health and the environment.

Chemicals of concern

Meat and dairy products contain animal fat and, therefore, higher levels of certain toxic chemicals that accumulate in fat, like dioxins and PCBs. Besides being "fat friendly," these chemicals persist in the environment and in living tissues.

Dioxins are unintentional byproducts of industrial activities that are released into the air and settle in water bodies, where they build up in fish, and on grasslands, where grazing cows ingest them. People are exposed to dioxins through consumption of meat, fish and dairy products. Fetuses are at greatest risk from exposure to dioxins, which cross the placenta during pregnancy. Fetal exposure to dioxins and dioxin-like compounds is correlated with the mother's body burden of these chemicals.[1]

PCBs are a class of chemicals used in electrical equipment, hydraulic fluids, adhesives and other products. Although banned in the United States in 1979 due to evidence of toxicity even at low levels, their widespread use and persistence in the environment ensures that PCBs will continue to remain a significant source of environmental and food contamination for many years. Like dioxins, PCBs build up in the food chain in meat, fish and dairy products.

> The EPA "concluded that dioxins could adversely affect human health at lower exposure levels than previously thought and that some adverse noncancer effects, such as reproductive and developmental impairments, could occur at or near the levels to which the general population is now being exposed."[5]

Human health impacts from long-term exposure to low levels of dioxins and PCBs include:

- Cancer. The World Health Organization classifies dioxin as a human carcinogen and PCBs as probable human carcinogens.[2]
- Non-cancer health effects include adverse effects on thyroid hormone, brain development, reproduction, immune system and birth weight.[1] Dioxins and PCBs are especially toxic to growing, developing brains. Prenatal exposure can result in permanent IQ deficits.[3,4]

Flame retardants. Certain brominated flame retardant chemicals (BFRs) are widely used in products today. Chemically, they resemble PCBs. BFR levels are increasing exponentially in breast milk and food, even while levels of dioxins and PCBs have slowly declined over time.[6] Levels in U.S. women's breast milk are reported to be 10–100 times higher than levels in European women.[7,9] Dietary intake of animal-based foods is a significant contributor to high body burdens of BFRs in the United States.[8]

Although data on the human health effects are lacking, animal studies confirm that BFRs are toxic to developing organisms with adverse effects on the brain, reproductive system, thyroid function and liver.[9,10]

Ecological impacts of industrial meat and diary production

Today's food production is increasingly industrial. An estimated 54 percent of U.S. livestock and poultry are now concentrated on 5 percent of farms, and the largest such farms keep getting larger.[11] Factory-style food production includes many practices for short-term economic gains, but with negative impacts on the environment and human and animal health. These practices include routine use of antibiotics in animal feed to healthy animals to promote growth and injecting hormones into cows to increase milk production. Factory farms create air and water pollution and expose workers to unsafe working conditions. For more information see iatp.org/foodandhealth.

Conclusion

Choose lower-fat, sustainably produced meat and dairy products to protect children from chemical exposures while supporting a healthier environment.

What else can parents do?

- Ask local supermarkets to carry more organic and grass-fed meat and dairy products.
- Ask schools and child care centers to include low-fat, hormone-free meat and dairy products in the lunch program.

More resources and links at iatp.org/foodandhealth or contact

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Tips for healthier meat and dairy consumption

- Select lean meat cuts and cut off visible fat before cooking.[1]

- Use lower-fat cooking methods including broiling, grilling, roasting or pressure-cooking, as cooking and preparation methods can reduce dioxin levels by up to half.[12,13,14] Do not use lard, bacon grease or butter for frying—dioxins concentrate in these fats. If you pan fry, discard the fat after cooking. Avoid gravies made from meat fat or juices.

- Serve low-fat milk to adults and children age two and older. Children under age two need milk with a higher fat content.

- Choose other low-fat dairy products including cheese, yogurt and cottage cheese.

- Buy organic. Try to buy certified organic pork, beef and poultry from animals raised without use of antibiotics, genetic engineering, irradiation, sewage sludge and artificial ingredients.

- Look for grass-fed beef. Beef from grass-fed cattle is leaner, lower in fat and calories,[15] while higher in vitamin E[16] and antioxidants than beef from cattle raised on a corn diet. It is also lower in saturated fats and higher in omega-3 fats.[17] One study showed eating grass-fed beef helped reduce "bad" cholesterol and increased "good" cholesterol.[18] Cattle raised on pasture rather than on corn-based diets also may be less susceptible to contamination with E. coli and other disease-causing bacteria.[19]

- Use the Eat Well Guide, an online guide to sources of organic, sustainably-raised meats and dairy products near you. eatwellguide.org

- Use proper handling and cooking practices to reduce risk of food poisoning. See FDA recommendations at cfsan.fda.gov/~dms/fdunwelc.html

Following these guidelines will not only reduce your intake of toxic chemicals, but will also help control weight.

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