

# FDA HAS BEEF WITH 'SERIOUS THREAT' OF MOST SUPERMARKET MEAT

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## Introduction

A new report from the U.S. Department of Agriculture (USDA) has found that many dangerous substances, including pesticides, veterinary medicines, dioxin, and heavy metals such as arsenic, are winding up in the nation's beef supply because government agencies haven't worked together to set limits. The report makes clear that coordination between the USDA, the Food and Drug Administration (FDA), and Environmental Protection Agency (EPA) is lacking, making it difficult to recall beef contaminated with these harmful substances.

## Report Details

The audit report, released by USDA's Food Safety and Inspection Service's (FSIS's) Office of Inspector General, found that common contaminants that can make their way into beef are not currently restricted in meat, even though contamination could harm human health. For instance, FSIS says the following medicines, feed supplements, and other contaminants could harm human health when people eat tainted beef:

- (1) flunixin, a veterinary drug that can cause kidney damage, stomach and colon ulcers, and blood in the stool of humans;
- (2) penicillin, a drug that can cause life-threatening reactions in people who are allergic to it;
- (3) ivermectin, an animal wormer that can cause neurological damage in humans;
- (4) arsenic, a known carcinogen that is allowed in some non-organic animal feeding operations (it is commonly fed to chickens, and chicken litter, or feces, is sometimes fed to feedlot cattle—the majority of supermarket and fast-food beef in this country comes from feedlot operations); and
- (5) **Copper**, an essential element we need for our survival, is harmful when too much accumulates in our bodies. And it is being found in beef we eat, although U.S. agencies haven't been protecting consumers from it, even though some third-world countries manage to do so. In 2008, Mexican authorities rejected U.S. beef because it contained copper in excess of Mexico's tolerance levels. Because the U.S. doesn't have a set threshold for copper in beef, the meat was sent to U.S. stores, and ultimately, purchased by consumers.

## Implications

When we think of food safety, we generally think about *E. coli*, *Salmonella*, and *Listeria monocytogenes* contamination making people sick, but this report sheds light on the problems of drug, pesticide, and heavy metal residues that can also accumulate in our bodies and make us sick. According to the report authors, "while cooking meat properly can destroy these pathogens before they are consumed, no amount of cooking will destroy residues. In some cases, heat may actually break residues down into components that are more harmful to consumers."

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That's why it's more important than ever to seek out meat from sources we trust, and ideally, from farms where we can visit and perform an on-site inspection yourself, asking farmers what the animals eat, and seeing what type of conditions they live in.

## How to Avoid Becoming Sick From Contaminated Meat

- **Cut it out.** The overuse of antibiotics in raising cattle and other livestock helps create antibiotic-resistant strains of diseases, which sometimes have lethal consequences. One such strain, MRSA (Methicillin-Resistant *Staphylococcus Aureus*), is estimated to kill 18,000 people a year—that's more than annual deaths from AIDS in this country. Support congressional efforts to eliminate the overuse of antibiotics on crowded, filthy cattle-feedlot operations, where animals are crammed together and fed unnatural corn and soy diets (they should be eating grass), which has been shown to increase the proliferation of the dangerous drug-resistant *E. coli* O157:H7 in the guts of the cattle.
- **Know your farmer.** Buying organic, grass-fed beef often seems more expensive than conventional supermarket meat, but many food experts agree that feedlot meat doesn't reflect the true cost of the meat. In feedlot operations, thousands of cattle are squashed into a small area and fed antibiotics, hormones, and unnatural, government-subsidized feed to accelerate their growth and stave off infections. Virulent *E. coli* outbreaks have been linked to feedlots, and researchers are finding MRSA in supermarket meat, as well. It's best to buy from someone who we know raises animals in unconfined conditions, and who allows them to eat a natural diet to cut back on disease. Also, hormones and antibiotics are banned in USDA-certified organic meat production, so buy organic to protect your health.
- **Pretend it's always flu season.** We know to wash our hands often during flu season, but with the proliferation of harmful superbugs in supermarket meat, it's important to wash your hands and properly sterilize all cutting boards, utensils, and surfaces after preparing meat.

## Update

Could the meat machine model that produces the majority of cheap and unhealthy meat in the United States finally be on its way out? It's one step closer, at least. The Food and Drug Administration (FDA) is pushing to severely limit the amount of antibiotics used in producing meat in the United States, the majority of which comes from concentrated animal-feeding operations, or CAFOs; these operations focus on optimum efficiency, which means cramming the highest number of animals in the smallest space possible. These types of systems rely on antibiotics to speed growth and reduce disease outbreaks among the animals living in filthy and overcrowded conditions. "Using medically important antimicrobial drugs as judiciously as possible is key to minimizing resistance development and preserving the effectiveness of these drugs as therapies for humans and animals," says Bernadette Dunham, DVM, PhD, director of the FDA's Center for Veterinary Medicine. "FDA is committed to working with animal drug sponsors, the veterinary and public health communities, the animal agriculture community, and all other interested stakeholders in developing a practical strategy to address antimicrobial resistance concerns that is protective of both human and animal health."

Citing multiple studies that link the overuse of antibiotics in farming (the Union of Concerned Scientists estimates that 70% of the drugs used in this country are used in agriculture) to the emergence of superbugs, resulting in antibiotic-resistant infections such as MRSA, the FDA is

moving to greatly limit the amount of drugs administered to farm animals to accelerate growth. Antibiotics which are used in agriculture and are often relied on to treat human illnesses include penicillin, tetracycline, macrolides, and erythromycin. The draft guidance issued by the FDA would curb the use of antibiotics to promote faster growth in animals and require that a veterinarian oversee the administration of drugs in animals. The draft guidance is open to public comment for 60 days. The National Pork Producers Council released a statement saying current guidelines are already sufficient, although the science doesn't seem to suggest that at all.

The point is, when all of these nasty chemicals and drugs are used in producing animal feed or on the animal itself, they don't go away after the animal is slaughtered. Dangerous compounds linger, and can even become more dangerous when cooked.

### Safer Options

- **Find grass-fed.** Multiple studies have found that grass-fed beef is healthier for the cow and the person who eventually eats it. (One unpublished study out of Texas A&M University suggests an unnatural feedlot diet of corn is healthier for humans, although that study is industry-sponsored, and the study author refused to answer questions from Rodale.com.) Organic production bans the use of antibiotics, pesticides, and hormones in meat production. If it's labeled organic grass-fed, be sure to check that the cattle are fed organic hay in the winter.
- **Eat less beef.** Since organic meat is more expensive because the government doesn't subsidize feed, eat meat less often, supplement with protein-rich (and dirt cheap) organic beans, and splurge on organic meat for special occasions.
- **Speak up.** Let lawmakers know that you want unnecessary use of antibiotics eliminated. It's a risk to human health and our economy—antibiotic-resistant strains are much more expensive to treat.
- **Wash wisely.** Other research is finding that the increased use of antibacterial chemicals in soaps and cleaners, such as *triclosan*, is also leading to the development of antibiotic-resistant strains of bacteria. Regular soap and water works just as well, but without the hormone-disrupting and antibiotic-resistant qualities.

### Guide to Buying Grass-Fed Beef

Recent revelations that a company in South Dakota had been injecting its beef with ammonia to kill bacteria may have turned you off beef. The practice, it seems, is legal and was being used to kill food-borne bacteria, although tests from *The New York Times* revealed that the ammonia wasn't doing a very good job, and that *Salmonella* and *E. coli* still lingered after the cleansing dip.

One way to avoid the scary practices of commercial meat processors is to switch to organic meat, which has seen a surge in sales over the past few years. According to the National Cattlemen's Beef Association, sales of organic beef rose steadily until the recession reached its peak in 2008. But sales have since rebounded, and in mid-2009, hit levels 14 percent higher than they were two years ago. However, health scares don't seem to be behind the upswing, nor does a desire for "elite" gourmet food seem to be the motivating factor. Shannon Hayes, a partner at Sap Bush Hollow Farm in upstate New York and the founder of GrassFedCooking.com noticed that most

of the people who bought her farm's grass-fed beef weren't the wealthiest residents in her area. Hayes heard similar anecdotes from other farmers, so she conducted a survey of about 20 families nationwide to find out why they were buying grass-fed beef. Most of the interviewees were not in the elite bracket but in the middle and lower classes. Of the 20 families interviewed, most made around 200% of poverty-level income. They were buying beef because they had chosen a life of social responsibility. While the health reasons drew people's interests, it was more the social issues, especially putting money into their own community. If they were going to eat meat, they wanted it to be ecologically responsible.

Grass-fed beef is definitely more environmentally friendly than conventionally produced beef, with its energy-intensive production of grain to feed cattle that then produce more of the greenhouse gas methane because their bodies can't handle the grain. If you're looking for a way to cut your carbon footprint this year, as well as avoid exposure to ammonia or whatever else might be used in mainstream beef production, give grass-fed beef a try.

### **Common Terms on Grass-Fed Beef Packages**

**"Grass-fed" versus "Pastured" versus "Free-Range":** Catering to the public's desire for more eco-friendly meat-production processes, companies have started stamping labels on food that don't always mean what you think they do. "Grass-fed" is a term for which the USDA actually has a legal definition. Only meat from "ruminant" animals—animals that survive on grass, such as cattle and sheep—can be labeled grass-fed. (So if you ever see eggs or pork with "Grass-fed" on the package, buy another brand.) The animals have to be fed a diet of grass, hay, and forage their entire lives, and be provided access to pasture. However, as with most government rules, there's a downside. Any farmer using that term before the new definition was established could be grandfathered in, regardless of whether they now comply with the new rule.

The USDA doesn't have any legal definition for "Pastured," but it typically means that animals are outside eating grass but are also fed grain. Usually, the label is applied to omnivorous animals that need something in addition to grass to survive, such as pigs, turkeys, and chickens. "Free-range" is a term the USDA has defined vaguely for poultry, but not at all for beef – grass-fed and pastured animals are by nature free-range.

**Grass-Finished:** As mentioned previously, "Grass-fed" doesn't always mean the animals ate nothing but grass. On small farms, it seems that animals are determined to be ready one animal at a time, and farmers pay close attention to each animal to see if it's fattened enough to slaughter. That's how the farmer obtains really top-quality meat, by knowing the individual characteristics of each animal. On larger-scale farms, however, even with organics, it's more efficient to ready an entire herd to be slaughtered all at once.

USDA organic-certification rules permit farmers to fatten a grass-fed herd up with corn, soy, or other grain-based feed, provided that it's organic, which isn't a practice some small farmers agree with. Finishing them with grain eliminates all the health benefits of grass-fed beef in three months when they are finished with grain. Feeding grain to cattle increases the acidity of an animal's stomach, increasing the levels of bacteria, including *E. coli*, in their guts. So it's best to look for "grass-finished" beef, but even that can be tricky, since it's not a common term and most farmers who grass-finish their beef don't usually advertise that. The best way to know is to simply ask.

## Certifications

If it's not always possible to know the farmer, or someone who knows the farmer, third-party certifications are a good way to ensure you're getting good beef. There's the USDA Organic certification, but as mentioned, it allows the use of some grain feed. The new American Grassfed Association's certification, which is the only one out there that stipulates that animals can eat nothing but grass for their entire lives, is the best process. The other common certifications, including Animal Welfare Approved and Certified Humane Raised and Handled, allow the use of grain, in part because it can be difficult to feed an animal on grass its entire life.

Farmers have made incredible advancements in the way they manage their pastures. Buying grass-fed beef from a farmer who can tell you how he treats his animals and how he finishes his animals is the gold standard. Failing that, your best bet is to look for a third-party certification such as the American Grassfed Association (which is considered the best of the available certifications), Certified Humane Raised and Handled, Animal Welfare Approved, or USDA Organic.

## Grass-Fed Basics<sup>2</sup>

**Back to Pasture.** Since the late 1990s, a growing number of ranchers have stopped sending their animals to the feedlots to be fattened on grain, soy and other supplements. Instead, they are keeping their animals home on the range where they forage on pasture, their native diet. These new-age ranchers do not treat their livestock with hormones or feed them growth-promoting additives. As a result, the animals grow at a natural pace. For these reasons and more, grass-fed animals live low-stress lives and are so healthy there is no reason to treat them with antibiotics or other drugs.

**More Nutritious.** A major benefit of raising animals on pasture is that their products are healthier for you. For example, compared with feedlot meat, meat from grass-fed beef, bison, lamb and goats has less total fat, saturated fat, cholesterol, and calories. It also has more vitamin E, beta-carotene, vitamin C, and a number of health-promoting fats, including omega-3 fatty acids and “conjugated linoleic acid,” or CLA.

**The Art and Science of Grassfarming.** Raising animals on pasture requires more knowledge and skill than sending them to a feedlot. For example, in order for grass-fed beef to be succulent and tender, the cattle need to forage on high-quality grasses and legumes, especially in the months prior to slaughter. Providing this nutritious and natural diet requires healthy soil and careful pasture management so that the plants are maintained at an optimal stage of growth. Because high-quality pasture is the key to high-quality animal products, many pasture-based ranchers refer to themselves as “grassfarmers” rather than “ranchers.” They raise great grass; the animals do all the rest.

**Factory Farming.** Raising animals on pasture is dramatically different from the status quo. Virtually all the meat, eggs, and dairy products that you find in the supermarket come from animals raised in confinement in large facilities called CAFOs or “Confined Animal Feeding Operations.” These highly mechanized operations provide a year-round supply of food at a reasonable price. Although the food is cheap and convenient, there is growing recognition that factory farming creates a host of problems, including:

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- Animal stress and abuse
- Air, land, and water pollution
- The unnecessary use of hormones, antibiotics, and other drugs
- Low-paid, stressful farm work
- The loss of small family farms
- Food with less nutritional value.

**Unnatural Diets.** Animals raised in factory farms are given diets designed to boost their productivity and lower costs. The main ingredients are genetically modified grain and soy that are kept at artificially low prices by government subsidies. To further cut costs, the feed may also contain “by-product feedstuff” such as municipal garbage, stale pastry, chicken feathers, and candy. Until 1997, U.S. cattle were also being fed meat that had been trimmed from other cattle, in effect turning herbivores into carnivores. This unnatural practice is believed to be the underlying cause of BSE or “mad cow disease.”

**Animal Stress.** A high-grain diet can cause physical problems for ruminants—cud-chewing animals such as cattle, dairy cows, goats, bison, and sheep. Ruminants are designed to eat fibrous grasses, plants, and shrubs—not starchy, low-fiber grain. When they are switched from pasture to grain, they can become afflicted with a number of disorders, including a common but painful condition called “subacute acidosis.” Cattle with subacute acidosis kick at their bellies, go off their feed, and eat dirt. To prevent more serious and sometimes fatal reactions, the animals are given chemical additives along with a constant, low-level dose of antibiotics. Some of these antibiotics are the same ones used in human medicine. When medications are overused in the feedlots, bacteria become resistant to them. When people become infected with these new, disease-resistant bacteria, there are fewer medications available to treat them.

**Caged Pigs, Chickens, Ducks and Geese.** Most of the nation’s chickens, turkeys, and pigs are also being raised in confinement. Typically, they suffer an even worse fate than the grazing animals. Tightly packed into cages, sheds, or pens, they cannot practice their normal behaviors, such as rooting, grazing, and roosting. Laying hens are crowded into cages that are so small that there is not enough room for all of the birds to sit down at one time. An added insult is that they cannot escape the stench of their own manure. Meat and eggs from these animals are lower in a number of key vitamins and omega-3 fatty acids.

**Environmental Degradation.** When animals are raised in feedlots or cages, they deposit large amounts of manure in a small amount of space. The manure must be collected and transported away from the area, an expensive proposition. To cut costs, it is dumped as close to the feedlot as possible. As a result, the surrounding soil is overloaded with nutrients, which can cause ground and water pollution. When animals are raised outdoors on pasture, their manure is spread over a wide area of land, making it a welcome source of organic fertilizer, not a “waste management problem.”

**The Healthiest Choice.** When you choose to eat meat, eggs, and dairy products from animals raised on pasture, you are improving the welfare of the animals, helping to put an end to environmental degradation, helping small-scale ranchers and farmers make a living from the land, helping to sustain rural communities, and giving your family the healthiest possible food. It’s a win-win-win-win situation.