

# Concerned about burger safety?

## First line of defense: food thermometer, spray bottle of kitchen cleaner

DALLAS (MCT) — Tracey Williams is used to her friends' questions about food safety: The recent MBA graduate from Southern Methodist University also sports a master's degree in meat science from Texas A&M.

Recent alarming reports about the safety of ground beef have made the questions even more timely.

Williams' bottom line: "I think the average consumer just needs to know how to properly prepare meat," she said. "And I think most people don't follow all the steps."

Even so, she buys her burger meat in a store where she knows it's ground fresh daily from sources she can identify — which can be impossible to do with most commercially prepared hamburger.

Choosing their stores and reading their labels carefully is a first step for shoppers worried about what goes into their ground beef. Williams and other meat experts say the consumer's last — and always effective — line of defense is a food thermometer and a spray bottle of kitchen cleaner.

The main risk posed by ground beef is the bacteria *E. coli*. A recent New York Times story highlighted one woman's suffering from a hamburger-borne infection and potential gaps in the chain of monitoring the safety of processed ground beef.

*E. coli* is an all-but unavoidable microbe found in many animals and inside most people. Most strains are harmless, or even beneficial. The strain called O157:H7 creates a chemical that is intensely poisonous to people.

That strain is one of several that make people sick and are sometimes found in meat or on raw vegetables. The Dallas County, Texas, Health Department recorded 29 *E. coli* illnesses last year and 13 this year, but the statistics do not reflect the source of the infection.

In most cases, people recover from the illness. But the Times story recounted the case of a woman whose infection left her paralyzed from the waist down. Her contaminated burger came from a company that mixes meats from many sources into its ground beef.

That's a common industry practice, used for most of the hamburger found on local food shelves. That means food safety depends on the care taken at multiple locations — in several states and countries.

For example, it's perfectly legal for meat processors to blend cheap, lean pieces of meat with fat that has been extracted from slaughterhouse trimmings that have been frozen, pressed,



cooked, separated and treated with ammonia.

But the system is not necessarily more dangerous than more narrowly controlled hamburger production, said Daniel Hale, a professor of meat science at Texas A&M University. Ground beef is tested by meat processors, commercial suppliers, and even by some retailers, he said. And while that system may need strengthening, it cannot guarantee that any particular hamburger will be free of *E. coli*.

"You can't test your way out of this problem," Hale said. "You cannot eliminate *E. coli* from the system. You are still going to have to cook it to kill it."

*E. coli* can be found in cows' intestines and feces. During the slaughtering process, despite efforts to prevent it, some microbes can find their way onto the surface of meat. Grinding can work these microbes deep into the mixture. Other steps in the industrial hamburger-making process offer other opportunities for contamination, if proper procedures aren't followed. Basic cuts of meat such as briskets or steaks are something like lumber, chopped directly from the source. Most ground beef is more like plywood, an engineered product created to meet specific consumer goals of standardized taste, fat content, shelf-life and price.

And while spot checks are done for bacteria at various stages of the process, even industry officials acknowledge that some people still get sick, even as beef

producers have spent millions of dollars on research and testing. Health officials say there are about 24,000 known cases of meat related *E. coli* related illness per year, with many more minor cases going undiagnosed. The known cases represent one illness for every 1.1 million pounds of beef produced in the United States.

That's a pretty good record, beef producers say. And while they stress the need for consumers to do their part, they acknowledge the need to produce uncontaminated meat.

"We can't say the consumer bears all the responsibility for safe product," said Russell Woodward a senior manager for the Texas Beef Council. "That's irresponsible."

### Understanding the labels

While most people use "ground beef," "hamburger" and "beef patties" interchangeably, federal regulations define them differently if the meat is ground and packaged at a USDA-inspected plant.

Ground beef is just what it says: ground up primal cuts and trimmings of raw cow.

Hamburger and beef patties can also contain added beef fat, some of which can be mechanically and chemically processed.

### What happens in the store

Consumers have many choices when it comes to buying beef, and different shops may cut and grind it differently to

## Meat preparation to stay safe

Experts say you can keep safe and avoid illness by using the "three C's":

**COLD:** Refrigeration below 40 degrees dramatically slows the growth of bacteria.

**COOK:** *E. coli* die after being exposed to 145 degrees of heat for 20 seconds. The official standard of 160 degrees for cooked hamburger offers additional safety.

**CLEAN:** Don't put cooked burgers where you had the raw meat. Don't use kitchen tools on cooked burgers that you used on raw meat. Clean all surfaces exposed to raw meat with a solution of either bleach or vinegar before putting other food down. Wash cutting boards in the dishwasher.

give buyers more options. Here's a general rundown by type of store:

### Grocery stores

Hamburger labeled simply as "ground beef" can contain many cuts of beef from several sources.

Some "fresh ground" meats can be minimally processed and coarse-ground at a plant before being ground in the store.

Beef labeled by cut is supposed to contain only that cut — meat labeled as "angus" should contain only angus beef.

Many stores offer meat ground from the trim of leftovers sliced in-store. This is often labeled as a "family pack" and may be the cheapest burger on the shelf.

Many grocery stores will custom-grind any piece of beef in their store.

### Butchers and high-end grocers

Specialty butchers custom grind particular cuts of meat, such as rib eye or sirloin, from specific sources.

High-end markets such as Central Market and Whole Foods grind their burger meat in the store from muscle meats.