

Every day of our young lives, we were told by our moms to wash our hands, brush our teeth, and to wash behind the ears. These were some of the most basic, yet important health lessons we were ever taught.

Yet, the truth is that altogether too many of us, including individuals, companies and even our government watchdogs, have stopped making sure these same high standards are being applied to our foods; as a result, the U.S. food supply is more dangerous today than it has ever been. That's why stopping the problem with the MiniMate activated oxygen generator is so important.

# How Safe Is Your Food?



Americans who eat homemade cookie dough often containing raw eggs—40 percent

In September 2006, two-year-old Kyle Allgood of Chubbuck, Idaho, experienced kidney failure and died after drinking a spinach smoothie his mother made him. His was only one casualty of an *E. Coli* 0157:H7 outbreak that eventually killed two other persons and resulted in 102 hospitalizations. Some two months later, another 71 people were sickened after eating at Taco Bells in five North-eastern states. These were not isolated incidents.

In 2002, a listeria outbreak linked to two poultry companies sickened 50 and killed 8. In 1993, *E. coli* sickened some 700 people who ate contaminated beef burgers in Washington, California, Idaho, and Nevada; there were four deaths. The federal Government Accountability Office recently put food safety high on its list of critically flawed federal programs.

## BEYOND WHAT MOM TAUGHT YOU

Mom taught us to wash our hands in warm water with soap, but most of us do only a quick, cold water rinse at most when it comes to our produce, and often we don't disinfect any of our other foods at all—and, these days, that simply isn't enough.

There's a whole lot more we can and should do for our personal protection. What Americans need is an advanced course in food hygiene: how to keep your food fresh and safe.

## FOOD SAFETY TIPS TO KEEP YOU ALIVE

Experts tell us that no food is sterile unless it is cooked. Anything raw—meat, poultry or produce—will have some bacteria, says Stan Bailey, Ph.D., a microbiologist with the U.S. Department of Agriculture. Keep in mind this summer grilling season that bacteria populations can double in half an hour at

90°F and in one hour at 70°F.

But even at 40 degrees, the lowest temperature of many refrigerators (which are usually between 30° and 48°F), bacterial populations double every six hours. Some of those foods most likely to pose a danger include raw egg dishes like mayonnaise and salad dressing, as well as raw ground beef and poultry.

## BASIC HYGIENE

First of all, always wash your hands before handling meats and poultry. Do not use the same knife for meat, pork, or poultry and for produce.

Wash knives well with hot water and soap before using on produce. Do not chop produce on the same surface where you cut meat, pork, and poultry. Thoroughly wash all surfaces where meat juices have dripped.

When grilling or simply in the kitchen, don't carry cooked meat to the table on the same platter you used to transport the raw meat to the grill.

Always thaw meats in the refrigerator or microwave, never on the kitchen counter or outside. The warmth of the kitchen or hot summer sun creates ideal conditions for growth and spread of bacteria. Meat and poultry thaw from outside to inside, so thawing your meat and poultry in the refrigerator will keep bacteria from growing on the outside while the inside thaws.

Store chicken for picnics or luncheons in an insulated container or ice chest. Any time you prepare food long before eating it, you should take special steps before serving to prevent contamination from the cafeteria germ *Clostridium perfringens*. These microscopic organisms are present

Meat recalls in 2006—31  
12 of those were linked to  
*E. Coli* or listeria



in the soil, in the intestines of animals and humans, and in sewage. Perfringens are one of the leading causes of food poisoning in the United States. You should hold cooked meat dishes at no less than 140°F. Better still, cook your dish ahead of time and refrigerate it. Then reheat it in the microwave, or reheat it in a warming oven at 200°F. for about one hour before serving. Wrapping the meat in foil and reheating it in its own gravy will keep it moist.

Should any meat or product have an “off” odor or an unusual color or texture, return it to the store. Do not taste. The microorganisms responsible for food poisoning cannot be tasted, anyway.

### IS WASHING ENOUGH?

Conventional washing techniques and use of produce washes can go a long way toward removing bugs from our produce, but washing is usually only 90 to 99 percent effective, and many raw fruits and vegetables can have punctures with biofilms consisting of microorganisms; these are difficult to wash off. Solutions of oregano oil mixed with a solution of apple puree can kill 50 percent of *E. coli* bacteria in three minutes. But until such solutions are commercialized, it is unlikely that washing alone will ever be enough.

That’s why scientists are intensively investigating the use of activated oxygen and other disinfectant methods to raise the bar of safety.

### SMART PROTECTION AGAINST FOODBORNE PATHOGENS

Although chlorine was once the chemical most commonly used by processors to eliminate germs from fresh produce, the U.S. Food and Drug Administration approved activated oxygen in 2001; without heat or chemicals, activated oxygen kills bacteria, viruses and molds on foods like produce, poultry, and meats. It is also environmentally friendly, says Michael Elliot, an expert in the development of such systems.

Elliot says that after 20 to 30 minutes, activated oxygen decomposes into oxygen without leaving any residue, meeting organic food standards. Other experts say activated oxygen is a “faster, safe and more effective disinfectant than chlorine.”

HealthQuest’s MiniMate uses pulsed activated oxygen to eliminate foodborne pathogens on fish, meat, poultry, and produce. It is also proven to maintain fresh produce longer, saving money by eliminating the need to throw out produce items that go bad after only a few days. The MiniMate is particularly important to have when people buy

organic produce, which is even more perishable.

At only \$49.95 and available at health food stores, MiniMate should be on the top of every shopper’s self-protection list.

### SCIENTIFIC STUDIES SUPPORT USE OF MINIMATE

One study analyzed the growth and survival of *Salmonella enteritidis* at spot-inoculated or stem-injected cherry tomatoes during passive storage versus activated oxygen treatment. In fact, activated oxygen treatment (as with the MiniMate) effectively killed off salmonella even on tomatoes with high inoculation levels, said the researchers.

For maintaining seafood freshness, researchers reported in the April 2005 issue of the *Journal of Food Protection* that pretreatment using activated oxygen “appears to be a promising means of prolonging the shelf life.” Reported in the same issue, activated oxygen was combined with ultraviolet light to effectively kill off salmonella contamination of eggs.

Over the years, many studies have shown activated oxygen to be effective at promoting freshness and reduced bacterial growth on almost all types of foods.

Here’s what a single MiniMate in your fridge will do:

- Eliminate mold growth on cheese.
- Reduce bacterial growth on fresh fruits and vegetables.
- Keep raw seafood and meats fresh longer, reducing bacterial populations.
- Break down pesticides and herbicides that have been sprayed on or added to foods.
- Extend the freshness and life of many foods.
- Naturally kill odors without any cover-up scents or fragrance.
- Reduce food spoilage.
- Prevent cross contamination of foodborne illnesses.
- Enhance your protection against foodborne illness.

Contamination can take place anywhere along the food chain. In fact, says Dr. Bailey, “The majority of foodborne illnesses would be prevented if consumers handled and cooked food properly.”

Follow all of the food handling and cooking tips in this article, and get a MiniMate for your fridge. You will have come a long way when it comes to protecting yourself and your family from dangerous foodborne pathogens. ■

Those who get sick from raspberries—1,800 in 2 cyclospora outbreaks



### Resources

The MiniMate from HealthQuest Technologies is available at health food stores and natural food markets nationwide. To find a store nearest you carrying the MiniMate or for more information, call 866-746-6247 or visit them online at [www.pionair.net](http://www.pionair.net).