

The Zap Generation

With microwaves in nearly every household, more and more products are aimed at children. But do kids know what's good—or safe—for them?

BY LAURA SHAPIRO

There once was a young prince named Kiddle," the story begins; and although his name makes him sound like the hapless hero of a Yiddish folk tale, Kiddle is the creation of Geo. A. Hormel & Co., makers of processed foods. Hormel is using what it calls the "legend" of Prince Kiddle to promote Kid's Kitchen, a new line of microwavable dinners for children. According to the story printed in the Kid's Kitchen Club newsletter, Prince Kiddle was lost in the forest one day, hungry and weak, when he came across a cottage and found a talking bird inside. The bird invited him to open the refrigerator, where Prince Kiddle saw fruit, cheese, bread, chicken—every sort of food imaginable. "You're going to have to make the meal yourself," warned the bird. "It will be hard work. . . . Your hands probably will cramp from holding the vegetables, and your fingers will be worn out—and maybe even cut. . . ." Prince Kiddle burst into tears. Just then he spied a microwavable dinner, and although the bird tried desperately to stop him, he quickly heated it up. Presto! He had broken a spell cast by an evil wizard who wanted to discourage children from cooking for themselves.

"Beware of fresh food" certainly makes a revolutionary moral for a children's story, but Hormel's implicit message places the company right in the mainstream of the microwave era. With a microwave oven in roughly three out of four American households, the food industry is frantic to develop new, microwavable meals and snacks. Two years ago shoppers spent about \$1 billion on microwavable foods; last year sales exceeded \$2 billion. And increasingly, these products are being marketed to kids. Hormel is competing with several other companies that have introduced microwavable dinners for kids, and TV ads now feature small children triumphantly heating their own snacks. Blaine Jacobson, marketing director of MicroMagic foods, estimates that "kid food"—popcorn, pizza, hamburgers and the like—accounts for some two thirds of all microwavable-food sales. According to studies, children as young as 4 may be nuking their own pop-

corn. "The age a child starts to use the microwave has become a bragging point with moms—like tying shoes and telling time," says Delia Hammock, associate director of the Good Housekeeping Institute.

While the food industry busies itself with such innovations as the orange-flavored microwavable milkshake, however, questions are emerging about the safety of microwave cooking—especially when children are in charge. "Parents let their kids use the microwave because they perceive it as safer than the stove," says Matthew P. Maley, director of risk management at the Shriners Burns Institute in Cincinnati, who has discovered a high incidence of minor burns among microwave-oven users. "What happens is that a child is instructed how to do one thing in the microwave—for instance, heat a pastry. Then the child, all by himself, decides to try something else—say, popcorn. He takes out the bag when it's done; the bag doesn't transmit heat, so he opens it close to his face and the vapor is 182 degrees."

Children have also been injured because they weren't on the lookout for what's come to be called the jelly-doughnut effect. Sugar heats very quickly in the oven—so quickly that if you warm up a jelly doughnut and bite into it, the outside may be lukewarm while the jelly is hot enough to burn your esophagus. Indeed, because the ovens heat so unevenly, all food should be tested carefully when it emerges. Maley notes the case of a child who heated a cup of soup, stuck his finger in the middle and decided the soup was just right, then drank from the edge of the cup and burned himself. Other accidents occur when the ovens are placed too high to be easily

reached by small children. They grope blindly over their heads to pull dishes from the oven, and hot food spills out.

"The microwave oven is what I call an attractive hazard," says Louis Slesin, editor of a health-and-safety newsletter called Microwave News. "On a rainy day a kid could climb up on a stool, put his face to the door and watch something cook for a long time. It's mesmerizing, like watching a fish tank, but his eye will be at the point of maximum microwave leakage. We don't know the threshold for cataract formation—the industry says you need tons of exposure, but some litigation and literature say you don't need much. Children younger than 10 or 12 shouldn't use the oven unsupervised. It's not a toy, it's a sophisticated, serious, adult appliance, and it shouldn't be marketed for kids."

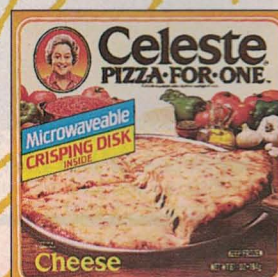
Meanwhile, scientists have been making unpleasant discoveries about the way those pizzas and french fries are packaged. Microwave ovens cook with moist heat, and the culinary results are similar to those obtained by steaming. That's fine for vegetables but ter-



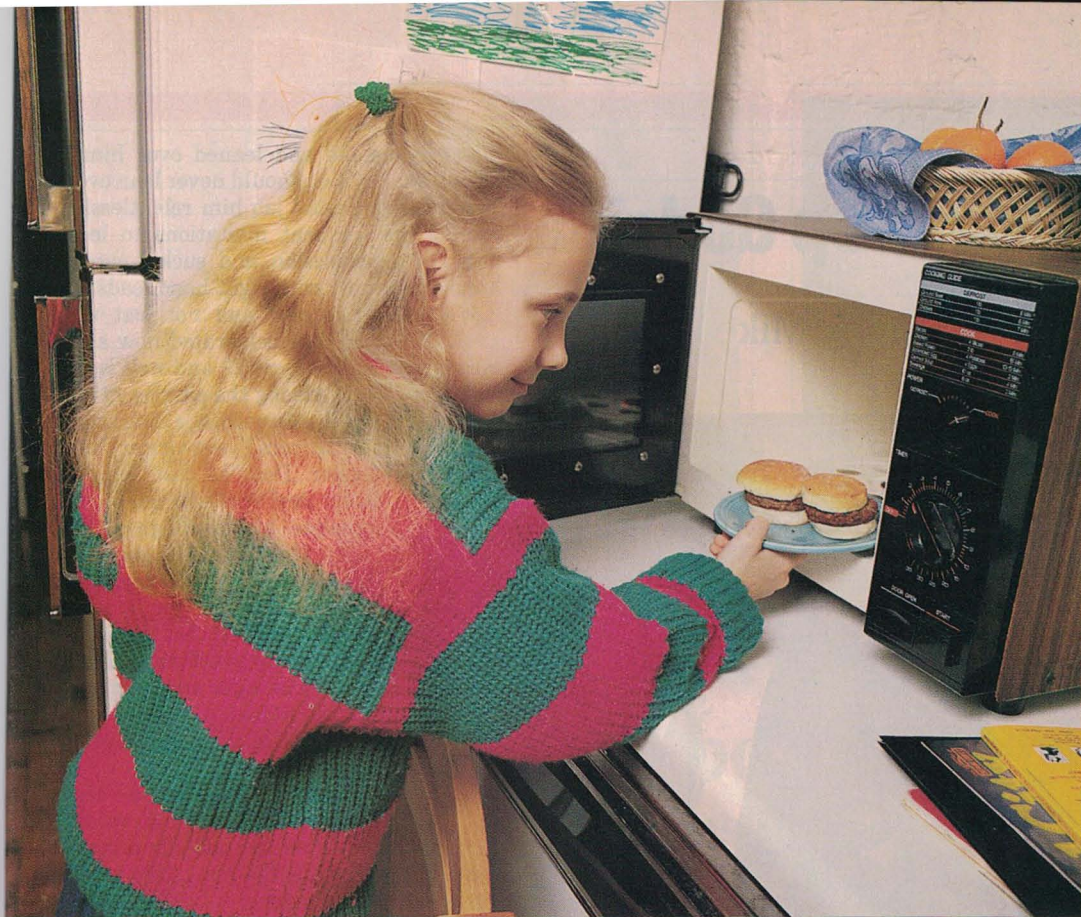
What's cooking?
Good question. According to the FDA, in some cases it may be the package.



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PETER FREED



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Best Bites

Want to cook real food in your microwave oven? Here's how:

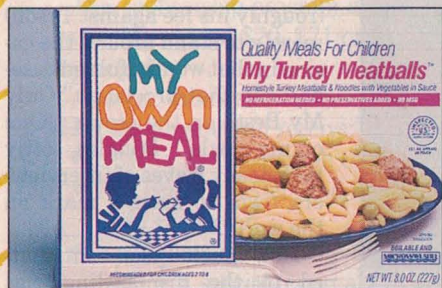
Microwave Gourmet, by Barbara Kafka (*Morrow*). A must for serious microwavers.

Microwave Gourmet Healthstyle Cookbook, by Barbara Kafka (*Morrow*). Her latest.

Microwave Entertaining, by Marcia Cone & Thelma Snyder (*Simon and Schuster*). Good idea.

Microwaving with an International Flair, by Susan Brown Draudt (*HPBooks*). Bright, simple recipes.

Warning: Heat 'em and weep



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rible for pizza crust. So a growing number of products come in "heat susceptor" packaging—a cooking tray or cover made of metalized plastic—which absorbs microwave energy and gets hot enough to brown or crisp the food. At temperatures that may rise to 500 degrees Fahrenheit, however, components of the packaging materials can break down, permitting chemicals to pass into the food. The Food and Drug Administration is considering changes in the regulations governing these packages, and has asked manufacturers to submit specific information about the chemicals in use and how they react to high temperatures. But since basic microwave technology is not expected to develop much further, the industry is heavily dependent on what it calls "active packaging" to make up for the shortcomings of moist heat. Robert LaGasse, executive director of the International Microwave Power Institute, a society of teachers, scientists and other professionals in the microwave industry, denies there are any problems with frozen-food packaging; but consumers may wish

to be cautious while the FDA investigates.

Similar problems are associated with the use of plastic cling wraps, some of which are made with chemicals that can leak into the food at microwave temperatures. "You want a wrap with PVDC [polyvinylidene chloride], not PVC [polyvinyl chloride]," says LaGasse, but he admits there's no way to tell from the package what you're getting. Barbara Kafka, a food columnist and the author of two popular microwave cookbooks, now advises readers to avoid letting any plastic wrap touch the food while it's cooking.

Chemical smell: Surprisingly, what would appear to be the most obvious drawback to eating microwavable foods—the flavor—does not appear to have cut into sales. Convenience foods that have been reformulated or especially created for the microwave oven often taste distinctly worse than their conventionally processed counterparts, perhaps because the recipes haven't caught up with the technology. The flavor of oils becomes more prominent in the microwave oven, and the flavors of dried herbs, salt and pepper are intensified, so it's harder to mask the use of second-rate ingredients. But apparently the American palate has so deteriorated under the assault of heavily processed foods that people no longer even expect to taste anything beyond salt, sugar and grease. It's hard to think of another reason why anyone would accept such products as the MicroMagic chocolate milkshake, which has the flat, harsh flavor of poor-quality melted ice cream, or the Pills-

bury pizza, with its crust as thin and hard as a stale cracker. But the low point in microwavable foods may be the Betty Crocker MicroRave cake mix. Ready in just four minutes, the results are excruciatingly sweet, with an acrid chemical smell and the texture of a damp sponge.

According to Leonard Lewis, executive editor of *Frozen Food Age*, a trade journal, breakfast dishes are the fastest-growing segment of the market—"In the time it takes to prepare a bowl of oatmeal, people can send their kids off to school with a full meal under their belts." That bowl of oatmeal looks more virtuous than ever, though, compared with some of the breakfast products available. Pillsbury's blueberry pancakes are greenish and gluey; and Swanson's Great Starts line—including bacon and eggs, and a peculiarly multicultural ham-and-cheese sandwich on a bagel—features flabby bacon, dry eggs and the pervasive taste of the processing ingredients, chiefly salt.

Children may be fussy about food, but that doesn't mean their standards are high. Those 4-year-olds slated to grow up on do-it-yourself microwave cookery are in for a dismal future. "We are in the process of microwaving away 50,000 years of glorious culinary history in order to satisfy a dubious quest for convenience," writes food expert David Goldbeck in his manual "The Smart Kitchen." The safety issues associated with microwave ovens may be resolved in time, but when a child learns to call a four-minute mess of sodden sweeteners a "cake," something dies. ■