Consumer Health Information



Raw Dough's a Raw Deal and Could Make You Sick

D o you find it hard to resist gobbling up a piece of raw dough when making cookies, or letting your children scrape the bowl? Do your kids use raw dough to make ornaments or homemade "play" clay? Do you eat at family restaurants that give kids raw dough to play with while you're waiting for the food?

If your answer to any of those questions is yes, that could be a problem. Eating raw dough or batter—whether it's for bread, cookies, pizza or tortillas—could make you, and your kids, sick, says Jenny Scott, a senior advisor in FDA's Center for Food Safety and Applied Nutrition.

According to Scott, the bottom line for you and your kids is don't eat raw dough. And even though there are websites devoted to "flour crafts," don't give your kids raw dough or baking mixes that contain flour to play with.

Why? Flour, regardless of the brand, can contain bacteria that cause disease. The U.S. Food and Drug Administration (FDA), along with the Centers for Disease Control and Prevention (CDC) and state and local officials, is investigating an outbreak of infections that illustrates the dan-



gers of eating raw dough. Dozens of people across the country have been sickened by a strain of bacteria called Shiga toxin-producing *E. coli* O121.

The investigation found that raw dough eaten or handled by some of the patients was made with General Mills flour produced in a Kansas City, Missouri, facility. Subsequent tests by the FDA linked bacteria in a flour sample to bacteria from people who had become ill.

General Mills conducted a voluntary recall of 10 million pounds

of flour sold under three brand names: Gold Medal, Signature Kitchen's, and Gold Medal Wondra (*http://www.fda. gov/food/recallsoutbreaksemergencies/ outbreaks/ucm504192.htm*). The varieties include unbleached, allpurpose, and self-rising flours. Flour has a long shelf life, and many people store bags of flour for a long time. If you have any of these recalled items in your home, you should throw them away.

Some of the recalled flours had been sold to restaurants that allow

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Common symptoms for Shiga toxin-producing E. coli are diarrhea (often bloody) and abdominal cramps, although most people recover within a week. But some illnesses last longer and can be more severe, resulting in a type of kidney failure called hemolytic uremic syndrome (HUS).

children to play with dough made from the raw flour while waiting for their meals. CDC is advising restaurants not to give customers raw dough.

Why Flour?

People often understand the dangers of eating raw dough due to the presence of raw eggs and the associated risk with *Salmonella*. However, consumers should be aware that there are additional risks associated with the consumption of raw dough, such as particularly harmful strains of *E. coli* in a product like flour.

"Flour is derived from a grain that comes directly from the field and typically is not treated to kill bacteria," says Leslie Smoot, Ph.D., a senior advisor in FDA's Office of Food Safety and a specialist in the microbiological safety of processed foods. So if an animal heeds the call of nature in the field, bacteria from the animal waste could contaminate the grain, which is then harvested and milled into flour.

Common "kill steps" applied during food preparation and/or processing (so-called because they kill bacteria that cause infections) include boiling, baking, roasting, microwaving, and frying. But with raw dough, no kill step has been used.

And don't make homemade cookie dough ice cream either. If that's your favorite flavor, buy commercially made products. Manufacturers should use ingredients that include treated flour and pasteurized eggs.

Symptoms and Who Gets Sick

Common symptoms for Shiga toxinproducing *E. coli* are diarrhea (often bloody) and abdominal cramps, although most people recover within a week. But some illnesses last longer and can be more severe, resulting in a type of kidney failure called hemolytic uremic syndrome (HUS). HUS can occur in people of any age, but is most common in young children under 5 years, older adults, and people with weakened immune systems.

Parents of young children should be particularly aware. For instance, if your child is in day care or kindergarten, a common pastime may be art using "play" clay that is homemade from raw dough. Even if they're not munching on the dough, they're putting their hands in their mouth after handling the dough. Childcare facilities and preschools should discourage the practice of playing with raw dough.

Handle Foods Safely

FDA offers these tips for safe food handling to keep you and your family healthy:

- Do not eat any raw cookie dough, cake mix, batter, or any other raw dough or batter product that is supposed to be cooked or baked.
- Follow package directions for

cooking products containing flour at proper temperatures and for specified times.

- Wash hands, work surfaces, and utensils thoroughly after contact with flour and raw dough products.
- Keep raw foods separate from other foods while preparing them to prevent any contamination that may be present from spreading. Be aware that flour may spread easily due to its powdery nature.
- Follow label directions to chill products containing raw dough promptly after purchase until baked.

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