

# Bag Lunch a Foodborne Illness Risk for Preschoolers: Study

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Parents, take note: A simple sack lunch may increase the risk of [foodborne illness](#) for the young children who bring them into daycare and school, according to a new study.

University of Texas researchers took a temperature-measuring gun into nine of the state's child care centers to see if the sack lunches of more than 700 kids between the ages of 3 and 5 were cooler than about 40 degrees Fahrenheit -- a temperature cold enough to discourage the growth of [germs responsible for a variety of foodborne illnesses](#) -- about an hour and a half before they were to be eaten.

What they found after checking the temperature of [foods that could harbor these bugs](#) was that more than nine out of 10 of these items were kept at temperatures considered unsafe. They also found that even the lunches that included ice packs or were stored in a refrigerator were still usually warm enough to pose a concern.

The study was published online in the journal [Pediatrics](#).

"We thought it might be bad, but we did not know it was that bad," said study author Fawaz Almansour of the University of Texas at Austin Department of Nutritional Sciences.

"When the child comes back from the daycare center with a stomachache, they may think, 'Oh, maybe they caught a virus from someone else,'" Almansour said. "You don't think what you pack at home would be the cause."

Foodborne illness is an issue of concern for all age groups. According to the U.S. Centers for Disease Control and Prevention, an estimated 76 million people in the U.S. become ill from foodborne bugs every year, and about 5,000 of these cases are fatal. But the authors of the study note that these illnesses are of special concern when it comes to young children. CDC studies in 2009 found that children younger than 4 suffer food-related bacterial infection at a rate 4.5 times that experienced by adults 20 to 49.

Still, when it came to the question of how dangerous these sack lunches really were to kids, infectious disease experts not involved with the research said that while the issue is worth consideration, it should not be a reason for parents to panic.

"The risk from improperly refrigerated sack lunches is real, but relatively minor in the overall picture of foodborne illnesses," said Dr. Harley Rotbart, pediatric infectious diseases expert at the University of Colorado School of Medicine and author of *Germ Proof Your Kids*. "The much greater risks come from inadequate handwashing -- by food preparers and food consumers -- and from home kitchen contamination of countertops, sinks and other inanimate objects with insufficiently cooked meat, chicken and fish."

Dr. Michael Muszynski, professor of pediatric infectious diseases at the Florida State University College of Medicine in Tallahassee, called the results of the study "concerning, since even lunches packed with multiple ice packs reached unsafe temperatures that would encourage the growth of bacteria that cause food-related illnesses."

He noted, however, "We do not know how the risks of sack lunches stack up to other sources of foodborne diseases in children."

And Dr. William Schaffner, chair of the Department of Preventive Medicine at Vanderbilt University School of Medicine in Nashville, Tenn., said he could not recall a case in which a sack lunch was a definite cause of foodborne illness in a child.

"Now, in fairness, that may be because a sack lunch causes only a single illness rather than an outbreak of disease, which is more likely to come to public health attention," Schaffner said. "Nevertheless, if sack lunches were a regular problem, it would have come to attention."

The doctors said parents can also take steps to minimize the threat. Dr. James Nataro, chair of pediatrics at the University of Virginia School of Medicine in Charlottesville, said certain foods -- particularly leftovers -- should be left out of kids' sack lunches.

"One should keep in mind that if leftovers are served to children in their bag lunches, these may require much less time for the bacteria to multiply to unsafe levels," Nataro said.

"Parents can pack the safest possible food: vegetables, fruits, whole grains," Schaffner said. "Avoid meats -- they can indeed spoil."

And Schaffner added that parents should not forget one common favorite among kids.

"Stick with peanut butter and jelly and an apple," he said. "They are both delicious and safe."