

Microwave ovens need added safety controls

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Microwave ovens should be equipped with safety controls to prevent children from opening them and being burned by hot foods and drinks, according to a study published today by University of Chicago Medical Center researchers in the October 2008 issue of the journal *Pediatrics*.

Severe scalds can be devastating for children because they can leave scars and wounds that can restrict movement. The study recommends extra protections, such as locking mechanisms and stepped-up warning campaigns, to reduce accidental injuries to children when they remove food from the microwave.

"Aside from efforts to set hot water heaters at or below 120 degrees, there have been few scald prevention efforts that have been effective," said Kyran Quinlan, MD, MPH, a study author and associate professor of pediatrics at the Medical Center.

Study author Lawrence Gottlieb, MD, professor of surgery and director of the Medical Center's Complex Wound Center, added that burns have long-lasting effects on appearance and physical function. "It is far better to prevent these injuries than to treat painful burns and try to fix the resultant scars," he said.

The researchers suggest that microwave ovens include a locking mechanism to make it difficult for young children to open a microwave after food or drinks have been heated. Many current models have an option to lock the oven which requires the user to hold the start or stop/clear button for three to four seconds before it will operate.

However, this does not stop a child from opening the oven after something has been heated, the study noted.

The study focused on 104 patients less than 5 years old who were admitted to the Medical Center's Burn Unit between Jan. 1, 2002, and Dec. 31, 2004, for unintentional injuries, but not for tap water scalds. Researchers found that 90 percent of the 104 children were scalded by hot food or liquids.

Two unexpected patterns led up to the injuries. In the first, children between 18 months and 4 years were burned after they opened the microwave and removed hot foods or liquids themselves.

In the second, older children, ages 7 to 14, inadvertently burned younger children in their care. The incidents occurred when the older child accidentally spilled hot food on the young child, or when the younger child was being supervised by the older child.

Burn injuries were most frequent in children between 10 and 21 months old. Most injuries occurred while children were at home being cared for by their family or primary caregiver.

Treatment for children in the study involved skin grafts and an average hospital stay of eight days. Forty-five children suffered burns to more than 10 percent of their bodies. In some of the more severe cases, children endured prolonged intubation and tracheostomy, and developed wound infections. Seven children required inpatient rehabilitation.

"Microwaved foods and drinks can cause serious scald injuries to young children," study author Gina Lowell, MD, said. "While parents may well recognize the stove as a danger area in the kitchen, they may not realize that their toddlers can open the microwave, remove what was heated, and scald themselves."

The study added that major sources of safety information from parenting books, in addition to child and home safety organizations, inadequately address the threat posed by food heated in microwaves.

For youngsters, microwaves can be a playful attraction that leads to trouble. Children open and close it to imitate their parents' actions and may think of the microwave as toy.

Source: University of Chicago Medical Center

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