

# Best Food Cooling Practices for Restaurants

## EHS-Net Study Findings and Recommendations

Hot food needs to be cooled quickly to stop germ growth and foodborne illness outbreaks caused by germs. From 1998 to 2008, hot food cooled too slowly led to 504 outbreaks of foodborne illness in restaurants. If we learn more about how restaurants cool food, we can improve how they do it. And we can lower the number of foodborne illness outbreaks.

The U.S. Food and Drug Administration (FDA) Food Code includes advice on how to cool food safely and quickly. This advice includes cooling food

- to 41°F in 6 hours and
- in a way that allows food to cool quickly. Food can be cooled quickly
  - in shallow pans and
  - in a way that air can flow around and in the pans (ventilated).

The Food Code also recommends that food cooling time and temperature be monitored during cooling.

### What the Study Described

The purpose of this study is to examine how cooling practices like pan depth, ventilation, and time and temperature monitoring are linked to how fast food cools.

### What the Study Found

Many of the foods with cooling times slower than in the Food Code were cooling only slightly slower than the guidelines. Restaurants with only slightly slower cooling foods may need only to make small changes to their cooling practices to comply with the Food Code guideline.

Estimates showed that 35% of the foods we monitored while cooling would have taken longer than 6 hours to reach 41°F (the Food Code guideline).

Following the Food Code guidelines of storing foods at shallow depths, ventilating foods, and monitoring cooling food time or temperatures help foods cool faster.



This study was conducted by the Environmental Health Specialists Network (EHS-Net). EHS-Net is a federally funded collaboration of federal, state, and local environmental health specialists and epidemiologists working to better understand the environmental causes of foodborne and waterborne illness. Visit EHS-Net at <http://www.cdc.gov/nceh/ehs/EHSNet>.

Following the Food Code guidelines of storing foods in shallow pans, ventilating foods, and monitoring food time or temperatures led to faster food cooling times.

Monitoring was the most effective cooling practice.

### EHS-Net Recommends

Restaurant management should consider storing foods in shallow pans, ventilating foods, and keeping track of cooling food time or temperatures. These practices help foods cool faster.

Food safety programs should consider focusing on the practices of storing food in shallow pans, ventilating foods, and keeping track of food time or temperature during their inspections.

- The lack of these practices can be markers of a slower cooling process.
- These practices can be assessed far more quickly than can the full cooling process.



### Key Terms

**Environmental health specialists:** public health workers who enforce health and safety standards related to food and other consumer products.

**Foodborne illness:** an illness caused by germs in food.

**Foodborne illness outbreak:** when two or more people have the same sickness after eating food from the same place.

**Ventilation:** air flow around an object.