1930 Ninth Avenue Helena, MT 59601

PH: 406.4HEALTH or 406.443.2584

Fax: 406.457.8990

# FACT SHEET Disease Prevention for Parents and Childcare Providers

# **Cooling Food Safely**

Children benefit from nutritious, well-balanced meals. Preparing more than one meal at once can save time, and is a good option when food is prepared, cooked, and cooled safely.

#### Foods that Will Grow Bacteria

There are many food items that will support the growth of bacteria. These foods are called "potentially hazardous foods" and include such items as meats, dairy, eggs, casseroles, cooked pasta, cooked rice and beans, soups, stews, cooked vegetables, cream pies, cheesecakes, sauces, and gravies. Most bacteria that cause foodborne illness do not grow if the food is 135° F or hotter or 41°F or colder. It is important to cool hot food quickly to minimize the time that food is at an unsafe temperature.

### **Spores**

Many foods, including meat, vegetables, and dried rice or beans may contain bacterial spores. These spores can withstand heat and drying so they survive the cooking process. The spores may be present in cooked food and may germinate and begin to grow while food is cooling. The longer it takes to cool, the more bacteria can grow. Bacteria can also be introduced to food by our hands, surfaces, or even from the air.

#### **Toxins**

Some bacteria produce toxins as they grow and reproduce. Some of these toxins take very high temperatures and long periods of time to destroy, so they are not destroyed when leftovers are warmed up. The toxins that are present may cause foodborne illness, including vomiting and/or diarrhea.

## **Cooling Food Safely**

Cool potentially hazardous food from

- 135°F to 70°F within two hours
- 70°F to 41°F within another four hours

Over⇒

Use a thermometer to check temperature. Dial-type thermometers that read from 0° to 220°F are cheap and are readily available at the grocery store.

#### How to Cool

To cool quickly, food must usually be cooled using at least one and sometimes a combination of the following methods:

- In the freezer or refrigerator.
- In a container in an ice bath (fill your sink with water, add ice cubes, place container of food in the ice water and stir the food as often as possible).
- In shallow layers or small amounts (1 2" deep).
- Uncovered; whatever method you choose, leave the food uncovered while it cools to let the heat escape.

Using the freezer is often the most efficient way to cool food. Home-type refrigerators are not designed to cool food quickly, especially not in large volumes. Food can also be split up into several different containers to cool. Consider coming back later to cover food, after it has reached 41°F or less.

### **Thawing**

It is also important to thaw food safely. When food is thawed at room temperature, the outside of the food may quickly reach room temperature even though the center of the food is still frozen. This is not safe. To thaw food safely,

- Thaw food in the refrigerator.
- Thaw under cold running water.
- Thaw as part of the cooking process.
- Thaw in the microwave just before cooking or reheating.

Leftovers are often a good way to provide nutritious meals. Just remember to cool food quickly in order to have safe meals.

Please contact us with any questions that you may have at (406) 447-8352.