During the holidays, many people plan and prepare meals to feed more than just their own family. Feeding a crowd can raise the risk of foodborne illness from pathogens that you can’t see, smell or taste. Consider these tips on how to safely prepare, cook and serve meals to keep those at your table safe from foodborne illness.

**Temperature Danger Zone**

Harmful bacteria grow fastest between 41°F and 135°F. Minimizing time in this range, called the temperature danger zone, reduces growth of these harmful bacteria. Foods that can support the growth of harmful bacteria should not be left in this temperature range for more than 4 hours.

Examples: cooked vegetables, pasta and rice; cooked and raw meat, poultry and fish; cut melons, tomatoes and leafy greens.

**Personal Hygiene**
- Wear clean clothes and aprons when cooking and serving
- Cover cuts and sores with water proof bandages
- Do not prepare or handle food if you have had diarrhea or vomited in the last 48 hours
- Wash hands thoroughly and often when preparing food

**Cleaning and Sanitizing**
- Clean dishes and prep equipment by washing them in a dishwasher or hot soapy water
- To sanitize dishes, equipment and surfaces that do not go in a dishwasher dip them in a bleach solution, or another sanitizer approved for food surfaces
  - To make a bleach solution mix 1 tablespoon of bleach in 1 gallon of water
  - Be sure to follow all manufacturers’ directions and never mix chemicals together

**Handling Leftovers**
- Refrigerate perishable leftovers as soon as the meal is over
- Throw away/compost perishable food left at room temperature for 4 hours or more
- Place foods in shallow containers before refrigerating for quicker cooling
- Eat leftovers within 7 days

**Cooking Food Safely**

Check food temperatures with a calibrated digital thermometer. Measure at the thickest spot and stir liquid-based foods before checking temperature. For products that have a hold time longer than <1 second, ensure the food maintains the appropriate temperature or hotter for the entire duration.

<table>
<thead>
<tr>
<th>Food</th>
<th>Cook Temperature and Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roast beef</td>
<td>130°F for 112 min., 145°F for 4 min.</td>
</tr>
<tr>
<td>Beef, pork, veal and lamb, fish and shellfish</td>
<td>145°F for 15 sec.</td>
</tr>
<tr>
<td>Ground meat, sausage, fish sticks</td>
<td>158°F &lt; 1 sec., 155°F for 17 sec.</td>
</tr>
<tr>
<td>Stuffed pasta or casseroles</td>
<td>165°F &lt; 1 sec.</td>
</tr>
<tr>
<td>Poultry and wild game animals</td>
<td>165°F &lt; 1 sec.</td>
</tr>
<tr>
<td>Reheated food to be held hot for serving</td>
<td>165°F &lt; 1 sec.</td>
</tr>
</tbody>
</table>

**Hot and Cold Holding**

Hold hot foods at 135°F or higher with chafing dishes, warming trays or slow cookers. Hold cold at 41°F or lower by placing serving dishes in or on larger dishes filled with ice.

For more information contact ncsafeplates@ncsu.edu | Updated 10.4.21