After a flood, what the public should know about...

Food Safety

Flood waters covered our food stored on shelves and in cabinets. What can I keep and what should I throw out?
Do not eat any food that may have come into contact with flood water. Discard any food that is not in a waterproof container. Food containers that are not waterproof include those with screw-caps, snap lids, pull tops and crimped caps. Also, throw out cardboard juice/milk/baby formula boxes and home-canned foods if they have come in contact with flood water, because they cannot be cleaned and/or sanitized.

How do I know whether to throw away canned foods that were exposed to flood water? Inspect canned foods and discard any food in damaged cans. Can damage is shown by swelling, leakage, punctures, holes, fractures, extensive deep rusting, or crushing/denting severe enough to prevent normal stacking or opening with a manual, wheel-type can opener.

Can I eat the food that was in cans or sealed pouches?
Undamaged, commercially prepared foods in all-metal cans and "retort pouches" (such as flexible, shelf-stable juice or seafood pouches) can be saved by following these instructions:

• Remove the labels, if they are the removable kind, since they can harbor dirt and bacteria.
• Brush or wipe away any dirt or silt.
• Thoroughly wash the cans or retort pouches with soap and water, using hot water if it is available. Rinse the cans or retort pouches with water that is safe for drinking, if available, since dirt or residual soap will reduce the effectiveness of chlorine sanitation.
• Sanitize cans and retort pouches by immersion in one of the two following ways:
  o Place in water and allow the water to come to a boil and continue boiling for 2 minutes, or
  o Place in a freshly-made solution consisting of one tablespoon of unscented liquid chlorine bleach per gallon of drinking water (or the cleanest, clearest water available) for 15 minutes.
• Air dry cans or retort pouches for a minimum of one hour before opening or storing.
• If the labels were removable, then re-label your cans or retort pouches, including the expiration date (if available), with a marking pen.
• Food in reconditioned cans or retort pouches should be used as soon as possible.
• Any concentrated baby formula in reconditioned, all-metal containers must be diluted with clean, drinking water.

May I refreeze the food in the freezer if it thawed or partially thawed?
Some food may be safely refrozen if the food still contains ice crystals or is 40°F or below. Throw out items in the freezer or refrigerator that have come into contact with raw meat juices.
Some of the food in the freezer started to thaw or had thawed when the power came back on. Is the food safe? You will have to evaluate each item separately. Never taste food to determine its safety! Refrigerated food should be safe as long as the power was out for no more than four hours and the refrigerator door was kept shut.

- Check the thermometer in the back of your refrigerator or freezer.
- If the appliance thermometer stored in the freezer reads 40 °F or below, the food is safe and may be refrozen. If a thermometer has not been kept in the freezer, check each package of food to determine the safety.
- You cannot rely on appearance or odor.
- If the food has ice crystals or is 40 °F or below, it is safe to refreeze it.
- Throw out perishable food such as meat, poultry, fish/seafood, milk, eggs and leftovers that have been above 40 °F for two hours.

I can't afford to throw out all of the food that was in my refrigerator/freezer. Can I really get sick if I eat the food? If you plan to eat refrigerated or frozen meat, poultry, fish or eggs while it is still at safe temperatures, it's important that each item is thoroughly cooked to the proper temperature to assure that any foodborne bacteria that may be present is destroyed. However, if at any point the food was above 40 °F for two hours or more it should be thrown away.

How long can my refrigerator/freezer keep food safe when the power is off? Keep the refrigerator and freezer doors closed as much as possible to maintain the cold temperature. The refrigerator will keep food cold for about four hours if it is unopened. A full freezer will keep the temperature for approximately 48 hours (24 hours if it is half full) if the door remains closed. Buy dry or block ice to keep the refrigerator as cold as possible if the power is going to be out for a prolonged period of time. Fifty pounds of dry ice should hold an 18-cubic foot fully-stocked freezer cold for two days.

### Bleach dilution

**How do you make a diluted bleach solution?**
This depends how you will use the mixture/solution. See the chart below.

<table>
<thead>
<tr>
<th>Use</th>
<th>Bleach (unscented liquid chlorine)</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>To drink</td>
<td>1/8 teaspoon or 8 drops</td>
<td>1 gallon</td>
</tr>
<tr>
<td>To rinse plates/dishes</td>
<td>1 tablespoon</td>
<td>1 gallon</td>
</tr>
<tr>
<td>To clean hard household surfaces (countertops, food cans, toys, flatware, tools, etc.)</td>
<td>1 cup</td>
<td>1 gallon</td>
</tr>
<tr>
<td>To kill mold</td>
<td>1 cup</td>
<td>1 gallon</td>
</tr>
<tr>
<td>To clean pool surfaces</td>
<td>1 cup</td>
<td>5 gallons</td>
</tr>
</tbody>
</table>

**For more information**
- Centers for Disease Control and Prevention (CDC) [http://emergency.cdc.gov/disasters/](http://emergency.cdc.gov/disasters/)
- Federal Emergency Management Agency (FEMA) [www.fema.gov](http://www.fema.gov) (800) 621.3362